# THE EFFECTS OF TAX AMNESTY ON REVENUE GROWTH IN KENYA

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## **DECLARATION**

This project is my original work and has	s not been submitted for a degree in any other
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Finally but not by no means the least, I take the opportunity to thank my family: Cecilia and Austin, for their constant help and moral support throughout my study period.

## **DEDICATION**

To God, who did it all. I also dedicate this paper to family who supported me morally and emotionally during the course of carrying out this study. To my friends, for believing in me and giving me the courage to carry on, I say thank you. May the Lord bless you abundantly.

## **ABSTRACT**

Many developed as well as developing countries conduct tax amnesties as part of their fiscal program to improve revenue growth. Many states in the US have had repeated tax amnesties in space of ten years. However, the empirical evidence on effect of tax amnesty on revenue growth has not been conclusively documented after the tax amnesty. The objective of this research was to determine the effect of tax amnesty on revenue growth in Kenya. The study adopted a descriptive research design to explore on the effects of tax amnesty on tax revenue growth and the research relied on secondary data.

The target population for the research included individual and corporate taxpayer's data on revenue for periods with and without tax amnesty for the year 1992 to year 2010 as well as growth in GDP and inflation rates for the respective periods. Convenience sampling was used to select the period of research as period from year 1995 to 2009 because Kenya had a tax amnesty in year 2004 and therefore this afforded the opportunity to examine tax revenue growth before and after the tax amnesty. Regression analysis was used to evaluate the degree of relationship between tax amnesty and revenue growth and the findings presented in tables and graphs.

The research found out that tax amnesty does not indeed have a positive effect on tax revenue growth after taking into account other factors like GDP and inflation that are likely to affect tax revenue growth. For there to be growth in revenue, tax amnesty needs to be followed by enforcements measures to ensure the benefits of the tax amnesty are realized both in the short and long-run.

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## **ABBREVIATIONS**

EACCMA - East Africa Community Customs Management Act

GDP - Gross Domestic Product at 2001 price levels

KNBS - Kenya National Bureau of Statistics

KRA - Kenya Revenue Authority

NARC - National Rainbow Coalition

SPSS - Statistical Package for the Social Sciences

SPSS - Statistical Package for the Social Sciences

USA - United States of America

#### **CHAPTER ONE**

#### INTRODUTION

## 1.1 Background of the Study

Many developed as well as developing countries conduct tax amnesties as part of their fiscal program. Some of these countries have made repeated use of amnesties, for example, Argentina, France, India, Ireland and Italy have offered tax amnesties for a number of times and sometimes the repetition of amnesty took place at an interval as short as every two years. According to Torgler, Benno, Schaltegger and Christoph (2003), the terms and conditions of tax amnesties vary from country to country. Many countries have had tax amnesties, both general amnesties and amnesties covering only specific taxes. Some amnesties have not only abated penalties but also interest and even liabilities for tax. For example, the 1996 Venezuela tax amnesty reduced tax liabilities of participating taxpayers by 75 percent and, the 1974 Panama tax amnesty reduced tax liabilities by 80 percent.

Amnesties are a controversial revenue tool. Some countries have generated large amounts of revenue with their amnesties. For example, in the United States of America; New York collected \$ 401 million, and California, Illinois and Michigan each obtained more than \$ 100 million. Other states have not been successful. Amnesties in North Dakota, Idaho, Texas, Kansas and Missouri each collected less than 41 million (Torgler et al., 2003.)

## 1.1.1Tax Revenue

Tax revenue is money earned by the State from taxation. It is the main income for the state, funding public expenditure and other costs, tangibly expressing the common efforts of the community. Tax revenue is used for financing the costs of public goods, a special group of goods whose consumption by one person does not decrease the consumption by others and, at the same time, for which it is costly or impossible to prevent consumption (e.g. street lightening). Similarly, it is common to finance by taxes the costs of goods and services having large positive externalities if they are not supplied enough by the private sector. The composition of tax revenue is the sum of the revenues of different kind of taxes, depending on what is taxed: the revenue of physical and juridical persons ("direct taxes"), wealth and assets as real estates and houses, the domestic economic transactions ("indirect taxes" - e.g. VAT), the international trade, typically through import duties

Taxes are mandatory payments, ruled by laws. Tax revenue is collected from the whole society with differentiated intensity, inspired by considerations of justice, efficiency and effectiveness (Valentino, 2003).

Between 1996 and 2005, total tax revenues increased from KShs 127.03 billion to KShs 298.9 Billion (Kenya Revenue Authority). However, in real terms, tax revenue increased from KShs 127. 03 Billion to KShs 145.81 Billion. The nominal tax revenues increased throughout the period, real tax revenues fell below the 1996 levels from 1999 to 2004 and only recovered in 2005 (KRA).

#### 1.1.2 Determinants of Tax Revenue

These determinants are categorized by Fischer et al (1992) into 4 groups in his expanded model (Fischer Model): (i) demographic (e.g. age, gender and education) (ii) non-compliance opportunity (e.g. income level, income source and occupation), (iii) attitudes and perceptions (e.g. fairness of the tax system and peer influence) and (iv) tax system/structure (e.g. complexity of the tax system, probability of detection and penalties and tax rates). Thus Fisher model of tax compliance incorporates economic, sociological and psychological factors into a comprehensive one.

Early research by Tittle (1980) testing the tax compliance level of males versus females reports that females are more likely to pay tax. Traditionally, females have been identified with conforming roles, moral restraints and more conservative life patterns (Jackson and Milliron, 1986). All these attributes may promote higher tax revenues. Experimental study conducted by Baldry (1987) also finds that females tend to be more tax compliant than males do.

Education, as a demographic variable relates to the taxpayers' ability to comprehend and comply or not comply with the tax laws (Jackson and Milliron, 1986). This relates to the general degree of fiscal knowledge and the degree of knowledge involving evasion opportunities. This knowledge is considered to be important for attitudes towards tax compliance. They find that those with more fiscal knowledge had more positive tax ethics scores (attitudes towards tax compliance will be discussed below) than those with lower fiscal knowledge. Eriksen and Fallan (1996) also find that specific tax knowledge was

positively linked to taxpayer attitude. Their study reveals that higher education is directly linked to an increased likelihood of tax compliance hence growth in tax revenue.

By using randomized response technique for a mail questionnaire survey of Australian individuals, Houston and Tran (2001) also find that taxpayers without tertiary education tend to have lower proportions of tax compliance than their counterparts with tertiary education. In addition, Richardson (2006) also reports that general education level is significantly related to tax evasion.

Almost all the theoretical model indicates that as income rises, tax evasions should increase over most ranges (Andreoni et al., 1998). Vogel (1974) finds that respondents who report an improvement in individual financial/income status during the past 5 years are more likely to commit tax evasion than those who report a deterioration of their financial/income status during the same period. Houston and Tran (2001) also reveal the respondents in the lower income group tend to have a lower proportion of tax compliance by under-reporting income and by over-claiming expenses than their counterparts in the higher income group. By investigating participants in the 1997 Arkansas tax penalty amnesty program, Ritsema et al. (2003) also find that income level is positively related to the tax owed.

