EFFECT OF ELECTRONIC FISCAL DEVICE MACHINES ON DOMESTIC VAT REVENUE IN TANZANIA (1998 – 2017)

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CERTIFICATION

The undersigned certifies that he has read and here by recommends for acceptance by the Open University of Tanzania a dissertation titled; “Effect of Electronic Fiscal Device Machines on Domestic VAT Revenue in Tanzania” in partial fulfilment for the requirements of the Degree of Masters of Arts in Monitoring and Evaluation.

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Dr. Slaus Mwisomba

Supervisor

……

Date

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DECLARATION

I, Zakayo M. Zakaria, do hereby declare that this dissertation is my own original work except where stated, and that it has not been submitted and will not be submitted to any other University for a similar or any other degree award

……

Signature

……..

Date

DEDICATION

This dissertation is dedicated to my beloved Mother Mrs. Veronica Zakaria Mmanga, my lovely wife Jackline Kitali, my lovely daughter Yvonne Zakayo and my young sister Rozina Mmanga. Their unconditional love was strength to me towards completing this work. I love them and may God bless them abundantly.

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ABSTRACT

This study aimed to investigate the effect of introducing EFD machines on domestic VAT collection in Tanzania. The study combined both quantitative and qualitative design. The quantitative part used a time series data covering the period of 20 years from 1998 to 2017 inclusive. Qualitative information involved key findings from Key Informant Interviews (KIIs) with tax-payers and tax collectors. The Descriptive analysis as well as regression analysis was used to analyze key findings of the study. Findings on the mean difference between the period before EFD and the period after EFD showed a significant effect of TZS 1,087,141 of domestic VAT per annum. The Hedge's and granger effects size revealed an effect size of about 3% domestic VAT per annum. Further, the Johansen test for cointegration revealed both short run and long run relationship between EFD and Domestic VAT collection. Despite significant effect of EFD on domestic VAT, the study also identified some challenges of EFD which include high cost of purchase device, breakdown of the system, and personal attitude toward EFD usage, maintenance costs and fairness on tax estimation. Thus, the study recommended for the Authority (TRA) to address those challenges in cooperation with tax-payers. Since EFD has proven a significance effect on revenue collection especially VAT, it is a recommended system for tax collection.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

B2G	Business-to-Government
ECR	Electronic Cash Register
EDA	International Development Association
EFD	Electronic Fiscal Device
EFP	Electronic Fiscal Printer
EFPP	Electronic Fiscal Pump Printer
ESD	Electronic Signature Device
ETR	Electronic Tax Register
KIIs	Key Informant Interviews
KRA	Kenya Revenue Authority
LGA	Local Government Authority
OLS	Ordinary Least Square
P2G	Person-to-Government
PECD	Organization of Electronic Cooperation and Development
RD	Regression Discontinuity
SME	Small and Medium Enterprises
SPSS	Statistical Package for Social Science
TIN	Tax Payer Identification Number
TRA	Tanzania Revenue Authority
TZS	Tanzanian Shilling
VAT	Value Added Tax
VECM	Vector Error-Correction Model

CHAPTER ONE

INTRODUCTION

The Chapter states background of the researched topic i.e. it provide background of the TRA establishment as well as introduction of EFD machine in Tanzania. It also includes the problem statement of the study as well as objectives. Further, the chapter describes research questions and the significance of the study.

1.1. Background to the Study

In 1996 the Tanzania Revenue Authority (TRA) was established under the Tanzania Revenue Authority Act (principal legislation) revised edition of 2006. Main concern for the establishment among other functions has been on increasing central government can finance its various projects which are keys to economic development. The major reasons for united republic of Tanzania to impose tax includes; to raise money for the purpose of financing social services like health, defense, law and order, education and infrastructure; second, to raise share of the national cake going to the poor; to encourage investment; and to defend local market on domestic products through heavy taxes on unnecessary imports (TRA 2012).

The tax system in Tanzania is built on three important components; namely tax policy, tax law and tax administration. Tax policy is a statement of what the government wants to accomplish through the use of taxation. Tax administration incorporates a set of activities in ensuring that tax is levied based on relevant tax laws and sanctions applied where appropriate. Since its inception, TRA has evolved from a Tax Administration that focuses only on revenue collection to an organisation that gives special attention to the type of services provided to its customers by

rationalizing the tax system and administration to make them simpler and more transparent so as to increase voluntary compliance and increase Government revenue.

