

**TAXPAYER EDUCATION AND TAX COMPLIANCE: AN ANALYSIS OF  
PAYE FROM THE MANUFACTURING SECTOR IN KENYA: A CASE OF  
MEDIUM TAXPAYERS OFFICE**

**BY**

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## DECLARATION

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

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## DEDICATION

To my family

## ABSTRACT

Kenya is ranked among low-income countries or low compliance countries with hard task of ensuring efficient and effective tax administration. KRA performs monthly taxpayer education to all newly registered taxpayers in a bid to improve tax compliance. Whether the increased taxpayer education has led to improved tax compliance has not been captured in any empirical study. This study therefore sought to establish the influence of taxpayer education in Kenya on tax compliance with a specific emphasis on the compliance on Pay-As-You-Earn (PAYE) form of tax. The objectives of this study were to determine whether differences in PAYE filling patterns are related to taxpayer levels of education and to determine whether differences in PAYE remittance patterns are related to taxpayer levels of education.

This study used a longitudinal survey design. The population of this study was all the 64 taxpayers in the manufacturing sector under medium taxpayers' office (MTO). A sample size of 55 firms was selected. Both primary and secondary data were collected. The primary data was used to establish the taxpayers level of education administered using telephone interviews. The secondary data was gathered from the Domestic Taxes Department of KRA in Nairobi. Data was analysed using descriptive analysis, cross-tabulations, correlation analysis, and regression analysis.

The study found no statistically significant differences between educated and non-educated taxpayers in terms of their PAYE remittance and filling patterns. The Levene's test was insignificant for both the PAYE remittance and filling. The  $\chi^2$  test for differences between educated and non-educated taxpayers for PAYE remittance was insignificant at 5% level. Further, the  $\chi^2$  test for differences between educated and

non-educated taxpayers for PAYE filling patterns was insignificant at 5% level. The study found that the level of taxpayer training had an insignificant negative relationship with the amount of PAYE tax that was remitted ( $R=-0.017$ ) as well as with the PAYE pattern of fillings of the companies ( $R=-0.112$ ) at 5% level. The study concludes that there are no differences between educated and non-educated taxpayers in terms of their PAYE remittance and filling patterns. The study also concludes that taxpayer education does not have a significant influence on the tax compliance behaviour of manufacturing firms in Kenya. The study recommends the need for the Kenya Revenue Authority to channel its focus of taxpayer education to either small businesses or the individual taxpayers since as the results show taxpayer education for medium-sized companies falling within the Medium Taxpayers Office (MTO) does not influence tax compliance.

## TABLE OF CONTENTS

<b>DECLARATION .....</b>	<b>ii</b>
<b>ACKNOWLEDGEMENTS .....</b>	<b>iii</b>
<b>DEDICATION .....</b>	<b>iv</b>
<b>ABSTRACT.....</b>	<b>v</b>
<b>LIST OF TABLES .....</b>	<b>ix</b>
<b>DEFINITION OF KEY TERMS.....</b>	<b>xi</b>
<b>CHAPTER ONE: INTRODUCTION .....</b>	<b>1</b>
1.1 Background of the Study.....	1
1.2 Statement of the Problem.....	4
1.3 Objectives of the Study .....	5
1.4 Research Hypotheses .....	6
1.5 Significance of the Study .....	6
<b>CHAPTER TWO: LITERATURE REVIEW .....</b>	<b>7</b>
2.1 Introduction.....	7
2.2 Fischer Tax Compliance Model .....	7
2.3 Relationship between Education and Tax Compliance.....	15
2.4 Summary of Literature .....	21
<b>CHAPTER THREE: RESEARCH METHODOLOGY.....</b>	<b>23</b>
3.1 Introduction.....	23
3.2 Research Design.....	23
3.3 Population and Sample.....	23
3.4 Data Collection.....	23
3.5 Data Analysis .....	24
<b>CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION.....</b>	<b>25</b>
4.1 Introduction.....	25
4.2 Descriptive Analysis .....	25
4.3 Univariate Analysis.....	32
4.4 Correlation Analysis.....	34
4.5 Regression Analysis.....	35
<b>CHAPTER FIVE: SUMMARY, CONCLUSION, AND</b>	
<b>RECOMMENDATIONS.....</b>	<b>37</b>
5.1 Summary of Findings.....	37

5.2	Conclusion.....	38
5.3	Recommendations .....	38
5.4	Limitations of the study .....	39
5.5	Suggesting for Further Research.....	39
	<b>REFERENCES.....</b>	<b>40</b>
	<b>APPENDICES.....</b>	<b>45</b>
	Appendix A: Questionnaire to Corporate Tax Managers.....	45
	Appendix B: Research Questionnaire .....	47



## LIST OF TABLES

Table 1:	Corporate Tax Departments .....	25
Table 2:	Number of Employees in the Corporate Tax Department.....	26
Table 3:	Level of Complexity of PAYE Income Tax System .....	26
Table 4:	Filling of PAYE Returns .....	26
Table 5:	Frequency of PAYE Income return filling .....	27
Table 6:	Employee Training on PAYE return filling .....	27
Table 7:	Mode of Training.....	27
Table 8:	Level of Satisfaction.....	28
Table 9:	Frequency of PAYE tax remittance.....	28
Table 10:	Training on PAYE remittance dates .....	29
Table 11:	Percentage of PAYE remitted late over the last five years.....	29
Table 12:	Change Remittance Dates.....	29
Table 13:	Audit .....	30
Table 14:	Percentage of penalty raised .....	30
Table 15:	Extent of Ability .....	31
Table 16:	Level of Knowledge on PAYE Enforcement Rules .....	31
Table 17:	Descriptive Statistics.....	31
Table 18:	Differences in the mean of remittance and filling patterns.....	33
Table 19:	$\chi^2$ test for PAYE remittance patterns .....	34
Table 20:	$\chi^2$ test for PAYE filling patterns.....	34
Table 21:	Correlation Matrix .....	35
Table 22:	Effects of Taxpayer Education on Tax Remittance .....	35
Table 23:	ANOVA for Tax Remittance Model.....	35
Table 24:	Coefficients for Tax Remittance Model .....	36

Table 25:	Effects of Taxpayer Education on Tax Filling.....	36
Table 26:	ANOVA for Tax Filling Model.....	36
Table 27:	Coefficients for Tax Filling Model.....	36

## DEFINITION OF KEY TERMS

- Educated taxpayer** This is a taxpayer that has been trained by the Kenya Revenue Authority personnel in any of the monthly trainings organized by KRA for all new taxpayers.
- Non-educated taxpayer** This is a taxpayer that has not been trained by the Kenya Revenue Authority personnel in any of the monthly trainings organized by KRA for all new taxpayers.
- Tax compliance** This means adhering to the tax laws of a given country, in this case the tax laws of Kenya regarding PAYE.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

This section presents a background on the concept of tax compliance as well as the role that the Kenya Revenue Authority plays in enhancing tax compliance in Kenya.

