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Fiscal Exchange, Tax Expenditure and Tax Morale: Evidence from Kenya

Alex Oguso
Assistant Manager, Research & Tax Modeling Unit
Kenya Revenue Authority
Email: alexstariko@gmail.com

Nicholas Sila
Research Officer, Surveys & Business Analysis Unit
Kenya Revenue Authority
Email: nichsila@gmail.com

Abstract

To enhance tax compliance and domestic revenue mobilization, it is critical to understand the factors that influence tax morale in a country. To this end, this study sought to examine the influence of fiscal exchange, tax expenditure and selected fiscal factors on tax morale in Kenya. The study employed desk research and survey design covering the Kenya Revenue Authority regions across the country. Stratified random sampling was employed in coming up with the sample of 1,100 taxpayers, out of which 955 responded. The taxpayers were categorized into five KRA regions and then into type of taxpayers (large, medium and small/individual taxpayers). The survey data collected was analyzed using probit model. The results show that the factors that significantly influence tax morale in Kenya are individuals' age, gender, level of education, trust in KRA, fiscal exchange between the government and the taxpayers, tax expenditure, accountability for taxes paid and satisfaction with democracy in Kenya. To improve on tax morale in the country, the study recommends enhanced tax education targeted at the primary and secondary school levels, and enhanced civic education and sensitization to the public on tax issues. To boost tax morale in the country, the study also recommends enhancing of fiscal exchange, reduction of tax expenditures, enhanced accountability and transparency in use of taxes and reducing the perceived level of corruption in the public sector.

JEL Classification: H260, H300,

Keywords: ***Fiscal Exchange, Fiscal Space, Tax Expenditure, Tax Morale, Tax Compliance***

1.0 Introduction

Tax administrators worldwide tend to place a great deal of emphasis on improving tax compliance through enforcement of tax laws and taking up measures to create a social norm of voluntary compliance (Luttmer and Singhal, 2014). Increasing voluntary compliance is a primary concern of revenue authorities across the world. For instance, one of the initiatives of Kenya Revenue Authority (KRA) in its revenue framework over the 2015-2018 plan period was to enhance voluntary tax compliance by enhancing transparency, accountability and integrity in its operations, and to enhance communication with the public so as to achieve weighted taxpayer compliance of 65 percent (KRA, 2015). This highlights why most tax authorities pursue policies targeted at non-pecuniary factors that are believed to play an important role in boosting tax morale in their economies. Tax morale encompasses various forms of intrinsic motivation that may induce people to voluntarily comply with laws (Luttmer and Singhal, 2014). The taxpayers' intrinsic motivation to comply and pay taxes is a multidimensional concept that is not directly observable. Mangoting and Sukoharsono (2015) argue that taxpayers as rational human beings make assumptions that they should get the benefits from tax payment whenever they pay taxes. When paying taxes, taxpayers do not get direct return for tax payment, but the benefits are later on provided in form of public service, good facilities and infrastructure built by government as results of tax payments. This means that an improvement on the fiscal space, which gives the government flexibility in its spending choices, is important in enhancing fiscal exchange (adequate provision of public goods and services in return for taxes paid). Adequate fiscal exchange is in turn expected to boost tax morale in the country. The International Monetary Fund (IMF) (2016) defines fiscal space as "a multi-dimensional concept reflecting whether a government can raise spending or lower taxes without endangering market access and debt sustainability". Heller (2005) defines fiscal space as "the availability of budgetary room that allows a government to provide resources for a desired purpose without any prejudice to the sustainability of a government's financial position." Most often, views on a country's fiscal space are guided by some notion of debt sustainability, defined as the difference between the current level of public debt and some specified debt sustainability thresholds, likely shocks, and economic institutions that differ from country to country (IMF, 2016). Fiscal space is created through improved revenue generation and reduced public debt.

In an effort to improve the fiscal space, countries reorient their fiscal policies such as policies on tax expenditure. Tax expenditure is revenue a government foregoes through the provisions of tax laws that allow for deductions, exclusions, or exemptions from the taxpayers' taxable expenditure, income, or investment. Tax expenditure also includes deferral of tax liability and/or preferential tax rates that benefit specific activities or groups of taxpayers. Tax expenditure, therefore, is an instrument the government uses to favour certain taxpayers (sectors, firms or individuals) to provide incentives to given economic activities. Tax expenditure provisions in Kenya are made mainly to reduce the cost of capital and influence investment expenditure in the country. Generally, KRA (2011) indicates that tax expenditure in Kenya can be grouped under the investment related incentives and the trade related (export promotion) incentives. Investment related incentives mainly consist of Investment Deduction Allowance (IDA), Industrial Building Allowances (IBA), Mining Deductions Allowance, Capital Deductions on Agricultural Land, Import Duty Set Off and Unit Trusts Investment Vehicles. On the other hand, trade related incentives mainly consist of Export Processing Zones (EPZ), Manufacture-Under-Bond (MUB), and Tax Remissions Export Office (TREO).

The provision of the tax expenditures entails substantial costs, mainly focuses on exports and foreign direct investments, and increases the complexity of the tax system though the benefits to the economy that can be attributed solely to tax incentives are less clear and not easily quantifiable (KRA, 2011). Since tax expenditure program alters the horizontal and vertical equity of the tax system by allowing exemptions, deductions, or credits to selected groups or specific activities, the tax system might be viewed as unfair by some taxpayers. This may affect negatively on the tax morale of those who do not benefit from the tax exemptions. Additionally, through tax expenditure the government consciously concurs in the reduction of its own revenue, which subsequently eats into the government's fiscal space. Cognizant of this fact, the KRA in its Vision 2018 intended to reduce tax expenditure in Kenya from 3.5 percent of GDP to less than 1.4 percent of GDP (Mauritian level). This was expected to release additional revenues of at least KSh 75.2 billion (KRA, 2015). The VAT Act of 2013 reduced significantly the incentives given to investors by repealing VAT remissions that existed on some activities, and by reducing the number of items that fall under preferential rates. Since issues of fiscal transparency and political accountability are particularly pressing in developing countries such as Kenya, tax expenditures may be particularly problematic. Moreover, in view of the fact that tax expenditures further complicate the tax systems, there is a concern that tax expenditures might encourage tax avoidance and tax evasion, which may in turn influence tax morale in the country. It is therefore important to understand how discretionary fiscal instruments such as fiscal exchange and tax expenditure influences tax morale in Kenya.