Between 1997/98 and 2002/03, actual collections against budget averaged 99%, tax revenue as a percentage of GDP hovered around 10.7% of GDP. By 2007/08, Tanzania's tax as a percentage of GDP had risen to 14.7%. However, non-tax revenues as a percentage of GDP remained consistently low from 1991/92 (1.6%) to 2007/08 (1.2%). Tax revenue between 1996/97 and 2007/08 grew at an average annual rate of 15.7%. It is notable, that the average annual revenue growth rate between 2004/05 and 2007/08 was even higher, at 20.9%. This increase was as a result of extensive reforms undertaken between 2003/04 and 2006/07 to broaden the tax base.

The VAT system was introduced in Tanzania as a measure to increase government revenue through expansion of tax base. VAT is levied on consumption of taxable goods and services supplied in Tanzania or imported into Tanzania at the rate of 18% and 0% respectively (VAT Act 1997). It is charged at the beginning of manufacturing process and is counted in each phase of product or service production and marketing until it reaches the consumer, who pays this tax (Štreimikienė and Mikalauskienė, 2006).

The VAT system enabled Tanzania to increase its Domestic revenues to an average of 16.7% of Total Domestic Revenues between the year of its introduction 1998 and in 2011. The average of total tax contribution to GDP for the same period was

19.8%. This clearly indicates that in Tanzania, VAT contributed substantially to the growth of the national economy (TRA website). The system requires every trader who has the annual turnover of 40 million and sale taxable goods or taxable services to be registered and act as agent of government of Tanzania to collect VAT at designated points and submit VAT collected to TRA.

Before July 2002; VAT computations in Tanzania were made by using manual paper system of which the base of computations was the total taxable sales recorded by manual sales invoice and receipt books. However, the manual system of VAT collection was not that much efficient and resulted to the loss of huge revenues. Thus, in 2002 The Government of Tanzania introduced Electronic cash registers (ECRs) (Finance Act 2002), as the machines that record sales transactions of the traders at the Point of Sale. The law required VAT registered retailers to record their daily sales and issue receipts through these machines. But the system was then failed because most of them were not strong, to transmit sales information to TRA (Bakari, S. S, 2014).

Based on inefficient and failure of ECRs and the manual system in collecting VAT, in 2010 the Government of Tanzania through its agency TRA introduced modern automated system of collecting VAT. The Finance Act of 2010 stipulates that all traders and business entities, regardless their business size ought to use the devices during transactions particularly in issuance of receipts. The system uses Electronic Fiscal Devices (EFDs) under VAT regulation of EFD in 2010 Subsidiary Legislation, Government Notice No. 192 published on May 28, 2010.

Historically, the use of EFD machines in tax revenue collections started in 1980s where was firstly introduced in Italy in 1983. In East Africa, EFD was firstly used in Kenya in 2005, following by Tanzania in 2010 and Rwanda 2014. Introduction of EFD to enable TRA realize its ultimate goal of tax revenue enhancement and collection to capacity levels. This is due to the fact that VAT in Tanzania, despite its success still had many challenges including; management of repayment claims was a difficult issue, some of VAT registered traders were not issuing tax invoices, slow growth of tax base, tax evasion, tax avoidance etc. It was therefore expected that the effective use of EFDs would revolutionize and modernize VAT and Income Tax administration systems and ultimately attain increased government revenue collections.

The EFDs introduced in revenue collection in Tanzania includes Electronic Tax Register (ETR), Electronic Fiscal Printer (EFP); Electronic Signature Device (ESD) and Electronic Fuel Pump Printer. These devices are called fiscal device due to their intention to trace the economic activities of every business organization for tax purposes and report to TRA electronically, thus ensuring accurate approximation of tax returns.

1.2. Statement of the Research Problem

Several initiatives have been taken by TRA with the aim to increase tax revenue. These initiatives include the adoption of digitization of payment, which involve Person-to-Government (P2G) and Business-to-Government (B2G) payments in Tanzania. These initiatives include also the introduction of Electronic Fiscal Devices (EFD), which was introduced in Tanzania in year 2010 to enable TRA realize its

ultimate goal of increasing tax revenue especially on increasing VAT collection. Several studies including the World Bank (2016) study have been undertaken to analyze effect of digitization of tax collection systems. However, few studies have been done on analyzing a quantitative effect of EFD machines on domestic VAT collection in Tanzania. Therefore, this study intends to contribute on providing quantitative analysis of effect of EFD on domestic VAT.

1.3. Objectives of the Study

1.3.1. General Objective

The main research objective is to investigate the effect of EFD machines on VAT revenue in Tanzania.