#### **1.1.1 Concept of Tax Compliance**

Taxpayers' behavior towards tax system has evoked great attention among many Revenue Authorities in the World especially in Developed Countries. However, it is debatable on what has been done towards the study of taxpayers' behavior towards tax system in developing countries (Lumumba et al., 2010). According to Brown and Mazur (2003), tax compliance is multi-faceted measure and theoretically, it can be defined by considering three distinct types of compliance such as payment compliance, filing compliance, and reporting compliance. Organisation for Economic Cooperation and Development (2001) advocates dividing compliance into categories in considering definitions of tax compliance. These categories are administrative compliance and technical compliance where the former refers to complying with administrative rules of lodging and paying otherwise referred to as reporting compliance, procedural compliance or regulatory compliance and the latter refer to complying with technical requirements of the tax laws in calculating taxes or provisions of the tax laws in paying the share of the tax.

Alm (1991) defined tax compliance as the reporting of all incomes and paying of all taxes by fulfilling the provisions of laws, regulations and court judgements. Another definition of tax compliance is a person's act of filling the Income Tax Form, declaring all taxable income accurately, and disbursing all payable taxes within the stipulated period without having to wait for follow-up actions from the authority

(Singh, 2003). Roth et al. (1989), explained that taxpayers need to prepare all the relevant information in the Income Tax Form within the period given, and the form must report accurate tax liability in accordance with the needs of laws, regulations, and court judgements. Those who fail to adhere to taxation laws intentionally or otherwise shall be considered as having committed an offence.

Theoretically, views of the taxpayers and tax collectors are that tax compliance means adhering to the tax laws, which are different from one country to another. The goal of tax administration is to foster voluntary tax compliance (Silvani, 1992) and hence reduce tax gap (difference between taxes paid and owed for all taxes and all taxpayers) and "compliance gap." Tax compliance, according to Cobham (2005), is a problem to many countries as measured by tax to GDP ratio although it has been improving for many countries. For example, its one-third of GDP in rich countries; Latin America and the Caribbean - 17% of GDP and low-income countries (in Sub Saharan Africa) showed less than 15% to GDP (the recommended rate). It remains a big challenge to low income countries. This has promoted radical tax reforms in countries like Bolivia, Uruguay, Colombia, Jamaica and Spain with notable success (Bird & De Jantscher, 1992).

Jackson and Milliron (1986) listed 14 main factors that have influenced tax compliance as discussed by various researchers. These factors are age, gender, education, income, occupation or status, peers' or other taxpayers' influence, ethics, legal sanction, complexity, relationship with taxation authority (IRS), income sources, perceived fairness of the tax system, possibility of being audited and tax rate. Various researchers have listed factors that influenced tax compliance such as demographic,

income, compliance cost, and tax agents (Mohani, 2003), in addition to moral or ethical factors (Singh, 2003; Kasipillai et al., 2003).

Other researchers (Sour, 2002; Keller, 1997; Trivedi, 1997; Hamm, 1995; Chang et al., 1987) listed enforcement element factors (such as penalty, audit, and tax rates) as having a great influence on tax compliance behaviours. Tax compliance behaviours of a taxpayer usually differ from the compliance behaviours estimated in economics models. Taxpayers are greatly influenced by other taxpayers. Besides, the rate and quality of audit will also influence tax compliance behaviours of a taxpayer (Trivedi, 1997). Tax compliance problem is also serious in other countries. For instance, of the 117 million Income Tax Forms returned in the US in April 1995, 8.3 percent had not accurately declared their tax liabilities. In addition, 7 million, or 5.6 percent did not return the Income Tax Form (Hamm, 1995).

### **1.1.2 Role of the Kenya Revenue Authority on Tax Compliance**

In the bid to educate both existing and potential taxpayers, the Kenya Revenue Authority has a unit known as Taxpayer Services (KRA, 2007). The unit endeavors to conduct education programs for individuals and businesses that will cover basic information with respect to all taxes; issue simplified publications that contain information on all taxes administered by KRA; issue media releases and compliance publications that explain new procedures and requirements in a simplified manner; and increase interaction with stakeholders, business and professional associations in order to obtain their opinion, regarding the quality of our services with a view to further improvement (KRA Website, 2011).

The main objectives of the unit are to educate taxpayers on their rights and obligations and to create tax awareness so as to enhance voluntary compliance with the tax laws ; as well as, to broaden the tax base and widen the tax net by recruitment of taxpayers through education. Taxpayer Education Services seek to educate newly registered taxpayers through seminars held on monthly basis. The unit holds seminars and workshops for existing taxpayers on a proactive or reactive basis (KRA Website, 2011).

The purpose of Kenya Revenue Authority is assessment, collection, administration and enforcement of tax laws with professionalism governed by integrity and fairness (CIAT). To achieve this purpose, KRA is divided into regions such as North Region, Rift Valley Region, Western Region, Southern Region and Central Region and departments such as Customs Services Department, Domestic Services Department, Road Transport Department and Support Services Department. KRA administers different types of taxes under different Laws (Acts) such as Income Tax, Value Added Tax, Custom duties and Excise Tax among many others. Hence, KRA is supposed to ensure taxpayers comply with the respective tax laws (Lumumba *et al.*, 2010).

## **1.2 Statement of the Problem**

Studies on tax compliance have been carried out since the 60's. It has been studied thoroughly by academics, professionals and government agencies especially in the United States and other western countries (Siti, 1994). Research on tax compliance has been done in various fields such as accountancy, economics, criminal law, psychology, and sociology (Fischer, *et al.*, 1992).

Kenya is ranked among low-income countries or low compliance countries with hard task of ensuring efficient and effective tax administration. Administration of tax in Kenya is by Kenya Revenue Authority established through an Act of Parliament on July 1st 1995 (Cap 469). “Kenya Revenue Authority is supposed to promote compliance with Kenya’s tax ensure responsible enforcement by highly motivated and professional staff thereby maximizing revenue collection at least possible cost for the social-economic well being of Kenyans” (CIAT, 2006).

Apart from unpublished study by Simiyu (2003) whose objective was to identify factors influencing taxpayers’ voluntary compliance among local authorities, the researcher is not aware of any other study that has been carried out to establish how taxpayer education influences tax compliance. Lumumba *et al.*, (2010) did a study on taxpayers’ attitudes and tax compliance behavior in Kenya. They recommended a need for more literacy campaigns [education] in order to improve the taxpayer attitudes towards tax hence improve tax compliance. KRA performs monthly taxpayer education to all newly registered taxpayers in a bid to improve tax compliance. Whether the increased taxpayer education has led to improved tax compliance has not been captured in any empirical study. This study therefore sought to establish the influence of taxpayer education in Kenya on tax compliance with a specific emphasis on the compliance on Pay-As-You-Earn (PAYE) form of tax.

### **1.3 Objectives of the Study**

- i. To determine whether differences in PAYE filling patterns are related to taxpayer levels of education.



- ii. To determine whether differences in PAYE remittance patterns are related to taxpayer levels of education.

#### **1.4 Research Hypotheses**

**Hypothesis 1:** There is no significant difference in the PAYE filling patterns between taxpayers with different levels of tax education.

**Hypothesis 2:** There is no significant difference in the PAYE remittance patterns between taxpayers with different levels of tax education.