Tax payers vary in terms of the opportunities available to them to overstating expenses and understating incomes. Greater tax non-compliance opportunity is generally resulted from self-employment and income sources not subject to withholding taxes. In one of the first tax compliance studies, Groves (1958) argues that income source has a significant

impact on tax compliance. Houston and Tran (2001) also reveal a significantly higher proportion of tax evasion among respondents who are self-employed.

Taxpayer's occupation also has an impact on compliance levels. This refers to an individual's employment or earnings activity (Jackson and Milliron, 1986). Sutherland (1949) argues that tax evasion is considered as a white-collar crime, committed by an individual of respectability and high social status in the course of performing his employment.

It is widely believed by tax administrators and the taxpayers that growing dissatisfaction with the fairness of tax system is the major causes for increasing tax non-compliance. Tax fairness consists of at least 2 different dimensions. One dimension appears to involve the equity of the trade - the benefits received for the tax dollars given. The other dimension appears to involve the equity of the taxpayer's burden in reference to that of other individuals (Jackson and Milliron, 1986).

Thus unfairness of the tax system may reflect taxpayers' perceptions that they are overpaying taxes in relation to the value of the services provided by government or in relation to what other taxpayers pay. Porcano (1984) finds that taxpayers' need and ability to pay are the most significant variables related to perceptions of fairness of the tax system. Other surveys conducted by Scott and Grasmick (1982) and Spicer and Lundstedt (1976) indicate that respondents who believe that the tax system is unfair are more likely to commit tax noncompliance behavior.

In general, higher audit probabilities and severe penalties encourage tax compliance. Probability of detection refers to the likelihood that the tax authorities will discover an individual's noncompliance and seek to remedy the evasion. Individuals normally would like to evade their tax liabilities entirely and the only reason they might not do so is that there is some non-zero probability of being caught (Massimo, 1993). Raising the probability of detection will increase tax compliance and tax audit represents one of the effective detective measures used by tax authorities (Alm, 1991). In fact, tax audits are considered to have both direct deterrent effect on the taxpayers actually audited and indirect deterrent effect on taxpayers not audited (Alm et al., 2004). Witte and Woodbury (1985) find a significant positive relationship between the risk of tax audit and the rate of voluntary tax compliance. However, the study by Beron et al. (1990) reveals that tax audit exert only a modest positive effect on tax compliance.

Another important factor affecting tax compliance is the relationship between tax compliance and the severity of sanctions. The idea is that fear of penalties prohibits tax noncompliance behavior. Establishing an effective system to penalize tax evaders is an important measure to encourage tax compliance. Taxpayers will be more likely to comply if noncompliance may result in severe penalties.

According to the theoretical work conducted by Allingham and Sandmo (1972), tax compliance can be increased by increasing the penalties associated with it. To be effective, penalties must be applied speedily and forcefully. Witte and Woodbury (1985) report a significant relationship between the severity of criminal sanctions and tax compliance. Other studies by Grasmick and Scott (1982) and Tittle (1980) also indicate

that respondents acknowledging some form of tax noncompliance are less likely if such acts would result in severe penalties. The experimental studies conducted by Hasseldine et al. (2007) also show that severity of sanctions has significant effects on tax compliance behavior.

As the tax law has become increasingly complex, complexity has come to be recognized as a possible reason for tax noncompliance (Jackson and Milliron, 1986). In the context of tax compliance decisions, complexity should include 2 dimensions, excessive detail in the tax rules and numerous computations required. Taxpayers should be able to understand the tax rules for computations by which they are to be taxed. These tax rules should aim to be simple, understandable and clear in order to enhance tax compliance. In general, complexity of tax system should increase as the number of criteria specified by tax laws increase. Clotfelter (1983) reveals that complexity of tax system has been associated with greater underreporting of tax.

## 1.1.3 Tax Amnesty

Tax amnesty is a limited-time opportunity for a specified group of taxpayers to pay a defined amount, in exchange for forgiveness of a tax liability (including interest and penalties) relating to a previous tax period or periods and without fear of criminal prosecution. It typically expires when some authority begins a tax investigation of the past-due tax. In some cases, legislation extending amnesty also imposes harsher penalties on those who are eligible for amnesty but do not take it. According to Luitel and Sobel (2005), a typical tax amnesty has three general characteristics. First, a tax amnesty is short lived in nature, generally lasting from three to six months. Second, participation in

an amnesty is voluntary, thirdly, individuals may decide not to participate; however, consequences of not participating could be such that if they are caught later, they could get a stiffer punishment than before. Finally, an amnesty, as the term implies, generally waives the fines and penalties associated with the evasion but not the principal amount of taxes that is due.

Many governments around the world have used tax amnesties. While structural features of tax amnesties vary considerably, all amnesties entail the common element of forgiveness that may affect revenue yield and tax payer reporting behavior. Governments aggressively used tax amnesties as a policy in the wake of 2000 global recession that left many governments finances in shambles. According to Fox and Murray (2004), the goal and objectives of amnesties are many, but increased revenue yield, expanded tax base and enhanced tax compliance certainly top the list as Governments fear that they are failing to collect substantial revenue that is due. The Kenyan Government beleaguered by declining revenues, raising expenditures, economic recession in early 2000's implemented a raft of administrative measures to address this. Some traditional administrative measures include taxpayer compliance checks, taxpayer audits, tax payer field visits, tax clinics and continuous taxpayer education.

Tax amnesties are of the revision and prosecution variety, allowing tax-payers to revise previous filing decisions and often granting immunity from prosecution as well. According to Franzoni and Stella (1999), tax amnesty encompass all taxes with recoveries dominated by the personal income tax, waive all or a portion of interest and penalties and are accompanied by increased enforcement measures. While many programs have offered protection from civil and/or criminal penalties, no known

program that I am aware of has offered audit protection. Enhanced enforcement efforts are often a component, but these show wide variety and have included increased auditing resources, improved audit selection systems and information sharing among government departments. The fact that amnesties are linked to increased enforcement complicates efforts to isolate the effects of the amnesty itself on revenue yield, tax base and taxpayer compliance behavior.

## 1.1.4 Kenyan Context

Kenya's tax system has undergone more or less continual reform over the last twenty years. On the policy side, rate schedules have been rationalized and simplified, a new Value Added Tax introduced, and external tariffs brought in line with those of neighboring countries in East Africa. At the same time, administrative and institutional reforms have taken place. Most notable among these was the creation of the semi-autonomous Kenya Revenue Authority (KRA) in 1995 to improve tax collection efficiency, which centralized the administration of tax collection.

According to Alam, Mekee and Beck (1990), Governments beleaguered by declining tax revenues in real terms and mounting expenditures in recent years have been proactive in its revenue collection by using a myriad of tax administrative measures. One of the notable tax administrative measures the KRA undertook during its second corporate plan (Kenya Revenue Authority), 2003) 2003/04 to 2005/06 is the tax amnesty. The Minister for Finance announced a tax amnesty on 10th June 2004 when presenting the 2004/2005 Budget. The amnesty covered penalties or fines under the East Africa Communality Customs Management Act 2004 (EACCMA, 2004); additional tax, penalties or fines

under the Value Added Tax Act (Cap 476); and penalties and interest under the Income Tax Act (Cap470) (Kenya Revenue Authority, 2004). The KRA advised the general public to take advantage of the amnesty which lapses on 31st December 2004. From the perspective of the Government, this move was an effort to collect millions of shillings that are being lost through dishonesty. Instead of trying to track down the "ghosts in the tax system" Finance minister David Mwiraria offered tax evaders an amnesty. Additionally, through the voluntary disclosure, the tax base may be widened. Statistical bulletins report that there was significant revenue growth as a result of the tax amnesty (Kenya Revenue Authority).