1.2 Statement of the Problem

In its Vision 2018, the KRA was focusing on achieving a weighted taxpayer compliance of 65 percent by 2018 through improved voluntary tax compliance by enhancing transparency, accountability and integrity in its operations, and enhanced communication with the public (KRA, 2015). With the realization that tax compliance is not fully motivated by neoclassical paradigm where taxpayer is rational, selfish and purely economic, but by aspect of social norms, morality, altruism and justice (Mangoting and Sukoharsono, 2015) there is need for more focus on the variables that influence voluntary tax compliance in the country. Various researchers have found out that tax compliance could not be completely explained by tax law enforcement level, auditing and punishment, hence concluding that tax morale is an important ingredient of tax compliance in an economy (Torgler and Schaffner, 2007; Murphy, 2008; Erard and Feinstein, 1994; Gordon, 1989). Whereas little work has been done to demonstrate the relationship between revenue collection and tax morale, this study sought to understand the critical factors that influence tax morale in the country. One of the factors of interest to the government is an improved fiscal space to enable it enhance fiscal exchange, which is influenced on the revenue side by the tax expenditure provisions. The KRA intended to reduce tax expenditure in Kenya from 3.5 percent of GDP to less than 1.4 percent of GDP (Mauritian level) to release additional revenues of at least KSh 75.2 billion (KRA, 2015) by 2018. However, this has not been realized. Eliminating preferential treatments in the tax system that largely benefit certain taxpayers, mainly the rich, could contribute to the perception that the tax system is fair, which is associated with improved tax morale and higher revenue yield. The link between fiscal exchange and tax expenditure on one side and tax morale on the other is not immediately apparent. However, they are vital for enhancing tax compliance and revenue collection in the country. This necessitated an analysis of the influence of fiscal exchange and tax expenditure on the tax morale in Kenya to help understand how the fiscal factors, among other correlates, shape the tax morale in the country.

1.3 Objectives

The main objective of this study was to establish how discretionary fiscal factors influence tax morale in Kenya. Specifically, the study sought to:

i. Examine the effects of fiscal exchange, tax expenditure and selected fiscal variables on tax morale in Kenya.

ii. Generate policy recommendations to boost tax morale and enhance voluntary tax compliance in Kenya.

2.0 Empirical Review

2.1 Theoretical review

There are four main theories that have been applied in studies on tax morale. First, is the utilitarian theory of tax evasion that was put forward by Allingham and Sandmo (1972) who adapted Becker's model of economics of crime to taxation. The theory assumes rational behavior on the part of taxpayers, that is, they are able to conduct cost-benefit analysis to see if the expected utility of non-compliance exceeds the utility of complying (Birskyte, 2014). Allingham and Sandmo (1972) stress that a taxpayer will evade taxes if the expected utility from evasion exceeds the expected utility from full compliance. Taxpayer is modelled as risk-averse, expected net income maximizing agent, who has the possibility to under-report his income, but by doing so he/she increases the chances to get audited and fined. In the Allingham and Sandmo (1972) model, the key policy parameters affecting tax evasion are tax rate, probability of detection, and penalty imposed when the evasion is detected.

Second, is the social contract theory that was pioneered by Thomas Hobbes and Jean Jacques Rousseau, with assumption that humans are rational beings who have freedom to control their own lives without the need to be bound by law provisions (Mangoting and Sukoharsono, 2015). Rousseau also emphasizes in social contract theory that system must provide reciprocal contracts for two parties, namely the people and government. That is, the people will surrender their resources to state with a condition that the state also returns with the same amount (Rousseau, 2010). In taxation context, taxpayer look at the obligation to pay tax as part of a social contract where they offer to provide economic resources to the government which the government accepts and uses to improve their welfare and create wealth for society (Mangoting and Sukoharsono, 2015). Contract idea of Rousseau and Hobbes provide three principles for government to fulfil taxpayer compliance: freedom, common interests, and reciprocity principle.

Third, is the fiscal exchange theory, which stipulates that government expenditures and its composition may motivate compliance and that governments can increase compliance by providing goods that citizens prefer in a more efficient and accessible manner (Cowell and Gordon ,1988). In taxation perspective, just like in social contract, individuals pay taxes to the government recognizing the fact that their payments are necessary to help finance the public goods and services. In turn, the individuals expect the government to use their taxes to finance and provide the desired public goods and services. Failure by the government to meet their expectations would negatively influence their tax morale. Ali *et al*. (2013) affirms the argument that a taxpayer's behavior is influenced by his/her satisfaction or lack of satisfaction with the type and quality of the public goods and services provided by the government.

Fourth, is the comparative theory that is based on equity principles. The theory argues that inequities in the exchange relationship between government and taxpayers influence tax morale (McKerchar and Evans, 2009). D'arcy and Herath (2011) argued that taxpayers will always consider their relationship with the government as well as how the government treats them and their fellow citizens. If the state treats certain groups preferentially, this may influence the citizens' relationship with the state and the group receiving favors (Ali *et al*., 2013). This will consequently influence the citizens' tax morale.

2.2 Empirical literature

Tax compliance is influenced by a number of factors that can be categorized into economic and non-economic factors. In tax compliance decisions, economic variables such as source/level of income, tax rate, tax audits and their probabilities, sanctions and fines play an important role. These are the main variables in the classical utilitarian theory of tax evasion. Spicer and Lundstedt (1976) pointed out that the self-employed are more likely to evade taxes than the employed taxpayers. Thus tax compliance has a relationship with the level of informality in the country. Additionally, empirical research show that tax evasion increases with increasing marginal tax rates (Pommerehne and Weck-Hannemann, 1996; Clotfelter, 1983; Slemrod, 1985). However, Porcano (1988) and Kirchler *et al.* (2008) showed that tax rate have no effect on evasion and under-reporting.

Allingham and Sandmo (1972) pointed out that the assumption grounded in the classic utilitarian theory of Jeremy Bentham and Cesare Beccaria is that taxpayers are rational actors who seek to maximise their expected utility. As such, they evaluate the opportunities and risks confronting them and disobey the law when the expected penalty and probability of being caught is small relative to the profits to be gained. The outcome was the adoption of a deterrence approach, in which governments sought to ensure that the costs of non-compliance outweigh the benefits by increasing the penalties for those caught and/or create the perceived likelihood of detection (Richardson and Sawyer, 2001). However, various studies have shown that the rational economic actor model does not explain the high levels of voluntary compliance witnessed in many countries and why populations remain compliant even when the benefits of non-compliance far outweigh the risks (Erard and Feinstein, 1994; Gordon, 1989; Murphy, 2008; Skinner and Slemrod, 1985). To explain why citizens continue to pay their taxes when there are very low penalties and levels of detection, a growing literature has turned its attention to studying tax morale and the various factors that influence it. Mangoting and Sukoharsono (2015) asserted that governments need to understand that tax evasion by taxpayer cannot be completely solved by sanctions and fines as a deterrent. This shows that tax morale is considered an important determinant of tax behavior observed across the world. Therefore, in the remaining part of this section, we present some of the studies that have looked at the factors that influence tax morale in some of the economies.