#### **1.5 Significance of the Study**

This study will be invaluable to a number of stakeholders. First, the management of Kenya Revenue Authority will find this study useful as a point of reference as far as assisting in decision making regarding the relevance of taxpayer education.

If the recommendations of this study are put into practice by the relevant authorities, the country stands to benefit a great deal from an improved tax reforms in terms of instituting better reforms for better revenue performance.

The students, researchers, policy makers, scholars and the academicians will find this study a useful guide in as far as further discussions or studies on the same are concerned. It will therefore form a basis of further research from interested individuals on the subject of taxpayer education and compliance.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

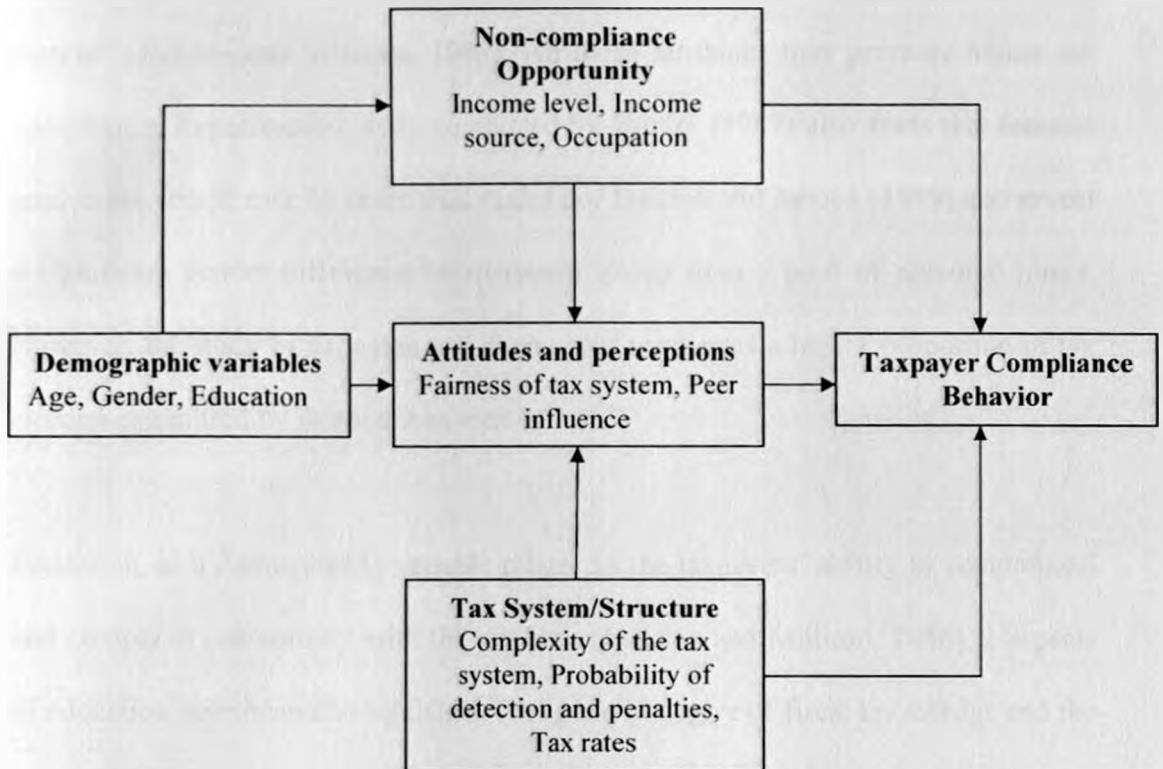
This chapter presents a review of literature. First, the Fischer's tax compliance model is presented in depth. This is followed by a review on tax compliance. Lastly, a review on the impact of tax education or knowledge on tax compliance is presented.

### **2.2 Fischer Tax Compliance Model**

Jackson and Milliron (1986) carry out a comprehensive review of the tax compliance literature and identify 14 key factors that have been studied by researcher on tax compliance. These factors are categorized by Fischer and associates (Fischer et al., 1992) into 4 groups in his expanded model (Fischer Model): (i) demographic (e.g.- age, gender and education) (ii) noncompliance 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. The Fisher model is illustrated in Figure 1 and elaborated in the following sections.

#### **2.2.1 Demographic Variables**

The relationship between demographic variables and tax compliance has long been of interest (Tittle, 1980). 3 major personal characteristics for which there is evidence of a relationship are age, gender and education (Jackson and Milliron, 1986). The Fischer model suggests that demographic variables indirectly affect taxpayer compliance by their impacts on noncompliance opportunities and attitudes and perceptions.



**Figure 1: Fischer et al. (1992) tax compliance model**

A common demographic variable is the taxpayers' age. A positive link between age and taxpayer compliance is reported (Jackson and Milliron, 1986). In addition, data coming from the taxpayer compliance measurement program (TCMP) of the internal revenue service also indicate that "noncompliance is significantly less common and of lower magnitude among householders in which either the head or the head's spouse is over age 65" (Andreoni et al., 1998). In general, young taxpayers are more willing to take risks and are less sensitive to sanctions. Based on the 1997 Arkansas tax penalty amnesty program, Ritsema et al. (2003) also find that age is a factor for intentional evaders, with younger taxpayers less compliant.

Early research (Tittle, 1980) testing the tax compliance level of males versus females reports that females are more likely to tax compliance. Traditionally, "females have

been identified with conforming roles, moral restraints and more conservative life pattern” (Jackson and Milliron, 1986). All these attributes may promote higher tax compliance. Experimental study conducted by Baldry (1987) also finds that females tend to tax compliance by more than males do. Jackson and Jaouen (1989) also reveal a significant gender difference by treatment group from a pool of potential jurors. However, the study by Houston and Tran (2001) indicates a higher proportion of tax evasion committed by women than men.

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). 2 aspects of education have been distinguished: “the general degree of fiscal knowledge and the degree of knowledge involving evasion opportunities” (Groenland and Veldhoven, 1983). This knowledge is considered to be important for attitudes towards tax compliance. Song and Yarbrough (1978) have included education as a background variable in their experiment.

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. The study conducted by Chan et al. (2000) reveal that higher education is directly linked to an increased likelihood of tax compliance. 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.

### **2.2.2 Non-Compliance Opportunity**

In the Fischer model, noncompliance opportunity can affect taxpayer compliance directly through income level, income source and occupation and indirectly through attitudes and perceptions. 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 noncompliance 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. Surveys by Aitken and Bonneville (1980) and Groenland and Voldhoven (1983) find that taxpayers who are self employed are more likely to commit various forms of tax non-compliance. Houston and Tran (2001) also reveal a significantly higher proportion of tax evasion

among respondents who are self-employed. In addition Vogel (1974) also reveals that 39% of Swedish respondents who acknowledged receiving additional income that was not taxable at the source also committed evading taxes in comparison with 21% of those acknowledging no such additional income. Based on the poll tax in Tanzania, Fjeldstad and Semboja (2001) find support for differences in opportunities for tax noncompliance. "Employees paying their head-tax through a tax withholding system have fewer opportunities to evade than the self-employed" (Fjeldstad and Semboja, 2001). Richardson (2006) also reports that income source is significantly related to tax evasion.