1.3.2. Specific Research Objectives

This study includes also three specific objectives to answer the overall objective. These specific objectives include the following;

i. To assess the effect of EFD Machines on domestic VAT collections in Tanzania
ii. To examine the relationship between domestic VAT and EFD machines
iii. To examine Challenges on using EFD Machines

1.4. Research Questions

The following research questions are attached to this study to enable researcher to address the specified objectives of this study.

i. Do EFD machines have effect on VAT collection?
ii. What is the short run and long run relationship between EFD machines and

domestic VAT?

iii. What are the challenges of using EFD machines?

1.5. Relevance of the Research

Revenue is the principle means of any government to finance expenditures. The automation of VAT revenue collection in Tanzania has brought a significant change in revenue collection as well as tax administrations costs. In this regard, as far as EFD machines are concerned, this study is important to establish an empirical evidence of the adoption of EFD machines for VAT revenue collection in Tanzania. Further, the study contributes on academic literatures for theory and policy references in the near future. It also equip the researcher as young and emerging researcher and M&E expert the capability in research and evaluation approaches as used in the field of monitoring and evaluation.

1.6. Organization of the Report

This report contains five chapters. Chapter one is the introduction of the study where it contains background information of the study, statement of the problem, objectives and the relevance of the study. Chapter two is the literature review, which contain; empirical analysis of relevant studies, research gap identified, analytical/conceptual framework (for studying the problem and analyzing the data), theoretical framework and statement of hypotheses.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter defines concepts used in the study, reviews the literatures from different studies in order to capture ideas and arguments which guide the development of the study. It is based on theoretical literature review, literature review from earlier studies and theoretical framework.

2.2 Definitions

The entire concept used in this proposal is defined, so that the reader will understand anytime the word or a term used in the text Means. In your definitions let the reader know the other meanings prevailing in the literature. Note that this is not a glossary of terms. It is a description (with authority given) of the key concepts of the research.

2.2.1 Electronic Fiscal Device

The Tanzania Revenue Authority (TRA) defined EFD as a machine designed for use in business for efficient management controls in areas of sales analysis and stock control system and which conforms to the requirements specified by the laws.

2.2.1.1 Types of Electronic Fiscal Devices (EFDs)

2.2.1.1.1 Electronic Tax Register (ETR)

The device is used by retail business that issue receipts manually.

2.2.1.1.2 Electronic Fiscal Printer (EFP)

The device is used by computerized retail outlets. It is connected to a computer network and stores every sale transactions or details made in its fiscal memory.

2.2.1.1.3 Electronic Signature Device (ESD)

The device is designed to authenticate by signing any personal computer (PC) produced financial document such as tax invoice. The device uses a special computer program to generate a unique number (Signature) which is appended to and printed to every invoice issued by the user's system.

2.3 Theoretical Literature Review

Baurer (2005) argued that it is a well-known fact that the revenue generated from the taxation of individuals and businesses is an important stream of income for government. In an economy like ours that is struggling to remain afloat, it is even more important. Tax revenue is the source of funds used for development projects such as provision of infrastructure like good roads, stable power supply, stable water supply etc. All of which combine to create an enabling environment for businesses – and in turn the economy at large- to grow. However, Bofah (2003) stated that tax revenue collection is one significant issue of economic development among others. It has been said that 'what the government gives it must first take away'. Because the economic resources available to society are limited and so an increase in government expenditure normally means a reduction in private spending. Taxation is one method of transferring resources from the private to the public sector, but there are others i.e. creation of more money, to charge for the goods and services it provides or to borrow.

Taxation has its limits as well, but they considerably exceed the amounts that can be raised by resorting to the printing press, charging consumers directly, or borrowing. So while governments often use all four methods of raising resources, taxation is

usually by far the most important source of government revenue (Chaudhry, 2010). As important as tax revenue is to a nation, many people still find it difficult to comply with their tax obligation. According to Nightingale (2002) “No one really likes paying taxes yet they are inevitable for the provision of social welfare”.

James and Nobes (2009) and Nightingale (2002) while citing (Smith, 1776) posit that a good tax should have the qualities of equitability, efficiency, neutrality, flexibility and simple. These principles still holds today and even act as a guide for policy formulation. However, the ability to achieve all in a single tax policy is practically impossible; hence Nightingale (2002) stated that there is no good tax. This is because an efficient tax might be inequitable. According to Lamb *et al* (2005) “An efficient tax may not necessarily be considered fair and one that is considered equitable may not be efficient”. Ordinarily, people abhor tax payment due to its effect on their income. Owens (2006) noted that only a few people are enthusiastic about paying tax.