#### 1.2 Statement of the Problem

Tax amnesty is a controversial revenue tool. Proponents of amnesties argue that a one-time tax amnesty may increase future compliance if it is accompanied by greater enforcement and stronger penalties for evaders. Critics contend that the amnesties may on the other hand lead to negative impact on voluntary compliance. Honest tax payers may perceive an amnesty as a special treat tor tax evaders as a result decline in their compliance. In addition, tax payers may not believe that amnesty is a one-time opportunity. They will anticipate future amnesties and consequently decline in their compliance with an assurance of amnesty. One argument put forward by Malik and Schwab (1991) in favour of tax amnesties is that some evaders would like to join the tax system, but don't because of fines and penalties and possible public embarrassment they might face if they reveal their evasion.

On the hand, some question whether tax amnesties really produce additional revenue given that they simply collect revenue that would (or could) have been raised by normal enforcement procedures anyway. Critics also contend that tax amnesties provide incentives for otherwise honest taxpayers to start evading taxes because taxes because they will anticipate the offering of future amnesties thereby weakening tax compliance and fostering a perception of inefficiency in the tax system. Moreover, Alm and Beck (1993) and Malik and Schwab (1991) argue that to attribute the revenue collected during an amnesty solely to the amnesty itself is incorrect, because increased compliance efforts are typically announced in conjunction with the amnesty making it difficult to separate the effects of the amnesty and the threat of the increased enforcement.

Theoretical studies on human behavior on tax amnesty have been carried out especially in developed economies. However, they have not been able to rule out whether amnesty is a desirable revenue tool. They have also not been able to show the effect of amnesties in the on tax compliance and revenue growth in the long run. Lack of post-amnesty impact on revenue cited as key problems in these studies. Kimani (2006) found that the Kenya 2004 tax amnesty was well responded to by the Matatu owners in Nairobi and thus an efficient marketing promotion.

There is therefore a research gap on the effects of tax amnesty on revenue r growth and whether tax amnesty is a desirable tax administrative measure. This study therefore sought to find out whether tax amnesty has any effect on revenue growth.

## 1.3 Objective of the Study

i. To examine features of tax amnesty;

- ii. To measure the revenues growth for the period for period 1999 to 2009; and
- iii. To analyze the effects of tax amnesty on revenue growth in the economy.

## 1.4 Importance of the Study

Effective tax administration plays a significant role in any country's economic development. Amid the fiscal stress faced by Governments during and after the most recent recession, many turned to offering tax amnesties as a way to generate additional tax revenue. In this research project i intend to examine the effects of tax amnesty on revenue something that has not been previously examined.

The KRA similarly has been faced with rising revenue targets since the NARC Government took power and indications are that it has exhaustively used all administrative measures at his disposal. Of import to consider is the 2004 tax amnesty used in its second corporate plan of which success or otherwise has never been published. The Kenyan Government has placed a lot emphasis on effective and efficient collection of tax revenue in the pursuit of attainment of vision 2030 and implementation of the new constitution.

Given that effects of tax amnesty on revenue have not been documented, this study will be invaluable contribution to the existing literature. In particular, it will be therefore very valuable to the academia fraternity as it form a basis for explicative research in this area as well as literature review for further research, the Government and other stake holders in tax administration.

## **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

This chapter presents and examines existing knowledge and information of some of the key literature related to the subject of the study. This includes the concept of amnesty globally and in the Kenyan context. Notably, tax amnesty is a global concept and as such available knowledge and information has a global perspective with very limited Kenyan literature.

## 2.2 Theoretical Review

The theories upon which this study is based are discussed here as follows:

## 2.2.1 Deterrence Theory

Much early work examining tax reporting was in the criminal justice literature. Accordingly, "non-compliance" was implicitly defined as illegal tax evasion and deterrence theory provided the framework for examination. Deterrence theory is concerned with the effects of sanctions and sanction threats on criminal or undesirable behavior. The basic premise is that people choose to participate in activities that maximize their rewards and minimize their costs, tax amnesty being one of those activities. If sanctions are probable enough, and the costs severe enough to outweigh the rewards of an act, the act will not be performed. Deterrence theory was used as a basis to

examine many types of criminal behavior including tax evasion. As Tittle (1980) stated, "The fundamental premise of criminal justice is that people fear punishment and will obey the law if it provides a sufficient sanction threat". To be characterized as a theory, however, more was needed to be done to be able to postulate, or even document, relationships.

Tax amnesty is expected to be followed by increased enforcement measures as means to deter non-compliance. It is therefore expected that taxpayers would take advantage of a tax amnesty to avoid being caught up with increased enforcement measures.

## 2.2.2 Fiscal Psychology

A great deal of attention has also been given to the effects of non-economic factors such as demographics, attitudes, and perceptions on compliance. Various demographic factors (e.g., age, gender), perceptions of the legality or morality of evasion, effects of interpersonal sanctions, and perceptions of peer compliance and fairness of the tax laws have been examined explicitly as important factors in the compliance decision. Given the focus on factors not observable in macro-level archival data, fiscal psychology research usually adopts a survey or laboratory methodology. Jackson, Milliron and Kinsey (1986) and others provide extensive reviews of this research.

While fiscal psychology offers a different perspective of compliance, several methodological concerns must be considered. As discussed above, since attitudes and beliefs are not observable in archival data, a significant portion of this research relies on either self-reports of compliance, or compliance intentions. The reliability of self-reports

is questionable for several reasons, including respondents' potential lack of self-insight, simple memory lapses, and perhaps most importantly, the lack of any consequences related to the decision of interest. It has been suggested that evaders may not confess and that compliers may actually boast about actions not taken. For instance, Elffers, Weigel and Hessing (1987) were able to identify a group of actual evaders through the taxing authorities in The Netherlands and they found that one group of attitudinal variables was correlated with verifiable evasion but not with self-reports of evasion while another set of attitudes were correlated with self-reports but not with verifiable behavior. Self-reports and verifiable behavior were uncorrelated with both evaders and compliers giving inaccurate self-reports. For example, like tax administrators, taxpayers are biased judges of their own compliance and may not report cases of abuse or exploitation if they do not interpret them as noncompliance.

Becker, Buchner and Sleeking (1987) concluded that the predictions of most economic models, the audit rate (income level) had a positive (negative) effect on compliance. Further, both the amount of actual government expenditures received and the perceived tax burden were positively related to compliance. In the terminology of Tittle (1980), the studies have documented relationships between various demographic and attitudinal variables and compliance, but have often failed to identify the mechanism through which the relationships exist or operate. Until such mechanisms are identified, and the constructs can be meaningfully measured, this line of research may have reached a theoretical plateau.