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. In addition, TCMP data also indicate that "among all sole proprietors those who engaged in sales from fixed locations (car dealerships, stores, restaurants etc) understated taxes by the greatest percentage" (Andreoni et al., 1998). The Fischer model suggests 2 major considerations for altering taxpayers' attitudes and perceptions to tax compliance are the fairness of the tax system and peer influence.

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 noncompliance. 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, p. 137). 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. Based on a quasi-experiment with pre-testing and posttesting of 2 student groups, Eriksen and Fallan (1996) also reveal that an important means of ensuring tax compliance is to provide more tax knowledge so as to improve people’s perception of the fairness of the tax system. The study conducted by Richardson (2006) also indicates that perceived fairness of tax system is significantly related to tax evasion.

Peers are usually referred to taxpayers’ associates and include friends, relatives and colleagues (Jackson and Milliron, 1986). The peer influence is reflected in an individual’s expectations in relation to the approval or disapproval of that tax noncompliance behavior. Grasmick and Scott (1982) indicate that respondents with peers who practice tax noncompliance are more likely to commit as well. The survey conducted by Mason et al. (1975) finds that people committing tax noncompliance are more likely to discuss tax matters with their peers. The study conducted by Chan et al. (2000) also reveals that taxpayers may still commit noncompliance so long as this noncompliance is consistent with in-group expectations and norms.

It is widely acknowledged that the extent of tax compliance in many developing countries has been decreasing. The underdeveloped tax system/structure is one of the major causes for this phenomenon. In the Fischer Model, the effectiveness of tax system is affected by complexity of tax system, probability of detection and penalties and tax rates. 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. Milliron (1985) also finds that complexity has a significant effect on tax compliance decision. Richardson (2006) also reports that tax law complexity is significantly related to tax evasion.

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.

The third major construct of tax system/structure in the Fischer model is tax rates. Empirical evidence has suggested that progressive versus flat tax rate is the significant structural variable in association with tax compliance behavior (Clotfelter, 1983). Research using experiments typically find that high tax rates are linked to less tax

compliance (Friedland et al., 1978). Using the audited tax returns for individual taxpayers in Jamaica, Alm et al. (1993) also reveal that the probability of underreporting and the level of underreporting are positively related to the marginal tax rate.

### **2.3 Relationship between Education and Tax Compliance**

The influence of knowledge on compliance behaviours has been proven in various researches. Groenland & Veldhoven (1983) categorised knowledge in this context into two aspects, namely knowledge through common or formal education usually received by people and knowledge towards the opportunity to evade tax. The level of education received by taxpayers is an important factor that contributes to the understanding about taxation especially regarding the laws and regulations of taxation (Eriksen & Fallan, 1996). As one of the factors in tax compliance, knowledge has a very close relationship with taxpayers' ability to understand the laws and regulations of taxation, and their ability to comply (Singh, 2003).

Knowledge as one of the factors in compliance is related to the taxpayers' ability to understand taxation laws, and their willingness to comply (Viswanathan, 1992). The aspect of knowledge that relates to compliance is the general understanding about taxation regulations and information pertaining to the opportunity to evade tax (Tan & Chin-Fatt, 2000; Eriksen & Fallan, 1996; Harris, 1989). A question that has been raised by previous researchers (Singh, 2003; Tan & Chin-Fatt, 2000; Eriksen & Fallan, 1996; Harris, 1989; Groenland & Veldhoven, 1983) is whether enhancement in the knowledge will propel tax evasion.

Attitude towards tax compliance can be improved through the enhancement of taxation knowledge (Eriksen & Fallan, 1996). When a taxpayer has a positive attitude towards tax, this will reduce his or her inclination to evade tax payment. With the transition from OAS to SAS, knowledge has been conceded as a crucial factor to enhance Malaysian taxpayers' understanding of the new system, which in turn will help implement it smoothly.

Taxation knowledge is necessary to increase public awareness especially in areas concerning taxation laws, the role of tax in national development, and especially to explain how and where the money collected is spent by the government (Mohani, 2003). More importantly, it is necessary that current and future taxpayers are exposed to the roles that they could play in developing the country. This exposure could be given through seminars, dialogue sessions, or collaboration with the Ministry of Education to introduce the subject of Taxation at secondary schools.

Although too many countries seem to do their best to make it difficult for taxpayers to comply with the law. The law is complex, contradictory, hard to interpret, and even hard to find: the necessary forms are hard to locate, forms and payments have to be submitted at inconvenient times and places.

Citizens must have means to understand what is required of them in order to comply with the law. At a minimum, tax authorities must provide their citizens with appropriate avenues to comply. This may entail such program as developing clear forms and instructions; providing points of contact to citizens so that they can request and secure information about their duty; and developing educational programmes to

inform existing and future taxpayers.(Richard M. Bird and Milka Casanegra de Janstsch,1992).

Smith (1976) notes that, "by subjecting the people to the frequent visits and the odious examination of the tax gatherers, it may expose them to much unnecessary trouble, vexation, and oppression; and though vexation is not, strictly speaking, expense, it is certainly equivalent to expense at which every man would be willing to redeem himself from it." Smith's comment makes clear that compliance costs can have elements of time, mental anguish, and money.

According to Sandford, (1995) compliance costs are costs incurred by taxpayers in meeting the requirements laid on them by the tax law and the revenue authorities. They are the costs over and above the actual payment of tax and over and above any distortion costs inherent in the nature of the tax; costs which would disappear if the tax was abolished. This definition clearly includes costs associated with maintaining tax records, learning about tax law, preparing the return, and sending the return to the tax authorities. Almost all studies of compliance cost include, at a minimum, these four elements. A more comprehensive measure of compliance costs would include expenditures of time or money by the taxpayer solely to avoid or evade taxes. Tax avoidance is legal behavior that reduces taxes. Tax evasion is illegal behavior that involves not paying taxes legally or illegally.

Administrative costs generally refer to the expenses incurred directly by the government in collecting taxes. These costs are ultimately borne by individuals. Although Government costs appear explicitly in budgets, measuring the

administrative costs of a tax system is not always simple. Relevant budgetary costs of the tax collection agency should be included as administrative costs. However, for some purposes, the question of interest is the cost of a particular set of taxes, rather than the entire tax system.

Facilitating compliance involves such elements as improving services to taxpayers by providing them clear instructions, understandable forms, and assistance and information as necessary. Monitoring compliance requires the establishment and maintenance of taxpayer current accounts and management information systems covering both ultimate taxpayers and third-party agents, such as banks, involved in the tax system as well as appropriate and prompt procedures to detect and follow up on non-filers and delayed payments. Improving compliance requires a judicious mix of both these measures as well as additional measures to deter non-compliance such as establishing a reasonable risk of detection and the effective application of penalties. The ideal approach is to combine these measures so as to maximize their effect on compliance. For example, when introducing a new tax, emphasis should first be given to assisting taxpayers to comply with the new tax, then to detecting non-compliance, and finally to applying penalties. As a rule, successful reform strategies require an appropriate mix of all these approaches.