2.3.1. Fiscal Exchange Theory

The theory suggests that the presence of government expenditures may encourage tax compliance from the tax payers (Moore, 1998). According to him tax compliance among society increases with perception of the availability of public goods and services being developed in relation to the tax paid. They suggested that government can increase tax compliance by providing goods and services that citizens prefer in a more efficient and accessible manner, emphasizing that taxes are necessary for the receipt of government services. Accordingly, taxpayers are concerning with what

they are getting in return for their tax payments in the form of public services. In this perspective, taxation and the provision of public goods/services become catalysts to taxpayer in compliant to the tax paid (Fjeldstad and Semboja, 2001 cited in Horn, 2013). This theory is more practical and acceptable because, it advocates individual willingness to comply without direct coercion. Furthermore, it serves the government from high collection costs resulting from enforcement measures.

According to this theory it can be said that whatever much the government or administrative authority adopt modern systems of collecting tax-the effectiveness of tax/revenue collection depends on the public services provided by the government to the tax payers. Therefore, it can be argued that introduction of EFDs in Tanzania cannot improve revenue collection if the public services offered are not equivalent to the tax revenue collected. This theory has helped the researcher to understand that if there is effective provision of public goods or services within a nation, it might advocates individual's willingness to pay tax without complaints.

2.3.2. Social Influences Theory

Human behavior in the area of taxation is influenced by social interaction in the same way as other forms of behavior (Snavely, 1990). Compliance behavior towards the tax systems may therefore be affected by the behavior of an individual's reference groups such as relatives, neighbors, and friends. If a taxpayer knows many people in his group who evade taxes, his commitments to comply will decline. On the other hand, social relationships may also help motivate individuals to comply and shy away tax evasion behavior in fear of the social sanctions imposed once discovered (Grasmick, 1982 cited in Samson, 2012).

This theory to a large extent, support the fiscal exchange theory (Snavely, 1990) also noted that the society with government advocating good governance has better chances to comply with laws and orders including tax laws might create a tax payment culture among the society members. The implication of this theory is that in paying tax; behaviour or culture of the society concerned intervene the processes. Therefore, for the government of Tanzanian to attain 'big results' in tax collection there is the need for the tax collection agencies to carry out aggressive tax compliance campaigns that will assist in shaping behaviors of community members to become enthusiastic/keen in paying tax.

2.3.3. Theory of Planned Behavior

Theory of planned behavior is an important theory which presents within the scope of the social psychology and tries to explain human behaviors. This theory was developed by (Ajzen, 1991) and it is just the improved form of the Theory of Reason Action suggested by (Ajzen and Fishbein, 1980) in order to explain conscious behaviors. According to this theory, behaviors of the individuals within the society are under the influence of definite factors, originate from certain reasons and emerge in a planned way (Karanja, 2014).

Nevertheless, the ability to perform a particular behavior depends on the fact that the individual has a purpose towards that behavior. As for the factors determining the purpose towards the behavior, they are attitude towards behavior, subjective norms and perceived behavioral control (Karanja, 2014). Factors counted above are also under the influence of behavioral beliefs, normative beliefs and control beliefs (Ajzen, 2002).

Intention is the basis of this theory and performance of a behavior or its transformation into a different behavior depend on the intention that the individual has generated towards the behavior. In the tax compliance environment planned behavior theory described intention as the factor indicating the degree of individual efforts in order to perform a certain behavior (Ajzen, 1991). Intention is explained by attitudes towards behavior, individual norms and perceived behavior controls (Klee *et al.* 2010). Attitude includes the evaluations made by the individual who will perform the behavior (compliance) regarding the act of that behavior.

Also the subjective norm refers to the opinions of the other individuals who are important for individuals that will perform the behavior or are taken as reference as regards to this behavior. Finally, perceived behavior control specifies the difficulty level of the performance displayed by an individual. This element can sometimes affect the behavior directly. For example, in case the behavior control does not depend on the desire of the individual, in other words, if there is any legal sanction, perceived behavior control can affect the behavior directly. As a conclusion, the Theory of Planned Behavior posits that tax payers' intentions, together with their perceived control over the behavior determine whether or not they will actually engage in the tax compliance. The aim of this study was also to analyze the behaviors of taxpayers regarding use of the technological procedures in tax payment. Hence the theory helped the researcher in observing the behavior of individual regarding their attitude towards use of EFDs.