Accordingly, fiscal psychology theorists argue that there exists a perfect mix of non-economic factors for the optimal revenue growth. However, the effect of these non-economic factors during tax amnesty has not been investigated since it is expected tax revenue will grow as a result of a tax amnesty.

## 2.2.3 Agency Theory

Klein, Crawford and Alchin (1978) argue that incentives to take advantage of other parties are so strong that firms often vertically integrate, even at the cost of efficiency, to avoid the unfavorable outcomes of relying on contractual relationships. In general, agency theory suggests that policy-makers and tax administrators should be wary about any assumption that uncompelled agents or vendors will represent the state and collect the tax. This does not mean firms will never comply with a request to contribute to society. In fact there is substantial evidence of corporate social responsibility (Tucker and Henkel, 1992). Finding behavior of people who contribute to the good of an organization or association on a purely voluntary basis is common. Religious organizations, voluntary fire departments, and boys and girls clubs are among many examples. There are also situations in which groups participate in programs that benefit the community, even though they are only partially compensated for their activities.

In agency models, the government (i.e. the principal) pre-commits to an audit strategy in order to encourage maximum compliance by taxpayers. For instance, Reinganum and Wilde (1985) model the taxpayer as a risk-neutral agent of the government who has private knowledge of his own income. The government, whose goal is to maximize tax revenues net of audit costs, cannot observe actual income without costly investigation.

Reinganum and Wilde use this setting to compare a random audit strategy of the type implied in early models with a cut-off audit strategy in which an agent triggers an audit by reporting below a certain level of income. They show that the use of a cut-off strategy weakly dominates a random audit strategy because it will induce truthful reporting at the least cost. In addition to the desirable effect on compliance, they argue that such a strategy would enhance horizontal equity ex- post over random auditing since those with equal incomes will be audited with equal certainty.

## 2.2.4 Neoclassical Theory

Neoclassical theories have analyzed the impact of tax amnesties from a different perspective. Alm and Beck (1993) show that amnesties may sometimes increase compliance and tax collections, especially if individuals perceive paying taxes is the social norm and the amnesty is accompanied by heightened enforcement efforts. However, amnesty revenues may come at the expense of reduced long-run tax revenues because of the reduction in tax compliance. The authors conclude that although tax amnesties generate short-term revenues, their ability to generate revenues in the long run is ambiguous. Andreoni (1991) on the other hand, examines fully anticipated tax amnesties and finds that evasion rises as a result of the amnesty but tax revenue does not necessarily fall. This is because evasion rises only to the extent that people expect to participate in the amnesty and if they participate in the amnesty, then the government is able to recapture not only the new evasion but also the pre-existing evasion. If the initial evasion is large, then the amnesty may increase tax revenue even if there is an increase in evasion.

Most often the success of an amnesty is measured in terms of revenue yield and attracting participants and retaining them in the tax system in subsequent years. Fisher, Godderis and Young (1989), Joulfaian (1988) and Christian, Gupta and Young (2002) have made attempts to address the latter issue. Analyzing the 1986 Michigan amnesty, Fisher, Godderis and Young (1989) find that most non-filers were out of compliance only for a single year prior to the amnesty, that only a small number of taxpayers evaded large amounts of taxes over long periods of time, and that most taxpayers used the amnesty as an opportunity to pay a relatively small amounts of overdue taxes. Similarly, using 1983 Massachusetts amnesty data, Joulfaian (1988) finds that habitual evaders, or evaders who pay taxes but underreport them, generally did not participate in the amnesty program. This conclusion is at odds with the claim that amnesties bring habitual evaders back into the system, providing substantial long-run revenue gains. In a recent study of the 1986 Michigan amnesty, in sharp contrast to previous findings, Christian, Gupta, and Young (2002) find that a substantial portion of amnesty program participants subsequently continued to file tax returns. They conclude that the 1983 Michigan amnesty was successful in attracting many participants and in retaining many of them in the system, however, its impact on revenue was negligible (about 0.1 percent of state personal income tax revenue).

## 2.3 Empirical Review of Global Studies

Many countries conduct tax amnesties as part of their fiscal program. Some of these countries have made repeated use of amnesties. For example, Argentina, France, India, Ireland and Italy have offered tax amnesties for a number of times and sometimes the repetition of amnesty took place at an interval as short as every two years.

In order to examine the long run effects of a tax amnesty, Alm, McKee and Beck (1990) use laboratory experimental methods and find that compliance falls after an amnesty, however, they also find compliance to rise if post amnesty enforcement efforts are increased. Using cross-country experiments in Switzerland and Costa Rica, Torgler and Schaltegger (2003) and Torgler, Schaltegger and Schanffner (2003) find that long-run tax compliance rises if the possible tax amnesty is subjected to a popular vote, regardless of whether the amnesty is passed or rejected. However, Torgler et al (2003) also find that the anticipation of a future tax amnesty has a negative effect on tax compliance.

The terms and conditions of tax amnesties vary from country to country. Many countries have had tax amnesties, both general amnesties and amnesties covering only specific taxes. Some amnesties have not only abated penalties but also interest and even liabilities for tax. For example, the 1996 Venezuela tax amnesty reduced tax liabilities of participating taxpayers by 75 percent and, the 1974 Panama tax amnesty reduced tax liabilities by 80 percent. Many amnesties have allowed taxpayers with accounts receivable or in civil tax litigation to participate. For example, the 1995 Argentina tax amnesty allowed even taxpayers involved in criminal tax proceedings to participate in the amnesty. Likewise, amnesty collection across countries varies quite a lot.

In the United States of America, some states have generated large amounts of revenues with their amnesties; New York collected \$401 million, and California, Illinois, and Michigan each obtained more than \$100 million. Other states have not been as successful. Amnesties in Idaho, Texas, Kansas and Missouri each collected less than \$1 million.

## 2.4 Conclusion of Literature Review

Tax evasion occurs when individuals fail to comply with their tax obligations. The resulting effects may have serious damages to the well functioning of the public sector; this may be due to lack of enough revenue by the Government to provide public goods to its citizens.

Non compliance has been present since the inception of taxation. People do not like paying taxes and hence may look for ways of reducing their payments. Different reasons are advanced for not complying with tax regulations. These include lack of money; unfairness in the tax system; complexity associated with the tax laws and requirements; and people not being aware of what is expected of them.

Amnesty is grant through law which is given to a class of tax payers to shield them from prosecution. A tax amnesty is supposed to be a reform measure to broaden the tax base and raise revenue collections by allowing taxpayers in default to correct their previously under-reported tax liabilities.

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter outlines the research methodologies which include the research design, population and its sample, data collection methods and the mode of data analysis and presentation.

## 3.2 Research Design

The nature of the study is a descriptive research which is aimed at describing the effects of tax amnesty offered to taxpayers in 2004 in improving revenue. Descriptive design discovers and measures the cause and effect of relationships between variables (Cooper and Schindler, 2003). Descriptive design allowed collection of a large quantity of indepth information about the population being studied and enable the researcher to test and measure the population needed for quantitative experimentation since it gives valuable pointers as to what variables are worth testing quantitatively.