Torgler and Werner (2005) carried out a survey in Germany looking at the relationship between tax morale and fiscal autonomy and found out that high tax morale is enhanced by high fiscal autonomy. They also noted that direct democracy positively influences tax morale. Barone and Mocetti (2011) investigated the link between public spending efficiency and tax morale, and found out that attitude towards paying taxes improves with more efficient public spending. They also showed that the negative effect of inefficiency is even more significant when the level of public spending is lower and/or fiscal autonomy is higher. Mangoting and Sukoharsono (2015) used a qualitative approach with interpretative research methods to study tax compliance. Their results showed that tax morale manifest the reciprocity principle which indicates that benefit from tax payment in Indonesia is still below expectation in view of poor public services, inadequate public facilities and infrastructure, and corruption of bureaucrats.

Torgler and Schaffner (2007) specified tax morale as dependent variable in a model with the following question: "Trading or exchanging goods or services with a friend or neighbor and not reporting it on your tax form…" (in a scale of 1 to 6, where 6 means not at all acceptable and 1 means perfectly acceptable). To examine the factors that shape the level of tax morale, Torgler and Schaffner (2007) analyzed the following determinants separately based on the same control variables: tax authority; tax system; perception and experiences with deterrence factors and tax evasion; awareness of tax issues and trust in government, social capital and obedience. They found out that positive attitudes towards tax authority and tax system significantly increase tax morale. They showed that awareness of tax issues correlates with a lower tax morale. However, the coefficient was not significant in all the cases. Trust in public officials and other people on the contrary had a highly significant positive effect on tax morale.

Torgler and Murphy (2004) investigated the level of tax morale among Australian citizens using World Value Survey (WVS) data for the period 1981 – 1995. Their study showed that trust in government institutions such as Parliament or the legal system and moral beliefs are key determinants of the tax morale in Australia. Doerrenberg and Peichl (2010) also pointed out that trust in government and national pride are key determinants of tax morale in a country. The argument is that when citizens trust their government and believe that tax revenue is spent properly, they will be more willing to pay taxes. Frey and Torgler (2007) also explored the relationship between vertical trust (trust between taxpayers and the state) and tax morale. They argued that trust in the state may influence the willingness to pay taxes but it is not necessarily related to conditional cooperation among the citizens.

Alm and Torgler (2006) used the WVS data to analyze the relationship between tax morale and size of shadow economy in the USA and other 15 European countries. The study found a strong negative correlation between the size of the shadow economy and the degree of tax morale in the respective countries. The highest degree of tax morale was found in the USA, followed by Austria and Switzerland. In a recent study, Alm and McClellan (2012) used data from Business Environment and Enterprise Performance Surveys (BEEPS) and the World Enterprise Survey (WES) on 8,500 firms in 34 countries, during a period of 8 years to study tax morale and tax compliance behavior. The results showed that tax morale considerations are the same for individuals and firms. The study found out that firms having higher tax morale evade less than those with lower tax morale. Moreover, foreign firms and state owned firms were found to evade less than domestic firms, hence the authors recommended an increase in audit probabilities for domestic firms.

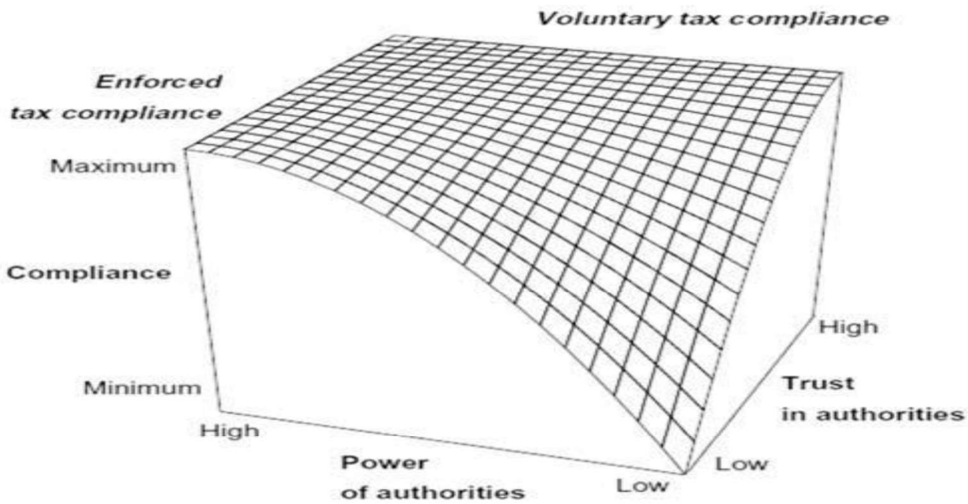
Ali *et al*. (2013) analyzed the 2011/2012 Afro barometer survey data on Kenya, Tanzania, Uganda and South Africa using a logit model. The 2011/2012 Afro barometer survey indicated that about 54 percent of the Kenyan population had a positive tax compliance attitude. The 2014/2015 Afro barometer survey showed that this has improved to 75 percent. Ali *et al*. (2013) showed that economic deterrence, fiscal exchange/individual satisfaction, societal behavior; trust in institution, political participation and democracy are the main factors that influence the taxpayers' compliance attitude in Kenya. As noted by Ali *et al*. (2013), strict enforcement of tax laws that leads to increase in the perceived difficulty of evading taxes is likely to increase tax compliant attitude by 7 percent in Kenya. The analysis showed that individuals who are more satisfied with government provision of infrastructure in Kenya are more likely to have a tax compliant attitude by about 11 percent. On the other hand, how often individuals make payments to non-state actors such as criminal gangs for protection reduces the likelihood of having a tax compliant attitude in Kenya by 6 percent. This implies that the government can increase tax compliance attitude in the country through efficient fiscal exchange.