2.4 Empirical Review

There are a number of researches, surveys and studies conducted on this topic. The

studies have been conducted in varied dimensions and also across various sectors of learning. This section provided a general review of the empirical evidence regarding the matter under study.

2.4.1 Reasons for Adopting EFDs Machines in Tax Collection

(Naibei et al, 2011) conducted a study to find out reasons for the adoption of Electronic Fiscal Devices in tax collection in Kenya. Interviews and questionnaires were used as the main instruments for data collection. Primary and secondary data were collected and analyzed. From the findings of the study, the most common stated reasons for adoption of this new system of tax collection were to secure sales information followed by enhancing tax compliances. Also the findings indicated that the system was introduced so as to reduce invoice fraud in Kenya which was being conducted before. The study recommended that, the effective use of these machines in tax collection will remove the day to day conflicts between the taxpayers and the government particularly the tax authority.

(Mmanda, 2014) conducted a study on the reasons for the use of electronic fiscal devices machines to ensure effective tax collection in Tanzania. The researchers collected primary data through face to face interview with TRA officers who were the main respondent in this study and questionnaires were distributed to traders. The results from the findings showed that computer technology can be used to perform more rapidly such routine tasks as processing forms, compiling statistics, and using available data to forecast tax revenue. Also the study indicated that computerization of the tax collection process enables easy detection of defaulters and also helps to reduce corruption by reducing personal interaction between tax officers and

taxpayers. The study concluded that the use of EFDs machines in tax collection simplifies the process of collecting tax and paying taxes as well as saving time.

(Chiwambo, 2014) conducted a study to find out the reasons behind the introduction of EFDs machines in tax collection in Zimbabwe and South Africa. Questionnaire was used as the means of data collection and data were analyzed based on both qualitative and quantitative approach. The results of the study indicated that the introduction of EFDs machines aimed at allowing the tax collectors to get correct sales information from business people; reduce tax collection costs and helping business people to comply with the Value Added Tax (VAT) regulations among others.

Also the study showed that a EFDs machine simplifies collection of taxes and paying of taxes as well as saves time and cost in both tax collectors and payers. The study recommended that the government through the ministry of finance should have a tendency of providing enough education to the people in order to make them aware on what is going to be introduced and it`s important to the people including traders, hence this would help to avoid conflict that can rise between government and business owners.

(Esay and Solomon, 2014) conducted a study on assessment of factors for the reasons of adoption of EFDs machines in tax collection in Ethiopia. The study used a cross-sectional survey design where interview and questionnaires were used to get primary data. Results from the findings indicated that, the adoption of EFDs machines aimed at compiling tax payer's information in modern data compiling

system to avoid losing of memories, also giving fair answer to the taxpayers without any discrimination. The study also showed that these machines were introduced so as to enable the tax authority to work together with the taxpayers for a common goal of increase revenue collection in Ethiopia. The study suggested for the Medias to play a role of creates awareness, deliver full, updated and accurate information to the taxpayers and more generally to the public as a whole.

2.4.2 The Significance of EFDs Machines

Kenya has witnessed significant changes in many aspects of its economy over the last four decades, but like most developing countries, it has had to compete with the common problem that affects tax collection in developing countries as noted by (KRA, 2009). This led to the introduction of EFDs in tax collection system in the year of 2008. Following the introduction of this devices (Magutu, 2010) conducted a study to determine the extent to which the Electronic Fiscal Devices are being used by the taxpayers, he found the following the problems encountered in using them as well as get possible solutions to the problems facing service providers, wholesalers and large scale retailers and supermarkets in Nairobi, Kenya.

The study revealed that the use of EFDs machines was good because once a taxpayer enters information Kenya Revenue Authority (KRA) gets information after 24 hours and if one tampers with the information, the machine reports everything. The study recommended that stakeholders need more awareness of the system and friendly environment of using EFD machines in which they suggested strongly strategies for improvements of the system.

Naibei, *et al.,* (2011) conducted a study on the purpose of assessing the impact of use of Electronic Tax Registers (ETRs) on Value Added Tax (VAT) compliance among private business firms in Kisumu city, Kenya. Results revealed that effective and regular use of ETR has a significant impact on the Value Added Tax (VAT) compliance. Based on the research findings the study concluded that use of ETR has a significant impact on VAT compliance in Kenya. However, the study also recommended that the government needed appropriate strategies to overcome challenges which may face the users of ETRs machines.