## 3.3 Population

The target population for the research includes individual and corporate taxpayer's data on revenue for periods with and without tax amnesty. The population size was tax revenue data for eighteen years from year 1992 to 2010.

## 3.4 Sample and Sampling Procedure

The research covered a period of fifteen years from 1995 to 2009. Convenience sampling method was used to select sixteen year period. This is assumed reasonable to demonstrate the effects of tax amnesty on revenue growth seven years before the tax amnesty in 2004 and five years after the amnesty.

#### 3.5 Data Collections Methods

This research relied on secondary data. The main source of secondary data that was relied on is the statistical bulletins by the KRA, World Bank and KNBS. The statistical bulletins were used to identify tax revenues growth during period of tax amnesty and periods without tax amnesty. In addition, the data was used to describe the effects of tax amnesty on revenue. Growth in tax revenue, if any, in period of tax amnesty was compared to growth in periods without tax amnesty.

## 3.6 Research Model, Data Analysis and Presentation

Inferential analyses was used to make references from the data to more general conditions while descriptive statistics was used to simply describe what's going on in the data. The research model estimated was a general regression model:

Dependent Variable (Y): increase of tax revenue amounts over the period of research.

These will be collected from tax revenue statistical bulletins available at the KRA and KNBS.

The following were the independent variables:

i. Tax amnesty-presence of tax amnesty intervention or otherwise-  $X_{1;}$ 

ii. Growth in Gross Domestic Product (GDP) over the period of research-X<sub>2</sub>;

and

iii. Rate of inflation over the period of research-X<sub>3</sub>.

The research model estimated was general multiple regression model as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \in$$

Where Y= Increase in tax revenue over the period of research;

 $B_0 = Y$  intercept/Constant;

 $X_1 = Tax$  amnesty effect represented by a dummy variable equal to 1 in the period(s) of

tax amnesty and 0 otherwise;

 $X_2 = Growth in GDP;$ 

X<sub>3</sub>=Inflation rate; and

€= Error term to capture the un-explainable effect on tax revenue.

The research used the Statistical Package for the Social Sciences (SPSS) to estimate the

result of the correlation between the variables. Regression analysis was used to evaluate

the degree of relationship between amnesties and revenue growth. Regression was used

to analyze the relationship between the independent and dependent variable to predict the

score of the dependent variable from the independent variable.

#### **CHAPTER FOUR**

## DATA ANALYSIS RESULTS AND DISCUSSION

## 4.1 Introduction

This chapter presents the research findings on the effects of tax amnesty on revenue growth in the economy. The study was conducted for the period of 1995 to 2010 where various data on tax amnesty, tax revenue growth, inflation and Gross domestic product was obtained from relevant source, descriptive analysis and regression analysis was used to analyse the data.

## 4.2 Data Analysis and Interpretation

## **4.2.1 Descriptive Statistics on Variables**

Table 4. 1: Descriptive analysis of variables

	Minimum	Maximum	Mean	Std. Deviation
Tax Revenue (KShs	95,350	498,637	233,374	124,567
Millions)				
Tax Amnesty (Dummy)	.00	1.00	.0625	.25000
GDP (KShs Millions)	465,251	255,1161	1,313,152	619,338
Inflation (%)	1.55	26.24	9.2062	5.77115

From the findings on descriptive analysis of various variables, the study found that mean for the tax revenue was KShs 233,374.5625 Million, the mean for the Tax amnesty for the period was 0.0625 points, and the mean GDP was KShs 1,313,152 Millions whereas the mean inflation was 9.2062%.

## 4.2.2 Regression Analysis

**Table 4. 2: Model Summary** 

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.996 <sup>a</sup>	.991	.989	13,102.16859	

From the findings in the above table, adjusted R square is coefficient of determination which show the variation in tax revenue due to changes in tax amnesty, Gross domestic product and inflation rate in the country, from the findings the value of adjusted R square was 0.989 which is an indication that there was 98.9% variation in tax revenue due to changes in tax amnesty, Gross domestic product and inflation rate in the country at 95% confidence interval, the study found that there was strong relationship between tax revenue and tax amnesty, Gross domestic product and inflation rate in the country.

Table 4. 3: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	230694064391.921	3	76898021463.974	447.949	.000 <sup>b</sup>
	Residual	2060001862.016	12	171666821.835		
	Total	232754066253.938	15			

In order to determine the significance of the model, the ANOVA analysis for the model was done, From the ANOVA statics in table above, the processed data, which is the population parameters, had a significance level of 0% which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%.

**Table 4. 4: Regression Coefficients** 

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		В	Std. Error	Beta		
1	(Constant)	-	8442.422		-2.971	.012
		25084.258				
	Tax	-7782.425	13643.664	016	570	.009
	Amnesty					
	GDP	.203	.006	1.008	34.429	.000
	Inflation	-794.097	635.899	037	-1.249	.036

From the findings the following regression model was established

$$Y = -25084.258 - 7782.425 X_1 + 0.203 X_2 - 794.097 X_3$$

From the finding in the above regression analysis, it was revealed that holding Tax amnesty, Gross domestic product and inflation to a constant zero tax revenue would stand at -25084.258, a unit increase in tax amnesty would lead to decrease in tax revenue

by a factor of -7782.425, unit increase in Gross domestic product would lead to increase in tax revenue by a factor of 0.203, further unit increase in inflation would lead to decrease in tax revenue by a factor of -794.097, it was further revealed that all the variable were statistically significant as their p-value were less than 0.05.

## 4.2.3 Descriptive Statistic on the Changes

The study conducted a descriptive statistic on the change in tax revenue, tax amnesty, Gross domestic product and inflation. The results are presented in the table below.

**Table 4. 5: Descriptive Statistics** 

	N	Minimum	Maximum	Mean	Std.
					Deviation
Tax Revenue	15	2,860.00	70,201.00	26,885.8000	21928.26476
(KShs Millions)					
Tax Amnesty	15	-1.00	1.00	.0000	.37796
(Dummy)					
GDP (KShs	15	15,152.00	27,7660.00	139,060.6667	82707.00296
Millions)					
Inflation %	15	-17.01	16.48	.1607	7.68397
Valid N	15				

From the findings on descriptive analysis of various variables changes, the study found that mean for the tax revenue change was KShs 26,885.8000 Millions, the mean for the

Tax amnesty changes for the period was 0.000 points, the mean GDP changes was KShs 139,060.6667 Million whereas the mean inflation changes was 0.1607%.

## 4.2.4 Regression Analysis for Changes

Table 4. 6: Model Summary for changes

Model	R R Square		Adjusted R Square	Std. Error of the Estimate	
1	.839 <sup>a</sup>	.704	.692	16671.71651	
1	.039	.704	.092	100/1./1031	

From the findings in the above table, adjusted R square is coefficient of determination which show the variation in tax revenue due to changes in tax amnesty, changes in gross domestic product and changes inflation rate in the country, from the findings the value of adjusted R square was 0.692 which is an indication that there was 69.2% variation in tax revenue due to changes in tax amnesty, Gross domestic product and inflation rate in the country at 95% confidence interval, the study found that there was strong relationship between tax revenue and tax amnesty, Gross domestic product and inflation rate in the country.