The various studies reviewed in this section show that tax morale has received much attention from various researchers and policymakers. This has been due to the high level of tax compliance witnessed across the world that cannot be fully explained by the economic deterrence measures employed by the various tax authorities. Indeed, tax morale is argued to be an important component of tax compliance in various countries across the world thus the importance of studying its determinants. The literature shows that fiscal exchange is an important determinant of tax morale in a country (Mangoting and Sukoharsono, 2015; Ali *et al*., 2013; Barone and Mocetti, 2011; Torgler and Werner, 2005). However, none of the studies reviewed looks at discretionary fiscal instruments such as tax expenditure and their influence on tax morale in an economy. This study therefore sought to fill this research gap.

3.0 Methodology

The economic theory of tax evasion, put forward by Allingham and Sandmo (1972), has been criticized due to its assumptions such as taxpayers being fully rational utility maximizers whose behavior is interpreted as a reaction to different financial benefits or losses, and the assumption of constant audit probability (Bătrâncea, *et al*., 2012). These weaknesses have paved way for the development of behavioral models of tax compliance taking care of the sociological and psychological determinants of tax compliance. The 'slippery slope' framework proposed by Kirchler *et al.,* (2008) is one of the behavioral models of tax compliance with fiscal framework that has been developed to explain voluntary tax compliance. The framework presents power of authorities and trust in authorities as the two main dimensions shaping enforced and voluntary tax compliance in a country. Figure 3.1 presents the 'slippery slope' framework.

Figure 3.1: Slippery Slope Framework



Source: Kirchler et al. (2008)

In the framework, power of authorities is defined as taxpayers perception of the potential of tax officers to detect and punish illegal tax evasion while trust in authorities is defined as the general opinion of individuals and social groups that the tax authorities are benevolent and work beneficially for the common good (Kirchler *et al*., 2008). This study is based on the trust in authorities' side of argument, geared towards achieving voluntary tax compliance through increase in levels of tax morale. Moving upwards the right edge of the model along the trust dimension and in the conditions of low power, compliance level rises due to the increase in trust which fosters cooperation. Thus, boosting trust in authorities generates voluntary compliance. While this study appreciates the need to incorporate both economic and behavioral factors in analyzing voluntary tax compliance in general and tax morale in particular, it mainly employs the fiscal exchange theory and the social contract theory in its analytical framework.

In the literature review, it was realized that most of the studies on tax morale are carried out through experimental design or empirical survey. However, contemporary analysis seems to rely more on surveys, using survey data sources such as World Value Survey (WVS), Business Environment and Enterprise Performance Surveys (BEEPS), World Enterprise Survey (WES) or Afrobarometer survey. In line with the contemporary analyses, this study makes use of survey-based evidence in determining the influence of fiscal exchange and tax expenditure on tax morale in Kenya. This approach is more informative as it involves active engagement of the taxpayers and makes use of both qualitative and quantitative data. The following section outlines the empirical model employed in the analysis.

3.1 Model Specification

To analyze the influence of fiscal exchange and tax expenditure on tax morale in Kenya, the studies borrows from the model used by Ali *et al.* (2013) with some amendments. Consequently, the following probit model is employed in estimation:

$$\boldsymbol{Pr(TaxMorale_i \leq j) = \beta_0 + \beta_1\, Fexchange_i + \beta_2\, TE_i + \beta_3\, Tax_{inc,i} + \beta_4\, PB_{inc,i} + \beta_5\, Enforc_i + \beta_6\, Corrp_i + \beta_7\, Account_i + \beta_8\, Democ_i + \beta_9\, Pride_i + \beta_{10}\, Trust_i + \beta_{11}\, Ind_i + \varepsilon_i \ldots\ldots\ldots\ldots (3.1)}$$

Where $TaxMorale_i$ is the tax morale of individual *I;* j is binary (takes the value 1 or 0, otherwise); i represents individual i; $\beta_1, \ldots, \beta_{11}$ are the coefficients to be estimated; $Fexchange$ is Fiscal exchange; TE is Tax Expenditure; Tax_{inc} is increase in taxation; PB_{inc} is increase in public borrowing; $Enforc$ is enforcement of tax laws; $Corrp$ is corruption; $Account$ is accountability for taxes collected; $Democ$ is democracy (level of satisfaction with democracy in Kenya); $Pride$ is national pride; $Trust$ isTrust in Tax Authority (KRA); Ind are the individual characteristics; and ε_i is the error term.

3.2 Measurement of Variables

$\boldsymbol{TaxMorale_i}$– This is the intrinsic motivation to voluntarily comply with the tax laws. An individual's attitude towards paying tax can be used as a proxy for his/her tax morale. In the survey questionnaire, question 19 (b) was used to proxy an individual's tax morale (after carrying out factor analysis presented in the next chapter). The question sought the opinion of the respondents whether not paying tax is wrong and should be punishable. Based on the responses, individuals were considered as having a tax compliant attitude if their response was "Strongly Agree = 1 or Agree = 2" and non-compliant attitude if their response was "Disagree = 4 or Strongly Disagree = 5".

Fiscal Exchange (Fexchange) **–** This variable captures respondent's satisfaction with government's provision of different public goods and services that citizens

prefer and that may motivate compliance attitude. This was captured by question 7 (a to j) and question 19 (a) in the questionnaire. Question 7 asked the respondents to rate the national governments provision of public goods and services. The responses are "Excellent =1, Fair = 2, or Poor = 3". Question 19 (a), which was used in the regression analysis, sought the opinion of the respondent whether they agreed with the statement "people should pay taxes in order to receive services from the government?" Based on the responses, an individual was deemed to support fiscal exchange argument if the response was "strongly agree = 1 or agree = 2", but in disagreement if the response was "Disagree = 4 or Strongly Disagree = 5".

Tax Expenditure (TE) – this was included in the model to capture the respondents' views on fairness in giving some taxpayers exemptions and how this influences their willingness to pay taxes. In the questionnaire, the responses for question 11 (a) and (b) captures the opinion of the respondents on tax expenditure. Question 11 (a), employed in the analysis, asks the respondents whether they agree with the statement that it is okay to exempt some people/companies from paying certain taxes if they are investing in certain sectors considered critical to the Kenyan economy. The responses for those in agreement were "strongly agree = 1 or agree = 2" and that for those not in agreement were "Disagree = 4 or Strongly Disagree = 5".

Increase in Taxation (Tax_{inc}) – In the survey questionnaire, the respondents were asked whether they would oppose or support payment of more taxes in order for the government to increase expenditure (captured by question 9 in the questionnaire). Based on the choices for the question, those who opposed payment of more taxes were captured by the responses "strongly oppose = 1 or oppose = 2", whereas those who supported were captured by the responses, "Somewhat support = 4 and strongly support = 5".