In this respect, it is important to emphasize that improving tax compliance is not the same as discouraging non-compliance. This perhaps paradoxical conclusion emerges from the numerous sociological and psychological studies of taxation that have been carried out in recent years, based largely on experimental and survey evidence (Slemrod, 1992). While most tax compliance in most countries most of the time can

perhaps best be characterized as "quasi-voluntary compliance" (Levi, 1988), because taxpayers have little choice as to whether their income sources have tax withheld or not, there nonetheless appear to be two distinct groups of taxpayers in any country at any time: those who comply and those who do not - almost irrespective of whether they can get away with it or not.

Some compliers comply not just because they do not have the opportunity to evade or because they are exceedingly risk-averse but because they think it is the right thing to do, and, importantly, they think other "right-thinking" people are also complying. By definition, there are more such people in "high-compliance" countries than in "low-compliance" countries. Even in the latter, however, it is a gross oversimplification to pretend that every taxpayer views the decision as to whether to pay his taxes as a gamble to be decided independently of his membership in and loyalty to the community. Some always pay; some always cheat; and some cheat when they think they can get away with it. An important task of tax administration is to prevent the mix from "tipping" in the direction of pervasive non-compliance.

The very limited international comparisons that can be made on the basis of existing literature suggest that considerable care must be exercised in extrapolating results from one context to another. In particular, while non-compliers may be similar in some respects everywhere, both the size and the nature of the factors inducing compliers to comply may be quite different in different countries. Aspects that may differ from country to country include the value attached to "fairness" and its meaning, the degree of deference to authority and the legitimacy attached to that authority, and the extent to which contributing to the finance of government activities

is seen as socially as opposed to privately, as in the economic model of tax evasion, discussed below desirable.

Increased enforcement actions (like amnesties - whether viewed separately or jointly from increased enforcement) may have quite different results on "compliers" than on "non-compliers." So may increased efforts at public education about taxpayer rights and obligations or increased efforts by tax authorities to provide improved service to taxpayers. Such policies may change attitudes, although not all changes for all groups will necessarily be in the desired direction. Nonetheless, a good case can generally be made that the "optimal" enforcement strategy is likely to include both rewards (support) for compliers and penalties for non-compliers.

In addition, while there are few studies of private compliance costs in developing countries, the evidence from studies in developed countries (Sandford, 1995) is that these costs are larger than public costs, that they are largely substituted for public costs, and that their incidence can be quite different from those of the taxes themselves. The complexity and cumbersome administrative methods employed with respect to some taxes found in some developing countries - for example, stamp taxes and the variety of minor excises - suggest that compliance costs may well be very high in such countries. Moreover, compliance costs have been found to be particularly sensitive to the stability of the tax legislation and to such changes in the external environment as inflation.

All these factors are more important in the "low compliance" environment of most Latin American and Caribbean countries than in the "high compliance" environment

of the few developed countries where such costs have been studied. Low compliance may thus at least to some extent be a function of high compliance costs, as well as of such more basic problems as lack of state legitimacy, inadequate connection between taxes and benefits, and perceptions of tax fairness.

The taxpayer's decision to comply, or not comply, with his fiscal obligations is of course the subject of a large formal theoretical literature on the economics of tax evasion (Cowell, 1990; Slemrod and Yitzhaki, 2002). While some progress has been made both in incorporating the "strategic" aspects of the evasion decision in a game-theoretic framework and in modeling it in principal-agent terms, much remains to be done before the results of such analysis have much to say about the real world "tax game" in developing countries. For example, most literature on tax evasion assumes that tax officials are completely honest.

If not all officials are honest (and in the expected utility framework it is not clear why they should be expected to be), the game is very different than that usually modeled. "Leakage costs," as Shaw (1981) calls that portion of tax revenues that flows into the pockets of officials rather than into the coffers of government, may simply be transfers in economic terms, but they may nonetheless result in significant distortions as new taxes are invented and tax rates increased in an attempt to make up the revenue loss.

## **2.4 Summary of Literature**

In addition to this serious gap in the existing formal analysis, the literature has not as yet managed to model very well either the long-term, repetitive nature of the tax game or the role of "norms" in determining how people play the game. Consideration of the



temporal dimension of tax administration emphasizes the importance both of the interaction of officials and taxpayers and of changes in "tax technology" and taxpayer attitudes to government. The problem of tax administration reform is essentially how to alter the outcomes of administrative effort by appropriate investment in developing new legal and organizational frameworks, adopting new technology (computerization), and altering the allocation of administrative resources. Finally, in recent years virtually all attempts to reform tax administration have centered on some form of computer application. Certainly, it is difficult to conceive of a tax administration that can perform its tasks efficiently without using some form of computer technology, Musgrave. (1987).

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter describes the research design and methodology involved in the study. The early part describes the survey method used, the population and sample. Data collection method and data analysis techniques are also discussed in the latter part of the chapter.

### **3.2 Research Design**

This study used a longitudinal survey design. A longitudinal survey is one that collects data from the same sample elements on multiple occasions over time (Lynn, 2009). They have considerable analytical advantages over one-time or cross-sectional surveys. Given that this study sought to establish the impact of taxpayer education on tax compliance in Kenya, the longitudinal survey was the best suited for the study.

### **3.3 Population and Sample**

The population of this study was the taxpayers in the manufacturing sector under medium taxpayers' office (MTO). There were 64 such taxpayers according to KRA records. Using Mugenda and Mugenda (2003) guideline on estimating the sample size, the sample for the study was 55 firms. The sample period was June 2004-June 2011, a period of 8 years.

### **3.4 Data Collection**

Data collected was both primary and secondary. The primary data was used to establish the taxpayers level of education. This was done by contacting the companies through telephone calls/interviews as well as through physical interviews. They were

asked on whether and how many times they have sent their staff that deal with PAYE for training by KRA.

The secondary data was gathered from the Domestic Taxes Department of KRA in Nairobi. The specific data was on the PAYE filling patterns and PAYE remittance patterns for the period under study.

### 3.5 Data Analysis

The collected data was entered into the Statistical Package for Social Sciences (SPSS) version 19. The data was analysed using cross-tabulations. The descriptive statistics within the cross-tabulation output as well as the chi-square tests were used to interpret the results. The p-values show whether any observed differences between the different taxpayer education levels compliance are significant or not. Regression analysis was also run to show the impact of taxpayer education on tax compliance in order to accept or reject the hypotheses. The following models were used:

$$\text{Filing} = \alpha + \beta_1 \text{Edu} + \beta_2 \text{Controls} + \epsilon \quad \dots\dots\dots (1)$$

$$\text{Remittance} = \alpha + \beta_1 \text{Edu} + \beta_1 \text{Controls} + \epsilon \quad \dots\dots\dots (2)$$

Where

Filing            measures compliance by PAYE filing rates.

Remittance    measures tax compliance through PAYE remittance rates

Edu              measures taxpayer education levels (from the questionnaires)

Controls        measures the size of the company (a control variable) as the natural logarithm of total assets

## **CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION**

### **4.1 Introduction**

This chapter presents the results of the study. The chapter is organised as follows. First, descriptive analysis results are shown in 4.2. Then the correlation results are shown in 4.3 followed by regression analysis results in 4.4.