**Table 4.7: ANOVA for Changes** 

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3674475689.663	3	1224825229.888	4.407	.029 <sup>b</sup>
	Residual	3057407446.737	11	277946131.522		
	Total	6731883136.400	14			

In order to determine the significance of the model, the ANOVA analysis for the model was done, From the ANOVA statics in table above, the processed data, which is the

population parameters, had a significance level of 2.9% which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%.

**Table 4. 8: Regression Coefficients for Changes** 

Model		Unstandardized Coefficients		Standardized	t	Sig.
				Coefficients		
		В	Std. Error	Beta		
1	(Constant)	-285.984	8674.493		033	.974
	Tax Amnesty	-	11823.546	082	402	.016
		4748.934				
	GDP	.196	.054	.738	3.609	.004
	Inflation	-290.488	585.422	102	496	.030

From the findings the following regression model was established

$$Y = -285.984 - 4748.934 X_1 + 0.196 X_2 - 290.488 X_3$$

From the finding in the above regression analysis, it was revealed that holding Tax amnesty, Gross domestic product and inflation to a constant zero tax revenue would stand at -285.984, a unit increase in tax amnesty would lead to decrease in tax revenue by a factor of 4748.934, unit increase in Gross domestic product would lead to increase in tax revenue by a factor of 0.196, further unit increase in inflation would lead to decrease in tax revenue by a factor of 290.488, it was further revealed that all the variable were

statistically significant as their p-value were less than 0.05.

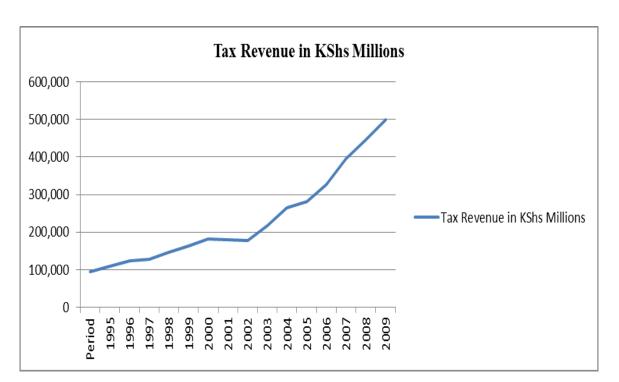


Figure 4. 1: Graph for Tax revenue

From the graph on tax revenue the study found that there had been steady growth in the tax revenue from the year 1995 to years 2010, though rapid increase in tax revenues could be seen from the year 2003, this largely could be attributed to change in the governance of the country after 2002 general election.

# 4.3 Summary and Interpretation of Findings

From the finding the following regression analysis was established

$$Y = -25084.258 - 7782.425 X_1 + 0.203 X_2 - 794.097 X_3$$

$$Y = -285.984 - 4748.934 X_1 + 0.196 X_2 - 290.488 X_3$$

From the findings the study revealed that there was a strong relationship between tax revenue growth and tax revenue, inflation rate and gross domestic product. The study further revealed that there was negative association between tax revenue growth and inflation and tax amnesty. The study also found that there was a positive relationship between tax revenue growth and gross domestic product. Torgler and Schaltegger (2003) and Torgler, Schaltegger and Schanffner (2003) find that long-run tax compliance rises if the possible tax amnesty is subjected to a popular vote, regardless of whether the amnesty is passed or rejected. However, Torgler, Schaltegger and Schanffner (2003) also find that the anticipation of a future tax amnesty has a negative effect on tax compliance. Many amnesties have allowed taxpayers with accounts receivable or in civil tax litigation to participate. For example, the 1995 Argentina tax amnesty allowed even taxpayers involved in criminal tax proceedings to participate in the amnesty. Likewise, amnesty collection across countries varies quite a lot. In the United States of America, some states have generated large amounts of revenues with their amnesties; New York collected \$401 million, and California, Illinois, and Michigan each obtained more than \$100 million. Other states have not been as successful. Amnesties in Idaho, Texas, Kansas and Missouri each collected less than \$1 million.

Most often the success of an amnesty is measured in terms of revenue yield and attracting participants and retaining them in the tax system in subsequent years. Fisher, Godderis and Young (1989), Joulfaian (1988) and Christian, Gupta and Young (2002) have made attempts to address the latter issue. Analyzing the 1986 Michigan amnesty, Fisher, Godderis and Young (1989) find that most non-filers were out of compliance only for a single year prior to the amnesty, that only a small number of taxpayers evaded

large amounts of taxes over long periods of time, and that most taxpayers used the amnesty as an opportunity to pay a relatively small amounts of overdue taxes. Similarly, using 1983 Massachusetts amnesty data, Joulfaian (1988) finds that habitual evaders, or evaders who pay taxes but underreport them, generally did not participate in the amnesty program. This conclusion is at odds with the claim that amnesties bring habitual evaders back into the system, providing substantial long-run revenue gains. In a recent study of the 1986 Michigan amnesty, in sharp contrast to previous findings, Christian, Gupta, and Young (2002) find that a substantial portion of amnesty program participants subsequently continued to file tax returns. They conclude that the 1983 Michigan amnesty was successful in attracting many participants and in retaining many of them in the system, however, its impact on revenue was negligible (about 0.1 percent of state personal income tax revenue).

#### **CHAPTER FIVE**

#### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the research summary, conclusions and recommendations for further research

## **5.2 Summary**

From the findings on descriptive analysis of various variables, the study found that mean for the tax revenue was KShs 233,374.5625 Millions, the mean for the Tax amnesty for the period was 0.0625 points, and the mean GDP was KShs 1,313,152 Millions whereas the mean inflation was 9.2062%. The study found that there was strong relationship between tax revenue and tax amnesty, Gross domestic product and inflation rate in the country. In order to determine the significance of the model, the processed data, which is the population parameters, had a significance level of 0% which shows that the data is ideal for making a conclusion on the population's parameter. From the findings the following regression model was established

$$Y = -25084.258 - 7782.425 X_1 + 0.203 X_2 - 794.097 X_3$$

From the findings the following regression model was established

$$Y = -285.984 - 4748.934 X_1 + 0.196 X_2 - 290.488 X_3$$

From the findings the study found that is a strong relationship between tax revenue growth and tax revenue, inflation rate and gross domestic product. The study found that there was negative association between tax revenue growth, inflation rate and tax amnesty. The study also found that there was a positive relationship between tax revenue growth and gross domestic product. From the graph on tax revenue the study found that there had been steady growth in the tax revenue from the year 1995 to years 2010, though rapid increase in tax revenues could be seen from the year 2003, this largely could be attributed to change in the governance of the country after 2002 general election.

#### 5.3 Conclusion

From the findings concludes that is a strong relationship between tax revenue growth and tax revenue, inflation rate and gross domestic product. The study found that there was negative association between tax revenue growth, inflation rate and tax amnesty. The study also found that there was a positive relationship between tax revenue growth and gross domestic product. Amnesties have become increasingly popular with passage of time but there is very little systematic empirical evidence on why tax administrations often result to tax amnesties and how amnesties have affected revenue growth. This research has explored this and empirical results indicate that amnesty adoption depends systematically on array of economic, fiscal and political influence. In addition results indicate that amnesty by itself does not have a positive effect on revenue growth. It is also anticipated that in the advent of County Governments which are expected to be semi-autonomous, that they will resort to amnesty to improve their revenue. This in

effect therefore creates potential areas of research to provide more empirical evidence on productivities of amnesties.