Increase in public borrowing (PB_{inc}) – the respondents were also asked if they would prefer the government finding resources for increased government expenditure from other sources specifically through increased borrowing (question 10 (a) in the questionnaire). Similarly, based on the choices for the question, those who opposed increased government borrowing were captured by the responses "strongly oppose = 1 or oppose = 2", whereas those who supported were captured by the responses, "Somewhat support = 4 and strongly support = 5".

Enforcement (Enforc) – This was captured by the responses in question 12 (b) and question 13. In question 12 (b), which was employed in the analysis, enforcement was deemed to be weak if the responses on tax evasion question was "very easy =1 or easy = 2" but very strict/high if the responses were "difficult = 3 or very difficult = 4". Based on the responses in question 13, an individual was deemed to agree that there is no need for enforcement for people to pay their taxes if the response is "strongly agree = 1 or agree = 2", whereas an individual was deemed to be of the view that enforcement was needed for people to pay taxes if the responses were "disagree = 4 or strongly disagree = 5".

Corruption (Corrp and CorrpKRA) – this was captured by question 14 and 15 (a). According to the question 14, one was deemed to be of the view that corruption has increased if the response was "Increased a lot = 1 or Increased somewhat = 2", whereas one was deemed to be of the view that corruption was on a decline if the response was "decreased somewhat = 4 or decreased a lot = 5". For question 15 (a), one was of the opinion that KRA officials are involved in corruption if the response was "YES = 1", but of contrary opinion if the response was "NO = 2".

Accountability (Account) - Accountability was captured by the responses to question 16, that is, "taxes paid to the government are well account for". Based on the responses, the government was deemed to be accountable if the response was "Strongly agree = 1 or Agree = 2", whereas the government was deemed not to be accountable on tax collected if the response was "disagree = 4 or strongly disagree = 5".

Democracy (Democ) – this was captured by question 18 in the questionnaire. Based on the responses, one was deemed not to be satisfied with democracy in Kenya if the response was "Not at all satisfied = 1 or Not very satisfied = 2", whereas one was deemed to be satisfied if the response was "fairly satisfied = 3 or very satisfied = 4".

***National Pride (Pride)* –** this was captured by question 1 in the questionnaire with the responses "very proud = 1", "Somewhat proud = 2" or "Not at all proud = 3". One was deemed to have national pride if the response was "very proud = 1", "Somewhat proud = 2", whereas those that gave response of "Not at all proud = 3" were deemed to have no national (civic) pride.

***Trust in KRA (Trust)* –** *was* captured by responses for question 5 (i) (a) asking the respondents to indicate how much they trust KRA. Based on the responses, those who opt for "Not at all = 1", were deemed not to have trust in KRA whereas those whose responses were "Somewhat = 2 or A lot =3" were deemed to have trust in KRA.

Individual characteristics (Ind) - vector for individual level characteristics included in the model were taxpayer category, gender, marital status, age, level of education and employment status (captured by questions 22 to 27 (a)).

3.3 Data Type and Sample Design

The study majorly relied on primary data collected through a national survey. The targeted population for the survey was all potential taxpayers, that is, Kenyan population aged above 18 years who are more likely to be engaged in an economic activity that forms part of the country's tax base. In 2016, the World Bank estimated that approximately 24,071,278 Kenyans were aged 18 years and above. This formed the total population for the study. Filter questions were included in the survey questionnaire to ensure that those interviewed under the small/individual taxpayers' category were above 18 years of age and were engaged in income generating (economic) activities. To arrive at the sample for the survey, stratified random sampling was employed. First, the sample size was derived using Yamane 1973 formula with 97 percent confidence level. The calculation is presented as below:

$$n = \frac{N}{1+N(e)^2} \quad \text{..(3.2)}$$

Where n= the sample size

N= is the population

e= is the allowable error of 0.03.

Therefore $n = \frac{24,071,278}{1+24,071,278(0.03)^2} = 1,111$

Using an adult population of approximately 24,071,278 Kenyans with an error limit of three percent, a sample size of 1,111 was generated. For sampling convenience, this was rounded off to 1,100 respondents, which formed the sample size for the survey. Secondly, the KRA administrative regions were categorized into five regions, that is, Southern, Nairobi, Western & South Rift, Central & Northern, and North Rift regions. Divided equally among the five regions, the sample size translated to 220 respondents per region. However, in view of the high concentration of taxpayers in Nairobi region, a higher sample of 300 respondents was recommended for the region.

The remaining 800 respondents were then shared among the other 4 regions which translated to 200 respondents per region.

Further, the respondents in every region were stratified into Large, Medium and Small/Individual taxpayer categories to ensure that the sample is representative of the various taxpayers. The available data on the taxpayers in the regions from KRA's Domestic Tax Department (DTD) was used to determine their proportions per region, which was then used to assign proportions of the taxpayer types in each region's sample. The large and medium taxpayer respondents were identified in collaboration with the regional offices during the survey.

4.0 Results and Discussions

4.1 Response Rate

The survey involved field visits of 26 KRA stations in which the survey team carried out structured face-to-face interviews with the taxpayers across the regions. This study used individual taxpayers as the unit of analysis and focused on persons aged above 18 years, who are engaged in economic activities. The survey was carried out in the month of June 2017. A sample of 1,100 was used in the survey, out of which 955 responded. This represents an impressive overall response rate of 86.82 percent. The disaggregated response rates is presented in Table 4.2.

Table 4.1: Response Rate per Region

KRA Region	Targeted Questionnaires	Completed Questionnaires	Response Rate (%)
Nairobi	300	195	65.0
Western/South Rift	200	183	91.5
Rift Valley/North Rift	200	198	99.0
Central/Northern	200	183	91.5
Southern	200	196	98.0
TOTAL	**1, 100**	**955**	**86.8**

Source: Author's Analysis of 2017 Survey data

Table 4.1 shows that the survey generally had a high response rate, with Rift Valley/North Rift, and Southern regions recording the highest response rates. Among all the regions, Nairobi recorded the lowest response rate of 65.0 percent probably due to the challenges in securing appointments with the large and medium taxpayers in view of the short notice on the intended survey. The response rate of the respective categories of taxpayers is presented in Table 4.2.