### **4.2 Descriptive Analysis**

The respondents were asked to state the number of employees they had in their companies. The study found out that they all had more than 50 employees. The respondents were asked whether they had corporate tax departments in their company's: 20 percent had, 73.3 percent did not have whereas 6.7 percent of them did not respond. The results of the study are as shown in Table 1.

**Table 1: Corporate Tax Departments**

	<b>Frequency</b>	<b>Percent</b>
Yes	3	20.0
No	11	73.3
Missing	1	6.7
<b>Total</b>	<b>15</b>	<b>100.0</b>

Those companies that had corporate tax departments were asked to state the number of employees they had in the department: the study found out that 6.7 percent had two employees, 13.3 percent had five employees whereas 80 percent did not respond. The result of the study is tabulated below:

**Table 2: Number of Employees in the Corporate Tax Department**

	<b>Frequency</b>	<b>Percent</b>
2.00	1	6.7
5.00	2	13.3
Missing	12	80.0
<b>Total</b>	<b>15</b>	<b>100.0</b>

The respondents were further asked to Rank their current PAYE Income Tax System in terms of complexity. The study found out that 26.7 percent were less complex, 60 percent were appropriate, 13.3 percent were found to be very complex. The result of the study is tabulated below;

**Table 3: Level of Complexity of PAYE Income Tax System**

	<b>Frequency</b>	<b>Percent</b>
Less complex	4	26.7
Appropriate	9	60.0
Very complex	2	13.3
<b>Total</b>	<b>15</b>	<b>100.0</b>

The respondents were asked how their respective company's filed their PAYE returns. The study found out that 13.3 percent of the companies filed theirs online while 86.7 percent of them filed theirs usually at KRA. The result of the study is as shown in the table below:

**Table 4: Filling of PAYE Returns**

	<b>Frequency</b>	<b>Percent</b>
Online	2	13.3
Usual	13	86.7
<b>Total</b>	<b>15</b>	<b>100.0</b>

A study on the frequency of how the companies filed their PAYE income returns found out that 80 percent of them filed their PAYE income returns before due date

while 20 percent of the companies filed theirs on the due date as shown in the table below:

**Table 5: Frequency of PAYE Income return filling**

	<b>Frequency</b>	<b>Percent</b>
Before	12	80.0
On	3	20.0
<b>Total</b>	<b>15</b>	<b>100.0</b>

The respondents were asked whether their employees had been trained by KRA or their respective auditors on filing of PAYE return. The study found out that 73.3 percent had been trained while 26.7 had not been trained. The result of the study is tabulated below:

**Table 6: Employee Training on PAYE return filling**

	<b>Frequency</b>	<b>Percent</b>
Yes	11	73.3
No	4	26.7
<b>Total</b>	<b>15</b>	<b>100.0</b>

A study on the mode of training used by KRA that the respondents found more educative showed that 80 percent of the respondents found taxpayer’s sensitizations organized by KRA occasionally to be more educative whereas 20 percent of them did not respond. The result of the study is tabulated below:

**Table 7: Mode of Training**

	<b>Frequency</b>	<b>Percent</b>
Sensitization	12	80.0
Missing	3	20.0
<b>Total</b>	<b>15</b>	<b>100.0</b>

The respondents were further asked whether they were satisfied with the training services provided by KRA on filing of PAYE returns considering the taxes paid. 73.3 percent of them were partially satisfied with the training services provided whereas 26.7 percent of them were satisfied with the training services. The result of the study is tabulated below:

**Table 8: Level of Satisfaction**

	<b>Frequency</b>	<b>Percent</b>
Partially Sat	11	73.3
Satisfied	4	26.7
<b>Total</b>	<b>15</b>	<b>100.0</b>

A study on the frequency of the company’s PAYE tax remittance found out that 80 percent of the companies remitted their PAYE tax before due date, 13.3 percent remitted theirs on the due date while 6.7 percent of them remitted theirs after due date. The table below tabulates the results of the study:

**Table 9: Frequency of PAYE tax remittance**

	<b>Frequency</b>	<b>Percent</b>
Before	12	80.0
On	2	13.3
After	1	6.7
<b>Total</b>	<b>15</b>	<b>100.0</b>

The respondents were further asked whether their respective companies had been trained by KRA or their company auditors on PAYE remittance dates. The study found out that 73.3 percent of them had been trained while 26.7 of them had not been trained as tabulated below.

**Table 10: Training on PAYE remittance dates**

	<b>Frequency</b>	<b>Percent</b>
Yes	11	73.3
No	4	26.7
<b>Total</b>	<b>15</b>	<b>100.0</b>

A study on the percentage of PAYE remitted late over the last five years shows that 13.3 percent of the companies were found to have remitted 5 percent. 6.7 percent of them remitted more than 20 percent while 80 percent did not give a response. The following table tabulates the results:

**Table 11: Percentage of PAYE remitted late over the last five years**

	<b>Frequency</b>	<b>Percent</b>
5	2	13.3
>20	1	6.7
Missing	12	80.0
<b>Total</b>	<b>15</b>	<b>100.0</b>

When asked whether they felt that KRA should change PAYE remittance dates so as to be in line with the other monthly taxes, 46.7 percent of the respondents wanted it changed while 53.3 percent of them wanted the dates to remain the same. The table below tabulates the results:

**Table 12: Change Remittance Dates**

	<b>Frequency</b>	<b>Percent</b>
Yes	7	46.7
No	8	53.3
<b>Total</b>	<b>15</b>	<b>100.0</b>

A study on whether the companies had ever been audited by KRA found out that 80 percent of the companies had been audited, 13.3 percent had not been audited whereas 6.7 percent did not respond. The result of the study is tabulated below:



**Table 13: Audit**

	Frequency	Percent
Yes	12	80.0
Know	2	13.3
Missing	1	6.7
<b>Total</b>	<b>15</b>	<b>100.0</b>

Those companies that had been audited were asked the amount of penalties that had been raised. The study found out that the penalties ranged from 3200-131994.

The respondents were asked the percentage of the penalty raised compared to the principal tax. 13.3 percent of them had 5 percent of the penalty raised, 6.7 percent had 10 percent of the penalty raised, another 6.7 percent had more than 20 percent of the penalty raised while 73.3 percent of them gave no response. The result of the study is tabulated below:

**Table 14: Percentage of penalty raised**

	Frequency	Percent
5	2	13.3
10	1	6.7
>20	1	6.7
Missing	11	73.3
<b>Total</b>	<b>15</b>	<b>100.0</b>

The respondents were further asked to what extent they thought the employees working in the tax department were able to handle queries raised by the KRA tax auditors. The study found out that 13.3 percent were moderate, 46.7 percent were able, 33.3 percent were very able while 6.7 percent gave no response. The table below shows the result of the study:

**Table 15: Extent of Ability**

	Frequency	Percent
Moderate	2	13.3
Able	7	46.7
Very able	5	33.3
Missing	1	6.7
<b>Total</b>	<b>15</b>	<b>100.0</b>

Lastly, the respondents were asked to state to what extent the employees working under the tax department were conversant with the then PAYE enforcement rules. The study found out that 40 percent were moderate extent, 46.7 percent great extent, 6.7 percent very great extent whereas 6.7 percent gave no response. The result of the study is tabulated below.