Yalemtesfa, (2011) conducted a study on the importance of using EFDs to increase revenue collection in Ethiopia. The findings from the study indicated that, the use of EFDs machines reduce the operation cost of the government that was incurred to collect VAT as well as improve the business income of tax payers. Also the study indicated that while EFDs improving the efficiency and effectiveness of government operations also provides timely and accurate tax information to businesses and increases the availability of electronic tax filing. The study concluded that introduction of EFDs helped to decreases tax evasions and need to create enough awareness and strong regular audit follow up to get those fruit full benefit of using EFDs. The study recommended that creating awareness of the people by newspapers, pamphlets, with attractive radio and television programs is very important in eliminates the tax evasions and can enhance the efficiency of the ERCA.

(Nyasha, et. al, 2012) conducted a study to find out the attitudes of employees towards the use of EFDs in calculating value added tax (VAT) in Zimbabwe. The findings of their study revealed that EFDs had positively impacted on the business

sector through improvements in tax collection, saves time in tax collection, reduces direct contact between tax collectors and hence minimize corruption. They thus recommended that Public-Private-Partnerships between government and firms in developing the infrastructures required for improving the current level and depth of internet and telephony usage. Consumer education was also recommended for improving awareness of the benefits of using EFDs machines in tax collection.

2.4.3 Challenges of EFDs Machines in Tax Collection

Mutalemwa (2014) assessed the challenges of adoption of electronic fiscal devices (EFDs) in tax collection in Tanzania. The findings of the study revealed that, the adoption of EFDs machines in Tanzania lead to conflict between the government and traders due to the fact that traders were forced to buy machines. Also the study showed that, traders oppose the use of EFDs machines through demonstration by stopping opening their shops and doing small businesses.

Based on the same context (Mmanda, 2014) reported that in September, 2013 Mbeya traders opposed the use of EFD by stopping opening their shops and small business followed by the similar demonstration in Morogoro and Dar es Salaam. According to Mutalemwa (*ibid*) these challenges occurred because the government failed to provide enough education to traders who were required to buy these EFDs machines and what amount of capital needed so as to have that machine. The study recommended that, mass education is very important once the government wants to introduce new system of collecting taxes that might affect the traders so as to avoid conflict between the government and traders.

Similarly, (Chiwango, 2012) conducted a study to find out whether the introduction of electronic fiscal devices already making a difference in tax collection in Tanzania. The study revealed that during the short period of the operations of the EFDs from October to March 2010 tax payers have been lamenting due to several challenges which significantly affect the VAT registered traders. Also, the study revealed that, it has been observed that the training period was not adequate as most of the taxpayers are still in darkness with regard to the management and effective use of EFDs in their business.

Again the study showed that most of taxpayers were facing problems with the process from the point of ordering up to the installation stage as well as complaining that the machines are not working properly as expected and as advocated by the authority. The study recommended that taxpayers still need to be well-trained on how to use EFDs machines as well as the importance of using these machines. Moreover the study recommended that tax authority should analyze the effectiveness of EFDs for the period that the machines have been used and rework on all shortfalls identified to streamline the uses of the same.

(Esther, 2014) conducted a study to assess challenges facing the implementation and use of EFDs in tax collection in Tanzania. The study employed quantitative research approach. The study indicated that EFD system had a lot of challenges which hinder the implementation and usage of the device. Those challenges include regular break down of the system, lack of knowledge on the use of EFD machines, high cost of buy and maintenance the devices. The study recommended that stakeholders need more awareness of the system and friendly environment of using EFD machines in

which the study suggested the strategies for improvements of the system to be put in place. Also, the challenges facing the implementation of using of EFD machines in the tax revenue collections process in Tanzania have been examined by (Ikasu, 2014). The results showed that regular system break down, unfairness of tax estimation from tax payers and lack of skills on the use of EFDs machines was the major challenges face the implementation and use of EFD.

Weru, et al (2013) conducted a study on the impact of introduction of computerized tax register for enhancement of tax collection at Uganda Revenue Authority in Kampala. The study used quantitative and qualitative approaches. In addition, the study applied probability sampling that involved simple random sampling technique to identify the sample size of the study. The major findings indicated that ETR system had enhanced tax collection in business premises in Kampala. It was further found out that the stakeholders were yet to be trained effectively on the use of computerized tax collection machines. Also the study revealed that the Authority is still experiencing some resistance to change from both internal and external customers. Moreover the study found out that tax payers resisted the use of computerized machines due to insecurity, personal attitudes, and lack of trust, financial reasons, misunderstanding, and fear of the unknown, disturbance of the routine systems of the businesses, inconvenience and group norms.