Table 4.2: Response Rate per Taxpayer Category

Taxpayer Category	Targeted Questionnaires	Completed Questionnaires	Response Rate (%)
Large	147	77	52.4
Medium	240	215	89.6
Small/Individual	713	663	93.0
TOTAL	**1, 100**	**955**	**86.8**

Source: Author's Analysis of 2017 Survey data

Table 4.2 shows that response rate was high amongst the small/individual taxpayers and medium taxpayers but relatively low among the large taxpayers. This was mainly due to the challenges in securing interviews with the large taxpayers across the regions. In some instances where the respondents requested the questionnaires to be left behind, they were not filled and forwarded as promised. Despite the challenges, all the taxpayer categories were well represented in the respondents' population.

4.2 Descriptive Statistics

The demographic statistics show that 65.54 percent of the 955 respondents were male while 34.46 percent were female. The age distribution show that 72.36 percent of the respondents were aged less than 40 years, while only 27.64 percent were aged forty years and above. About 19.58 percent of the respondents had either a primary or secondary education, 41.05 percent had college level education and the remaining 39.37 percent had at least undergraduate university education. The employment status statistics show that about 50 percent of the respondents were employed in the private sector, 26 percent were self-employed while the remaining 24 percent worked either for the county government or for the national government. Majority of the respondents, 71.10 percent, were found to be married whereas only 28.90 percent were either single or in other categories.

The first, second and third column of Table A1 in the appendix reports the summary statistics for individuals without tax morale, with tax morale and the entire population of respondents, respectively. The last column outlines t-test for mean differences between those without tax morale and those with tax morale. The descriptive statistics show that a higher proportion (28.6%) of those were of the view that people do not have to pay taxes to receive government services had no tax morale. On the other hand, a higher proportion (81.2%) of those who were of the view that people should pay taxes to receive government services had tax morale. This implies that adequate fiscal exchange between the government and the citizens is important in boosting tax morale in the country. The descriptive statistics also show that a higher proportion of those against provision of tax exemptions (46.37%) and those who were neutral about such provisions (14.52%) had no tax morale. On the other hand, a higher proportion of those who agreed to tax exemption provisions (51.49%) had tax morale than the 39.11% who had no tax morale. These statistics show that tax expenditure in a way influences individual's tax morale. Similarly, the other variables with significant difference in means are interpreted.

4.3 Pre-Estimation Tests

The dependent variable, tax morale, is captured in the questionnaire by two questions, that is question 19(a) and 19(b). Factor analysis was applied to make a decision on which question to be used to represent the dependent variable in the analysis.

Table 4.3: Factor Analysis and Reliability Test Results

Initial Eigen Values				Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.19	59.72	59.72	1.19	59.72	59.72
2	0.86	40.28	100.00			
KMO and Bartlett's Test: Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.50 Bartlett's Test of Sphericity: Approx. Chi-Square = 36.71***				**Reliability Test:** Cronbach's Alpha = 0.51 Cronbach's Alpha Based on Standardized Items = 0.57		
Note: Extraction Method is Principal Component Analysis. Only one component was extracted thus the solution cannot be rotated (no rotated component matrix). For Bartlett's Test of Sphericity, ***, ** and * show significance at 1%, 5% and 10% respectively.						

Source: Author's Analysis of 2017 Survey Data

The factor analysis conducted on the two questions used to capture tax morale responses yielded only one factor, accounting for 59.72 percent of variance with eigenvalues of 1.19. The two items have factor loading of value above 0.50 whereas the values for commonalities was found to be the same for the two items and equal to 0.60 implying that any of the questions suitably captures tax morale variable. The suitability of the responses on tax morale was also guaranteed with the values of Bartllet's Test of Sphericity that is significant at 1 percent and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy score of 0.50 (which is acceptable). These results meet the criteria of factor analysis and confirm the construct validity on the questions on tax morale. The reliability test on the variables included in the model gave Cronbach's Alpha of 0.51, which is acceptable. The independent variables were tested for correlation amongst themselves. The results showed that there is no high correlation among the regressors included in the model. The highly correlated variables in the model are accountability and national pride with a weak negative correlation of -0.2618.

To select the model to be used in the analysis, Wald test for combining alternatives was carried out on the dependent variable using the *mlogtest*. The test is applied to test whether to run binary or multinomial model. The null hypothesis for this test is that all coefficients except intercepts associated with a given pair of alternatives are zero, that is, the alternatives can be combined. The results for the test are presented in Table 4.4.

Table 4.4: Wald tests for combining alternatives

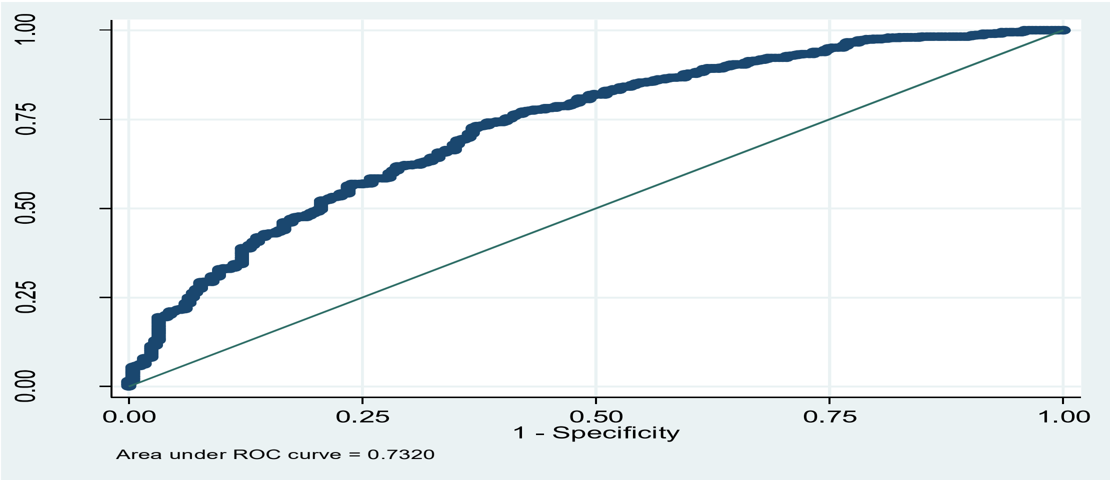
Alternatives	Test Statistics (Chi2)
1 & 2	39.936
1 & 3	73.212***
2 & 3	92.401***
Source: Author's computation. Note: 1 = Without Tax Morale; 2 = Neutral; 3 = With Tax Morale; ***, ** and * show significance at 1%, 5% and 10% respectively.	