**Table 16: Level of Knowledge on PAYE Enforcement Rules**

	Frequency	Percent
Moderate	6	40.0
Great	7	46.7
Very great	1	6.7
Missing	1	6.7
<b>Total</b>	<b>15</b>	<b>100.0</b>

The remittances of all the companies ranged from a minimum of Sh. 265,192 to a maximum of 61,203,250 with a mean of Sh.12,940,562 and a standard deviation of Sh.15, 592,116.09. The fillings pattern of the companies ranged from a minimum of four months a year to 12 months a year with a mean of 9.6923 months and a standard deviation of 2.75029 months. This is shown in the table below:

**Table 17: Descriptive Statistics**

	Minimum	Maximum	Mean	Std. Deviation
Remittance	265192.00	61203250.00	12940562.0000	15592116.08706
Filling	4.00	12.00	9.6923	2.75029

### **4.3 Univariate Analysis**

A univariate analysis was performed in order to establish whether there were significant differences in PAYE remittances and PAYE filing patterns for the companies that had been trained by the Kenya Revenue Authority on tax issues and those that had not undergone such training.

Table 18 shows that the Levene's test was insignificant for both the PAYE remittance and filing. Thus, there were no differences between educated taxpayers and non-educated taxpayers on the PAYE remittance and filing patterns.

**Table 18: Differences in the mean of remittance and filling patterns**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Remittance	Equal variances assumed	.052	.824	.057	11	.955	717862.95455	12516841.53325	-26831519.51136	28267245.42045
	Equal variances not assumed			.078	2.027	.945	717862.95455	9147713.21184	-38148047.52396	39583773.43305
Filling	Equal variances assumed	.181	.679	.373	11	.716	.81818	2.19435	-4.01155	5.64792
	Equal variances not assumed			.376	1.401	.756	.81818	2.17765	-13.66769	15.30405

The  $\chi^2$  test for differences between educated and non-educated taxpayers for PAYE remittance was insignificant at 5% level as shown in table 19.

**Table 19:  $\chi^2$  test for PAYE remittance patterns**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.000 <sup>a</sup>	12	.369
Likelihood Ratio	11.162	12	.515
Linear-by-Linear Association	.004	1	.952
N of Valid Cases	13		

The  $\chi^2$  test for differences between educated and non-educated taxpayers for PAYE filling patterns was insignificant at 5% level as shown in table 20.

**Table 20:  $\chi^2$  test for PAYE filling patterns**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.879 <sup>a</sup>	5	.163
Likelihood Ratio	7.343	5	.196
Linear-by-Linear Association	.150	1	.699
N of Valid Cases	13		

#### 4.4 Correlation Analysis

The level of taxpayer training had a negative relationship with the amount of tax that was remitted ( $R=-0.017$ ). It also had a negative relationship with the pattern of fillings of the companies ( $R=-0.112$ ). These results had no significance at 5 percent significance level. This is clearly depicted by the data on the table below.

**Table 21: Correlation Matrix**

		Trained	Remittance	Filling
Trained	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	15		
Remittance	Pearson Correlation	-.017	1	
	Sig. (2-tailed)	.955		
	N	13	13	
Filling	Pearson Correlation	-.112	-.453	1
	Sig. (2-tailed)	.716	.120	
	N	13	13	13

#### 4.5 Regression Analysis

From the table below, regression model of tax remittance explained 9.1%, measured by adjusted  $R^2$ . Regression model accounted for 0% of the variance in tax remittance.

**Table 22: Effects of Taxpayer Education on Tax Remittance**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.017	.000	-.091	16282999.82594

The table below shows the F ratio of 0.003 which was not significant at 5% level (Sig. =0.955). Since the regression is greater than the residual, it explained more on the tax remittance.

**Table 23: ANOVA for Tax Remittance Model**

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	8.721E11	1	8.721E11	.003	.955 <sup>a</sup>
Residual	2.916E15	11	2.651E14		
Total	2.917E15	12			

The independent variable was not significant at 5% level meaning that tax remittance was not influenced by level of taxpayer training. This is depicted in the table below:



**Table 24: Coefficients for Tax Remittance Model**

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	13768865.409	15132123.542		.910	.382
Trained	-717862.955	12516841.533	-.017	-.057	.955

From the table below, regression model of tax filling explained 7.7%, measured by adjusted R<sup>2</sup>. Regression model accounted for 1.2% of the variance in tax filling. This is shown in the table below:

**Table 25: Effects of Taxpayer Education on Tax Filling**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.112	.012	-.077	2.85460

The table below shows the F ratio of 0.139 which was not significant at 5% level (Sig. =0.716). Since the regression is less than the residual, it explained less on the tax filling. The table below tabulates this:

**Table 26: ANOVA for Tax Filling Model**

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1.133	1	1.133	.139	.716 <sup>a</sup>
Residual	89.636	11	8.149		
Total	90.769	12			

The independent variable was not significant at 5% level meaning that tax filling was not influenced by level of taxpayer training. This is depicted in the table below:

**Table 27: Coefficients for Tax Filling Model**

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	10.636	2.653		4.009	.002
Trained	-.818	2.194	-.112	-.373	.716

## CHAPTER FIVE: SUMMARY, CONCLUSION, AND RECOMMENDATIONS

### 5.1 Summary of Findings

This study intended to determine the effect of taxpayer education on tax compliance with a specific focus on PAYE tax remittance and filing patterns. The univariate analysis showed no statistical differences between educated and non-educated taxpayers in terms of their PAYE remittance and filing patterns. The Levene's test was insignificant for both the PAYE remittance and filing. The  $\chi^2$  test for differences between educated and non-educated taxpayers for PAYE remittance was insignificant at 5% level. Further, the  $\chi^2$  test for differences between educated and non-educated taxpayers for PAYE filing patterns was insignificant at 5% level.

The level of taxpayer training had a negative relationship with the amount of PAYE tax that was remitted ( $R=-0.017$ ) as well as with the PAYE pattern of fillings of the companies ( $R=-0.112$ ). These results were insignificant at 5% level. The regression model of PAYE tax remittance explained 9.1% measured by adjusted  $R^2$ . Regression model accounted for 0% of the variance in tax remittance. The F ratio of 0.003 was not significant at 5% level (Sig. =0.955). Tax education was insignificant at 5% level in the model meaning that tax remittance was not influenced by level of taxpayer training.

The regression model of PAYE tax filling explained 7.7% measured by adjusted  $R^2$ . The regression model accounted for 1.2% of the variance in PAYE tax filling. The F ratio of 0.139 was not significant at 5% level (Sig. =0.716). Further, taxpayer education was not significant at 5% level meaning that tax filling was not influenced by level of taxpayer training.