## **5.4 Policy Recommendation**

There is need for Kenya revenue Authority to; simplify the tax system; improve the accuracy of the withholding tax system in order to reduce the number of taxpayers required to file tax returns; reducing compliance costs for businesses, especially small businesses; improve the ability of taxpayers to determine, calculate and satisfy their income tax obligations; help taxpayers determine how the tax system applies in particular circumstances; improving society's compliance attitudes toward tax compliance by promoting to the community the consequences to the evader and to society generally of people cheating on their tax obligation and utilize intelligence collected from the several customers to know how well to administer tax collections and implement a wide range of compliance improvement initiatives by conducting awareness forums on tax issues to the public.

# **5.5 Limitations for the Study**

Secondary data was collected from the relevant source from Kenya revenue authority. The study was also limited to the degree of precision of the data obtained from the secondary source. While the data was verifiable since it came from the KRA statistical publications and World Bank data bank, it nonetheless could still be prone to these shortcomings. The study was limited to establishing the relationship effects of tax amnesty on tax revenue growth. Tax amnesty research needs to be taken with a lot of

caution as there may be other factors which influence tax revenue growth which might not be captured in the study.

The model may not be reliable due to some shortcoming of the regression models. Due to the shortcomings of regression models, other models can be used to explain the various relationships between the variables.

There are also other factors that may also affect tax revenue besides tax amnesty like taxpayer education at and during the inception of the tax amnesty; which are non-quantifiable in nature and therefore not measurable that need to be fused with the above model to improve the research findings.

Further the fact that tax amnesty in Kenya was only declared once in the recent past and therefore a new concept in tax revenue management may be hindrance to draw conclusion for the effect of tax amnesty on revenue growth. For further development of empirical evidence on effect of tax amnesty on revenue growth research ought to be carried after repeated amnesties within a spell of time.

The sample of the research was for fifteen years which seems adequate for postulating the population parameters. However, the object of study only occurred only once over the period of study. This presents a limitation in that the tax amnesty occurrence over the period of study has been used to postulate the population parameters.

Tax amnesty cannot be scientifically measured like other variables in the study: GDP and inflation. In the study a dummy variable was introduced as a means of measurement

where 1 represented presence of tax amnesty and 0 for otherwise. This extreme values may have introduced extremities in the research findings.

#### **5.6** Areas for Further Research

The research focused on only the effect of tax amnesty on tax revenue growth. Owing to limitation of tax amnesty to effect revenue without enforcement procedures following declaration of the amnesty, future researchers may direct their efforts at establishing combinations of enforcement measures to be undertaken with amnesties to ensure revenue growth both in the short and long-term.

There is also a research gap on the long-term effect of repeated amnesties in Kenya which other researchers may build on to provide further empirical evidence on effect of tax amnesty on revenue growth.

In the recent past, we have seen the various Local Authorities in Kenya declare amnesties to collect land rates and rents. It is further expected that in the advent of County Governments in Kenya that amnesties will become more popular and frequent to improve revenue collection as the case has been in the US for the various states. This presents further opportunity for local research to provide empirical evidence on this.

#### **REFERENCES**

- Allingham, M. G. and Sandmo. A. (1972). Income Tax Evasion: A Theoretical Analysis. *Journal of Public Economics*. 1 (3/4) pp. 323-327.
- Alm, J, Jackson, B. and McKee, M. (2004). *Audit Information Dissemination, Taxpayer Communication, and Compliance:* An Experimental Approach Paper prepared for 2004 IRS Research Conference.
- Alm, J. (1991). A perspective on the experimental analysis of taxpayer reporting. Acc. Rev., 66: 577-593.
- Alm, J. and Beck, T. (1990). Amazing Grace: Tax Amnesties and Compliance, *National Tax Journal* 43 No. 1: 23-37.
- Alm, J. and Beck, T. (1991). Wiping the Slate Clean: Individual Response to State Tax Amnesties, *Southern Economic Journal* 57 No 4: 1043-1053.
- Alm, J. and Beck, T. (1993). Tax Amnesties and Compliance in the Long Run: A Time Series Analysis, *National Tax Journal* 46 No. 1: 53-60.
- Alm, J., Jackson, B. R. and Mckee, M. (1990). Estimating the Determinants of Taxpayer Compliance with Experimental Data, *National Tax Journal*, Vol. 65, No.1, March, pp. 107114.
- Andreoni, J. (1991). The Desirability of a Permanent Tax Amnesty, *Journal of Public Economics* 45 No. 2: 143-159.

- Andreoni, J. Erard, B. Feinstein, J. (1998). *Journal of Economic Literature*, Vol 36, No2., pp 818
- Andvig, J. C. and Moene, K.O. (1990). How corruption may corrupt, *Journal of economic behavior and organization*, 13:63-76
- Becker, G. S. (1968). The impact of public transfer expenditures on tax evasion: an experimental approach, *Journal of public economics*, 34:243-52
- Becker, G.S., Buchecner, H. J. and Sleeking, S. (1987). The impact of public transfer expenditures on tax evasion: an experimental approach, *Journal of public economics*, 34:243-52
- Beron, K. Tauchen, H. V. and Witte, A. D. (1990). *The Effects of Audits and Socio*economic Variables on Compliance Working paper, University of North Carolina.
- Christian, C. W., Gupta, S. and Young, J. C. (2002). Evidence on Subsequent Filing from the State of Michigan's Income Tax Amnesty, *National Tax Journal* 55 No. 4: 703-721.
- Clotfelter, C. T. (1983). Tax evasion and tax rates: An analysis of individual returns, Review of Economics and Statistics, Vol. 65, 363-373.
- Cooper, D. R. and Schinder, P. S. (2003). *Business Research Methods* (8th Edition): McGraw-Hill Irwin
- Effers, H., Weigel, R. H. and Hessing, D. (1987). Tax evasion: an experimental approach,

- *Journal of economic psychology*, 8: 311-37
- Eriksen, K. and Fallan, L. (1996). *Tax Knowledge and Attitudes Towards Taxation*: A Report on a Quasi-experiment. J. Econ. Psychol. 17: 387-402.
- Fischer, C. M. Wartick M. and Mark, M. (1992). Detection Probability and Taxpayer Compliance: A Review of the Literature. J. Acc. Lit. 11: 1-46.
- Fisher, R. C., Godderis, J. H. and Young, J. C. (1989). Participation in Tax Amnesties: The Individual Income Tax, *National Tax Journal* 42 No. 1: 15-27.
- Fox, W. F. and Murray, M. N. (2011). Bayesian Analysis of the Effect of Amnesties on Tax Revenues and Filling Rates.
- Franzoni, L. A. and Stella, P. N. (1996). Punishment and Grace: On the Economics of Tax Amnesties. *Public Finance* 51 No. 3: 353-368.
- Gordon, R, (1989), Individual morality and regulation costs as deterrents to tax evasion, *European Economic Review*, 33:797-805.
- Grasmick, H. and Bursik, R. (1990), *Extending the deterrence model*, Law and Society Review, 24(3): 837-861.
- Grasmick, H. and Scott, W. J. (1982). Tax Evasion and Mechanisms of Social Control: A Comparison with Grand and Petty Theft. *J Econ. Psychol.* 2: 213-230.
- Groves, H. (1958). Empirical Studies of Income Tax Compliance. *National Tax Journal*.