The results show that Chi2 test statistics are not all significant, hence it means at least two of the responses can be combined thus the binary (*probit*) model is appropriate for the analysis. If all were significant, then a multinomial model such as *mlogit* could have been appropriate in the analysis of the model. Therefore, the probit model was applied in the analysis for this study.

4.4 Robustness Tests

Before presentation of the empirical results, this section presents the post estimation tests that were carried out to confirm the reliability and efficiency of the probit model in analyzing the relationship between tax morale and the independent variables. The Pearson and Hosmer–Lemeshow goodness-of-fit test results showed that the model fits the data reasonably well. To examine the predictive power of the model, the Receiver Operating Characteristic (ROC) Curve in Figure 4.1 was employed.

Figure 4.1: Receiver Operating Characteristic (ROC) Curve



Source: Author's Analysis of 2017 Survey data

The greater the predictive power, the more bowed the curve, and hence the area beneath the curve is often used as a measure of the predictive power. A model with no predictive power has area 0.5; a perfect model has area 1. Figure 4.1 shows that the area under the curve is 0.73 which confirm that the model has high predictive power. Additionally, *linktest* was performed to test whether the model was specified correctly. The results for the specification link test for single-equation models are shown in Table 4.5.

Table 4.5: Specification test for single-equation models

Tmoralebinary	Coefficient	Z-Statistics	P>z
_hat	1.1316*** (0.1768)	6.40	0.000
_hatsq	-0.1230 (0.1401)	-0.88	0.380
_cons	-0.0019 (0.0725)	-0.03	0.979
Source: Author's computation. Note: The figures in parentheses are standard errors; ***, ** and * show significance difference at 1%, 5% and 10% respectively.			

The results in the table show that *_hat* is significant and *_hatsq* and the *constant* are insignificant which is the expected for a well specified model. In conclusion, the post-estimation tests show that the probit model fit reasonably well, has high predictive power and is well specified.

4.5 Empirical Results

The empirical findings from the study are presented in Table 4.6.

Table 4.6: Probit Regression Results for Tax Morale in Kenya

Variable	Probit Regression Results	Marginal Effects
Individual Age: 30-39 years	0.3240*** (0.1150)	0.0940*** (0.0336)
40-49 years	0.2376 (0.1458)	0.0707* (0.0426)
50+ years	0.2852 (0.1930)	0.0837 (0.0541)
Gender (1=Female;0=otherwise)	-0.3684*** (0.0998)	-0.1091*** (0.0305)
Marital status (Married=1; 0=otherwise)	0.0901 (0.1108)	0.0258 (0.0322)
Education Level: College	0.0823 (0.1254)	0.0250 (0.0384)
University	0.3581*** (0.1357)	0.1010*** (0.0391)
Employment Status: Private Sector Employment	0.0023 (0.1232)	0.0007 (0.0346)
Self-Employment	-0.0328 (0.1352)	-0.0093 (0.0383)
Taxpayer Category: Medium Taxpayer	-0.0949 (0.2048)	-0.0261 (0.0555)
Individual Taxpayer	-0.10461 (0.1908)	-0.0288 (0.0513)
Fiscal Exchange (1=Agree; 0=otherwise)	0.6309*** (0.1029)	0.1997*** (0.0346)
Tax Expenditure: Okay with tax exemptions (1= Disagree; 0=otherwise)	-0.17104* (0.0968)	-0.0484* (0.0275)
Increase Taxes (1=Support; 0=otherwise)	0.1837 (0.1384)	0.0501 (0.0363)
Increase Borrowing (1=support; 0=otherwise)	-0.0811 (0.1127)	-0.0231 (0.0324)

Enforcement (1= Difficult to evade tax; 0=otherwise)	0.0260 (0.0979)	0.0073 (0.0277)
Corruption in Kenya (1= Decreased; 0=otherwise)	-0.1165 (0.1535)	-0.0337 (0.0455)
Corruption by KRA Officials (1=Corrupt; 0=otherwise)	-0.0773 (0.1225)	-0.0216 (0.0337)
Accountability for Taxes paid (1=Not Accountable; 0=otherwise)	-0.2813** (0.1431)	-0.0755** (0.0361)
Democracy in Kenya (1=Satisfied; 0=otherwise)	0.3351*** (0.1213)	0.1009*** (0.0385)
National Pride (1= proud; 0=otherwise)	0.1170 (0.1833)	0.0340 (0.0548)
Trust in KRA ((1=A lot/Somewhat; 0=otherwise)	0.2277* (0.1381)	0.0679 (0.0432)
Constant	-0.1634 (0.3639)	
Number of observations	949	
Wald chi2(22)	126.97***	
Pseudo R-squared	0.1247	

*Note: ***, ** and * indicate significance at 1%, 5% and 10% respectively. Robust standard errors are in parentheses. Marginal effect (dy/dx) for factor levels is the discrete change from the base level.*

The Pseudo R-squared shows that the variables included in the model explain about 12.47 percent of the variations in tax morale. This is a significant variation given that the cross-sectional models have significant variations across units of analysis unlike time series models. The wald chi-square statistics is significant at 1% level indicating that the variables included in the model jointly explain the variations in tax morale. The table presents the probit regression results in the second column and the marginal effects of the probit model in the third column. The probit regression results show the relationship between the regressors and tax morale whereas the marginal effect figures present how much the probability of the outcome variable changes when you change the value of a regressor, holding all other regressors constant at some values.

The probit regressions results show that the factors that significantly influence tax morale in Kenya are individual's age, gender, level of education, trust in KRA, fiscal exchange between the government and the taxpayers, tax expenditure, accountability for taxes paid and satisfaction with democracy in Kenya. The results show that individuals within the age of 30-39 years and 40-49 years were respectively 9.4% and 7.07% more likely to have tax morale than the individuals in the age bracket of 18-29 years (the base group). Though not statistically significant, the results show that the other age group of over 50 years is positively related to tax morale in the country as compared to the base group. These results are encouraging since the age groups of 30-39 years and 40-49 years form a significant number of the working population. This means that increased opportunities for these age groups to engage in various economic activities would most likely translate into improved revenue remittance to the government.

Gender of the respondents was also found to have a significant but negative coefficient in the tax morale model. The results show that at 1% level of significance, women are less likely to have tax morale than men with 10.91 percentage points. This is an interesting result that could be linked to the economic activities that the female respondents who were interviewed are engaged in. Most of the female respondents were found to fall in the small taxpayers' category hence the low inconsistent income associated with the economic activities they are engaged in can be used to explain their attitude towards paying taxes. The level of education of an individual was found to have a significant and positive coefficient. The results show that at 1% level of significance, holding other factors constant, attaining University education increased the probability of an individual having tax morale by 10.1 percentage points.