## **5.2 Conclusion**

The study concludes that there are no differences between educated and non-educated taxpayers in terms of their PAYE remittance and filing patterns. From these results, it does not matter whether the manufacturer has been trained by the Kenya Revenue Authority or not on tax issues. The PAYE remittance and filing patterns are independent of the status of taxpayer education.

The study also concludes that taxpayer education does not have a significant influence on the tax compliance behaviour of manufacturing firms in Kenya. It seems therefore that the PAYE remittance and filing patterns of mid-sized manufacturing firms – which are a measure of tax compliance – are unaffected by the taxpayer education provided by the Kenya Revenue Authority.

## **5.3 Recommendations**

The study recommends the need for the Kenya Revenue Authority to channel its focus of taxpayer education to either small businesses or the individual taxpayers since as the results show taxpayer education for mid-sized companies falling within the Medium Taxpayers Office (MTO) does not influence tax compliance.

The study also recommends that there is need for the Kenya Revenue Authority to improve its data capturing system as far as PAYE is concerned. As it currently stands, it is impossible to ascertain the penalties paid by late PAYE submissions since the remittance figures are whole figures that take into account the penalties and the PAYE.

#### **5.4 Limitations of the study**

The study had intended to use PAYE penalties as one of the variables constituting tax compliance. This was impossible as the PAYE data available did not separate penalties from the remittance. Thus the compliance was limited to PAYE remittance and PAYE filling patterns.

This study has also focused mainly on the manufacturing firms in the Medium Taxpayers Office. Thus the results are limited to the medium-sized firms in the manufacturing sector in Kenya and application of the same to other industries or firms should be approached with care.

#### **5.5 Suggesting for Further Research**

More research is needed in tax compliance in Kenya. Taxpayer education, which was initiated by the Kenya Revenue Authority to help improve on tax compliance seem not to have had a major effect. There is therefore need to carry out more research to establish the same for other classes of taxes or other industries. Secondly, there is need for more research to be done to establish the determinants of tax compliance of midium-sized companies in Kenya.

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APPENDIX

TABLE I. Characteristics of the experimental setup

Parameter	Value
Number of particles	1000
Simulation box size	1000 x 1000 x 1000
Time step	0.01
Temperature	1.0
Pressure	1.0
Energy	1.0
Angular momentum	0.0
...	...

## APPENDICES

### Appendix A: Questionnaire to Corporate Tax Managers

#### Introduction

The questionnaire is designed so as to facilitate effective answering and accuracy of responses. Absolute confidentiality is assured.

The information provided will not be distributed to any party and will be used, on a no names basis.

Please take the time to read the **guidance notes** prior to completion of the questionnaire. It is important that the information is accurate and included at the most appropriate location.

This questionnaire is designed to establish the relationship between PAYE filling patterns, PAYE remittance patterns and PAYE penalties with the taxpayers level of education..

The questionnaire has been divided into three sections. The section I establishes basic information regarding the company, the rest of the sections relate to each of the PAYE filling patterns, PAYE remittances and PAYE penalties with the taxpayers level of education. It is hoped to establish a relationship between the three PAYE parameters and the taxpayer's level of education.



The purpose of this is twofold. Firstly, it will enable us to identify the areas where taxpayers need tax education and the stage at which tax education needs to be introduced.

## Appendix B: Research Questionnaire

### SECTION I

THE PURPOSE OF THIS SECTION IS TO ESTABLISH THE PROFILE OF THE RESPONDENT COMPANY.

1. Name of the company.....

2. Number of years the company has been in existence.....

3. Number of employees?

Less than 10      (   )      11-25      (   )

26-50      (   )      51 or above      (   )

4. Does the company have a Corporate Tax Department?

Yes (   )      No (   )

If yes, what is the number of employees in that Department?

.....

5. What are their levels of Education?

Primary Level      (   )

Secondary Level      (   )

Diploma Level:

Diploma in Business Administration ( )

Diploma in other disciplines ( )

Graduate Level:

1<sup>st</sup> Degree in Business Administration ( )

1<sup>st</sup> Degree in other discipline ( )

Masters Level:

2<sup>nd</sup> Degree in Business Administration

2<sup>nd</sup> Degree in other disciplines ( )

Professional Qualification:

In Accounting ( )

In Other disciplines ( )

PhD ( )

If the answer to the above is other, please specify.....

.....

**SECTION II**

**PAYE FILLING PATTERNS AND THE TAXPAYER'S LEVEL OF EDUCATION**

1. Rank the current PAYE Income Tax System in terms of Complexity

LEVEL OF COMPLEXITY	Tick
Very, highly complex	
Very complex	
Appropriate	
Less complex	
Least complex	

2. How does the company file its PAYE returns?
3. Online ( ) Usual way of Delivering them at KRA ( )
4. How often does the company file its PAYE Income returns?  
 Before due date ( ) on the due date ( ) after due date ( )
5. If, after due date, how much penalties has the company been charged for late filling for the last four years starting from June 2004 to June 2008?
6. Have the company employees been trained by KRA or their auditors on filing of PAYE return?  
 Yes ( ) No ( )  
 Don't know ( )
7. Which of the following modes of training used by KRA do you find more educative.

Radio ( )                      Print Media ( )                      Television ( )                      Taxpayer's  
Sensitizations organised by KRA occasionally ( )

8. Are you satisfied with the training services provided by KRA on filing of  
PAYE returns, considering the  
Taxes paid?

Satisfied ( )

Partially satisfied ( )

Partially dissatisfied ( )

Dissatisfied ( )

9. If your answer to (8) above is dissatisfied, briefly list the areas that you feel  
that KRA should improve on

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

**SECTION III**

**PAYE REMITTANCE AND TAXPAYERS'S LEVEL OF EDUCATION**

1. How often does the company remit its PAYE tax?

Before due date ( ) on the due date ( ) after due date ( )

2. Has the company been trained by KRA or the company auditors on PAYE remittance dates?

Yes ( ) No ( )

3. What has been the percentage of PAYE remitted late over the last five years?

5% ( )

10% ( )

15% ( )

20% ( )

Over 20% ( )

6. Do you feel that KRA should change PAYE remittance dates so as to be in line with the other monthly taxes?

Yes ( ) No ( )

#### **SECTION IV**

#### **PAYE PENALTIES AND TAXPAYER'S LEVEL OF EDUCATION.**

1. Has the company ever been audited by KRA?

Yes ( ) No ( )

2. If the answer above is yes, how much penalty was raised?

3. What was the percentage of the penalty raised compared to the principal tax

5% ( )

10% ( )

15% ( )

20% ( )

Over 20% [ ]

4. To what extent do you think the employees working in the tax department were able to handle queries raised by the KRA tax auditors?

Tick appropriately using the 5- point scale Likert scale.

Very able ( )

Able ( )

Moderate ( )

Less able ( )

Unable ( )

Not at all ( )

4. To what extent are the employees working under the tax department conversant with the current PAYE enforcement rules?

Tick appropriately using the 5- point scale Likert scale.

Very great extent ( )

Great extent ( )

Moderate extent ( )

Less able ( )

Low extent ( )

Not at all ( )

5. Indicate the changes that you would like to be made on PAYE enforcement rules?

.....

.....

.....

.....

.....

**Thank you for taking part in the survey**