  December: 291-301.

- Hasseldine, J., Hite, P. James, S. and Toumi, M. (2007). *Persuasive Communications:*Tax Compliance Enforcement Strategies for Sole Proprietors
- Houston, J. and Tran, A. (2001). A Survey of Tax Evasion Using the Randomized Response Technique. Adv. Taxation, 13: 69-94. Inland Revenue Department (IRD) (2007). Annual Report, 2006-2007.
- Jackson, B. and Milliron, V. (1986). Tax Compliance Research: Findings, Problems, and Prospects. *Journal of Accounting Literature*, 5, pp. 125-165.
- Jackson, B. R., Milliron, V. C. and Kinsey, K.V. (1980). Tax compliance research: findings, problems and prospects *Journal of accounting literature*,5: 125-165
- Jackson, B. R., Milliron, V. C. and Kinsey, W. (1986). Tax compliance research: Findings, problems and prospects. *Journal of Accounting Literature*, Issue 5, pp. 125165.
- Jarque, C. M. and Bera, A. K. (1980). Efficient tests for normality, homoscedasticity and serial independence of regression residuals. *Economics Letters* 6 (3): 255–259
- Joulfaian, D. (1988). Participation in Tax Amnesties: Evidence from a State, In Proceedings of the Eighty-first Annual Conference on Taxation, Washington D.C.: *National Tax Association*: 128-32.
- Kenya Revenue Authority (KRA 2005, Statistical Bulletin)
- Kenya Revenue Authority (www.kra.go.ke/publications/krasecondcorporateplan)

- Kenya Revenue Authority (www.revenue.go.ke/notices/noticespublic/amnesty).
- Kimani, S. W. (2006). Responses of Matatu Owners in Nairobi to KRA Tax Amnesty

  Marketing Promotion.
- Klein, B., Crawford R. E., and Achien, A. A. (1978). Vertical integration, appropriate rents, and the competitive contracting process, unpublished manuscript: P.297
- Luitel, H. S. and Sobel, R. S. (2005). The Revenue Impact of Repeated Amnesties.
- Malik, A. S., and Schwab, R. M. (October, 1991). The Economics of Tax Amnesties, *Journal of Public Economics* 46 No. 1: 29-49.
- Massimo, B. (1993). A Fairness Approach to Income Tax Evasion. *J. Public Econ.* 52: 345-362.
- McEwen, C. and Maiman, R. (1986). In search of legitimacy: toward an empirical response analysis, *Law and Policy*, 8: 257-260.
- Mikesell, J. L., (1986). Amnesties for state tax evaders: the nature of and response to recent programs, *National tax Journal*, 39(4): 501-516.
- Porcano, T.M. (1984). 'Distributive justice and tax policy' *The Accounting Review* vol. 59, pp. 619 636.
- Reinganum, J. F. and Wilde, L. L. (1985). taxpayer compliance under uncertainty, *Journal of accounting and public policy*: V8, P17-27.

- Richardson, G. (2006). Determinants of tax evasion: a cross-country investigation. *J. Int.*Acc. Auditing Taxation, 15: 150-169.
- Ritsema, C.M. and Thomas, D.W. (2003). Economic behavioral determinants of tax compliance: *Journal of Accounting and Taxation* Vol.1 (2), pp. 034-040, July, 2009
- Schwartz, R.D. and Orleans, S., (1967). *On legal sanctions*, the university of Chicago Law review (winter) 274-300
- Scott, W. J. and Gramsmick, H.G. (1982). Tax Evasion and Mechanism of Social Control. A Comparison with Grand and Petty Theft. Journal of Economic Psychology. (2) pp. 213-230.
- Spicer, M.W. and Lundstedt, S.B. (1976). Understanding tax evasion, *Public Finance* 31 (2). 295
- Sutherland, E. (1949). White Collar Crime New York: Dryden.
- Tittle, C. (1980). Sanctions and Social Deviance: The Question of Deterrence New York:

  Praeger.
- Torgler, A., Benno, S., Schaltegger, W., and Christoph, A. (2003). Tax Amnesty and Political Participation, University of Basel, WWZ. *Journal of Political Economy*, Vol. 76, 169-217.
- Tucker, N. and Henkel, J. (1992). Legal and ethical environment of business

- Valentino, P. (2003), Tax Revenue: Economics Website Institute
- Vogel, J. (1974). Taxation and public opinion in Sweden: An interpretation of recent data, *National Tax Journal* 27 (4) 499-514.
- Witte, A. and Woodbury, D. (1985). The Effect of Tax Laws and Tax Administration on Tax Compliance: The Case of the U.S. Individual Income Tax. *Natl. Tax J.*March: 1-13.

# **APPENDICES**

# Appendix I - Population Data

Period	Tax Revenue	Tax Amnesty	GDP	Inflation
(Year)	(KShs Millions)	(Dummy variable)	(KShs Million)	%
1992	48,682	0	264,472	27.33
1993	49,927	0	333,611	45.98
1994	59,350	0	400,658	28.81
1995	95,350	0	465,251	1.55
1996	109,031	0	687,998	8.86
1997	123,729	0	770,313	11.36
1998	128,127	0	850,808	6.72
1999	146,509	0	906,928	5.74
2000	162,898	0	967,837	9.98
2001	181,924	0	1,020,221	5.74
2002	179,064	0	1,035,373	1.96
2003	178,434	0	1,131,782	9.82
2004	216,290	1	1,274,329	11.62
2005	264,322	0	1,415,725	10.31
2006	281,940	0	1,622,567	14.45
2007	326,185	0	1,833,513	9.76
2008	396,386	0	2,111,173	26.24
2009	445,167	0	2,365,453	9.23
2010	498,637	0	2,551,161	3.96

Appendix II - Sample Data

Period   Change in Tax		Change in Tax	Change in GDP	Change in	
(Year)	Revenue	Amnesty	(KShs Million)	Inflation	
	(KShs Million)	(Dummy variable)		%	
1995	13681	0	222747	7.31	
1996	14698	0	82315	2.5	
1997	4398	0	80495	-4.64	
1998	18382	0	56120	-0.98	
1999	16389	0	60909	4.24	
2000	19026	0	52384	-4.24	
2001	-2860	0	15152	-3.78	
2002	-630	0	96409	7.86	
2003	37856	0	142547	1.8	
2004	48032	-1	141396	-1.31	
2005	17618	0	206842	4.14	
2006	44245	0	210946	-4.69	
2007	70201	0	277660	16.48	
2008	48781	0	254280	-17.01	
2009	53470	0	185708	-5.27	