Fiscal exchange was found to have a significant and positive coefficient in the model. The results show that at 1% significance level, improved fiscal exchange between the government and the taxpayers has 19.97 percentage points probability of increasing the tax morale in Kenya. This implies that the government can substantially improve on the tax morale through adequate provision of public goods and services. The findings on tax expenditure show that provision of tax exemptions to some taxpayers have a negative influence on the tax morale in Kenya. At 10% level of significance, provision of tax exemptions to some taxpayers has a probability of 4.84% of decreasing tax morale in the country. This implies that tax expenditure makes the tax system to be deemed to be unfair by some taxpayers. This negatively influences tax morale of those who do not benefit from the tax exemptions and the taxpayer population in general. Therefore, the pursuit by KRA to reduce tax expenditure in Kenya from 3.5% of GDP to less than 1.4% of GDP (Mauritian level) will not only release additional revenues of at least KSh 75.2 billion (KRA, 2015) but also improve the tax morale in the country.

Trust in KRA was also found to have a significant and positive coefficient, though weak. This points to the fact that the initiatives undertaken in KRA's corporate plan to build trust through facilitation may have begun to bear fruits if the trust the respondents have in KRA could be attributed to them. The other factors found to significantly influence the tax morale in the country were accountability on taxes paid to the government and satisfaction with democracy in the country. The results show that lack of accountability for taxes paid has 7.55 percentage points probability of decreasing the tax morale in the country. On the other hand, satisfaction with the level of democracy in Kenya has a probability of 10.09 percent of increasing tax morale in the country. Though not statistically significant, marital status (an individual being married), national pride, preference for increasing taxes instead of increasing borrowing and strict enforcement of tax laws were found to be positively related with tax morale in Kenya. Additionally, those who are self-employed were found to be less likely to have tax morale as compared to those employed by the government though the marginal effects were insignificant. The medium and individual taxpayers were also found to be less likely to have tax morale than the large taxpayers, though this is not statistically significant. Increasing public borrowing and corruption is likely to negatively influence the tax morale in the country though these too were found not to be statistically significant.

5.0 Conclusion and Recommendations

The study shows that the factors that significantly influence tax morale in Kenya are individual's age, gender, level of education, trust in KRA, fiscal exchange between the government and the taxpayers, tax expenditure, accountability for taxes paid and satisfaction with democracy in Kenya. The study shows that fiscal exchange is an important factor in improving the tax morale in the country. Specifically, the results show that improved fiscal exchange between the government and the taxpayers has 19.97 percentage points probability of increasing the tax morale in Kenya. The findings on tax expenditure show that provision of tax exemptions to some taxpayers have a significant negative influence on the tax morale in Kenya. At 10% level of significance, provision of tax exemptions to some taxpayers has a probability of 4.84% of decreasing tax morale in the country. The survey findings also show that lack of accountability for taxes paid has 7.55 percentage points probability of decreasing the tax morale in the country whereas satisfaction with the level of democracy in Kenya has a probability of 10.09 percent of increasing tax morale in the country.

To improve tax morale in the country, the majority (22.16%) of the respondents were of the view that KRA should carry out more civic education and sensitization on the importance of paying taxes to improve on tax morale. This was followed closely by 21.32% of the respondents who felt that proper utilization of tax revenue (improved accountability and transparency in use of taxes) should be ensured to improve on the tax morale in the country. A significant number of the respondents (12.57%) were of the view that lowering the tax rate would improve tax morale whereas 11.02% felt that improving on provision of public services and goods would improve tax morale in the country. Other recommendations that received substantial responses were eradication of corruption (6.23%), giving incentives to those who consistently pay their taxes (4.91%), fairness in treatment of all groups in the country (4.43%), improvement in job creation (3.47%), fairness in distribution of national resources (3.35%) and strict enforcement of tax laws (3.35%).

From the study findings, the following recommendations were derived:

1. The study also shows that fiscal exchange is an important factor in improving the tax morale in the country. Specifically, the results show that improved fiscal exchange between the government and the taxpayers has 19.97 percentage points probability of increasing the tax morale in Kenya whereas about 11.02% of the respondents felt that improving on provision of public services and goods would improve tax morale in the country. It therefore goes without saying that enhancing fiscal exchange (adequate provision of public goods and services) would significantly improve on the tax morale in the country.

2. The study recommends pursuit of the move by KRA to reduce tax expenditure in Kenya to less than 1.4% of GDP (Mauritian level) to release additional revenues of at least KSh 75.2 billion (KRA, 2015). This is because a substantial amount of revenue is foregone in view of the tax expenditure provisions and the regression results also show that provision

of tax exemptions to some taxpayers has a probability of 4.84% of decreasing tax morale in the country.

3. Attaining higher education was found to increase the probability of an individual having tax morale by 10.1 percentage points. Attainment of higher education presumably comes with individuals being more informed on tax issues that subsequently improve their tax morale. Therefore, KRA should put more focus in carrying out tax education at the primary and secondary school levels. Out of 835 respondents who gave their opinions on what the government should do to improve tax morale, the majority (22.16%) were of the view that KRA should enhance civic education and sensitization on the importance of paying taxes to improve on tax morale. Therefore, enhanced civic education and sensitization to the general public on tax issues is recommended to improve the tax morale in the country.
4. The study found out that lack of accountability for taxes paid has 7.55 percentage points probability of decreasing the tax morale in the country. A significant number of the respondents (21.32%) were also of the view that proper utilization of tax revenue (improved accountability and transparency in use of taxes) would improve tax morale in the country. Others (6.23%) felt that eradication of corruption would improve tax morale in the country. In line with these findings, the relevant government agencies should work towards enhancing accountability and transparency in use of taxes and reducing the perceived level of corruption in the public sector. Initiatives such as launch of national government public information portal that allows every Kenyan to access details of all investments made by the Government is a positive move towards enhancing transparency and accountability in utilization of public funds.

Like most of the studies on tax morale, this study also faced challenges of limited authenticated secondary data on the key variables that influence tax morale in an economy. Therefore, the study relied on survey data where primary data was collected across the KRA regions. There were challenges in securing field interviews with some of the large taxpayers. In carrying out similar surveys in future, the sampled large taxpayers should be communicated to well in advance to confirm their availability and willingness to participate in a similar survey.

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