2.4.4 Measures to Reduce Challenges of using EFDs Machines

Nawaz (2010) conducted a study on how to control challenges of using EFDs machines in system of revenue collection in Malawi. The study revealed that through mass communication; the government via tax authorities has a tendency of providing

enough education to the people in order to make them aware on what is going to be introduced and it was important to the people including traders. The study recommended that mass communication would help much to avoid conflict that can arise between the government and business owners.

Mbilinyi, (2010) conducted a study to find out ways of reducing obstacles in the implementation of EFDs in effective tax collection in Tanzania. The results indicated that the government through TRA should increase traders' involvement on revenue collection decision making. Also the study indicated that in order to be able to attain the country`s developmental goal the stakeholders in this tax system should work together with a common goal. The study concluded that this involvement would help to reduce misunderstanding between traders and government, as happen nowadays, on the taxation arrangement.

Clive (2011) conducted a study on ways to reduce misunderstanding between the taxpayers and the government of Madagasca basing on challenges of using EFDs machines in tax collection. Interview and questionnaires was used during the process of data collection, and obtained data were analyzed using thematic and descriptive approaches. Results obtained from the study indicated that, the tax authorities should focus on the use of media as it plays important role in creating awareness. Moreover the study showed that media should be used in delivering full, updated and accurate information to the taxpayers and more generally to the public as a whole, about the impacts of fair taxation and the activities that the collected tax is used for. The study concluded that media also plays a vital role in creating and building the fairness of the taxation system in a good form.

Agola (2010) conducted a study focusing on perception of Nairobi traders on how to eradicate challenges of using Electronic Fiscal Devices in Nairobi. The findings revealed that the government through Kenya Revenue Authority (KRA) should enhance penalties to those who engage in tax evasion, as tax evasion is a serious matter to the tax authority. The study concluded that giving fair answers to the taxpayers without discrimination and bias would also solve the problem. The study also suggested that, in order to fairly implement the tax system the taxpayers who engage in tax evasion need to be penalized equally without considering their business level.

2.5 Theoretical and Conceptual Framework

2.5.1 Theoretical Framework

The understanding of taxpayer's compliance towards the effect of introduction of EFD machines in revenue collection is an important stage to consider in describing how traders behave toward the institution and implementation of EFD machines as researcher has explained that taxpayer behavior in respond to tax compliance can be described through the said five theoretical foundations.

2.5.2 Conceptual Framework

The conceptual framework of VAT collection in this study is based on the production function whereby VAT collection depends on the number of EFD machines in operation. However, there other factors that influences VAT collection such as level of tax fraud, the level of export and import, awareness of tax payments, consumption level in the country and the Standard of life in the country. Therefore, the conceptual framework below shows VAT collection depends on EFD machines,

imports, value of services and interest rate.

Figure 2.1: Conceptual Framework
Source: Mohamed, 2015

2.6 Research Gap

Other scholars who have done similar studies include Ekasu, (2014), Weru at el, (2013), Duke,(2013) ,Clive, (2011), Mmanda, (2010) and Horn,(2003), their studies have tried to describe the challenges, principles, benefits, advantages and disadvantages as well as strategies of implementing the use of EFDs machines. But this study under investigation will determine and reveal the effect of introducing EFDs in the VAT revenue collections using rigorous methods.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

This Chapter shows the strategies that will be employed to undertake this study. It provides the roadmap plan or methodology where it involves the design of the study, type of data and analysis framework.

3.2 Research Design

This is a descriptive study, which employs both desk research and survey research approach. Descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual, or of a group (Kothari, 2004). The study makes use of both qualitative and quantitative approaches. The quantitative research is a measure of phenomena using numbers in mathematics and statistics procedures to process data and summaries data. It involves numerical data (Fellows and Liu, 2003). Quantitative design was employed to deal with the time series data that used to trace effect of EFD machines. However, qualitative design responded to the qualitative information on the challenges on the usage of EFD machines. Further, the study involved a time series design for data on revenue to trace the trend and exploring the effect of EFDs machines.

3.3 Survey Population

(Sekaran, 2003) described population in research as an entire group of people; event or objects/things of interest that the researcher wished to investigate. This study included registered VAT taxpayer/traders (100 individuals) and the TRA's staff (20

individuals). The VAT-payers were visited in their working places/offices in Dar es Salaam.

3.4 Study Area

The study covered a time series secondary data from 1998 – 2017 on domestic VAT collections in whole Tanzania. On the other side, primary information was collected from Dar es Salaam city. Dar es Salaam city was chosen given the facts that is the area characterized by high number of businesses in the country. It was also chosen by considering researcher's flexibility and availability.

3.5 Sampling Design and Procedures

The study employed a non-probability sampling design more specifically the purposive sampling. Purposive sampling was employed to enable the research to purposively select respondents in both traders and TRA officers that with good knowledge regarding VAT and EFD machines.

3.5.1 Sample Size

Sample size is the number of respondents selected to participate in the study from targeted population. The sample size of this study included 100 VAT registered traders and 20 TRA's staff in Dar es Salaam. Therefore, total numbers of the key respondents were 120 individuals.

3.6 Types and Sources of Data

The study employed both qualitative and quantitative types of data which was gathering from the primary and secondary sources of data. Quantitative data was captured through the secondary source of data as well as primary source. Secondary

source involved gathering data from Tanzania Revenue Authority (TRA) on domestic VAT for a period of 20 years from 1998 to 2017 inclusive. Primary source involved interviews with TRA officials as well as traders to capture their experience opinions and recommendations on EFD machines. Qualitative data was gathered through the primary source, where key informant with well knowledgeable traders and TRA officials on EFD were interviewed.

3.7 Methods of Data Collection

Primary data was collected by through survey where questionnaires and Key Informant Interviews (KIIs) were used. Secondary data on tax revenue collection which included domestic VAT was gathered from the TRA revenue records and Bank of Tanzania (BoT) from year 1998 to 2017. Since the data will be in time series nature thus several tests for time series was performed. Key informant interview guide was prepared to capture primary information from tax-payers and tax collectors.

3.8 Data Processing and Analysis

Data was processed and analyzed with the assistance of several statistical packages such as SPSS, Excel and STATA. The study employed descriptive data analysis technique to analyze data and inform on effect of EFD machine on domestic VAT. Further, the ordinal and correlation analysis were performed to analyze relationship and the strength of relationship between EFD and domestic VAT. The analysis also involved the use of regression discontinuity plot to check for discontinuity just after introduction of EFD. In this regard, VAT in years before the introduction of EFD

machines i.e. before 2010 was treated as the counterfactual to the VAT revenues after the introduction of EFD machines after 2010 to 2017.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of this study after gathering data from various sources. Data and information are presented in several ways including tables, charts and graphs. Data analysis was performed by assistance of data analysis packages such as STATA and Ms Excel. The study considers a time series data for 20 years from 1998 to 2017.

4.2 Demographic Information

4.2.1 Gender of Respondents

This section presents gender of respondents participated in the survey which included TRA officers and Tax payers. Table 1 below shows gender distribution in each category of respondents. In both categories the turn up of Male respondent (64% and 57% on TRA and tax payers respectively) was higher compared to female (36% and 43% on TRA and tax payers respectively).

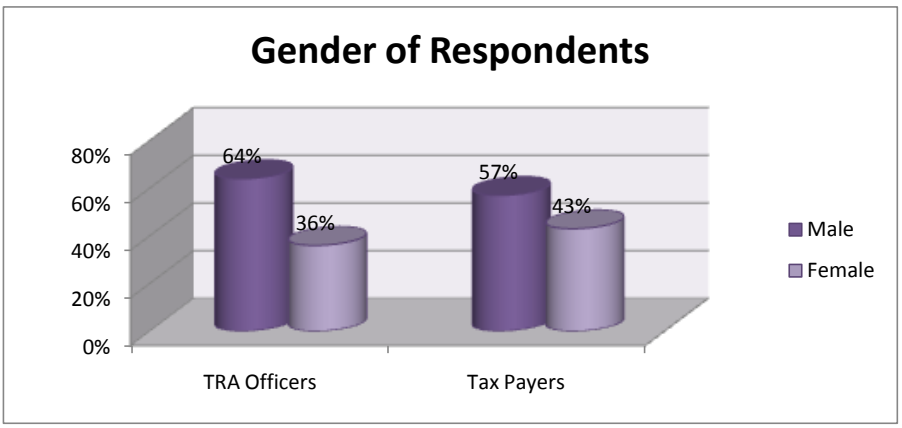

Figure4. 1: **Gender of Respondents**
Source: Survey Responses, 2019

4.2.2 Education Level of Respondents

The section presents education level of respondents. The information was important on analyzing the knowledge of the subject matter to respondents. Most of the respondents participated in the interview for both TRA officers and Tax payers were having undergraduate level of education followed by those with postgraduate. For TRA officers there were no respondents with education level below undergraduate but for tax payers 27% were holding a diploma level of education and 9% with secondary level of education.

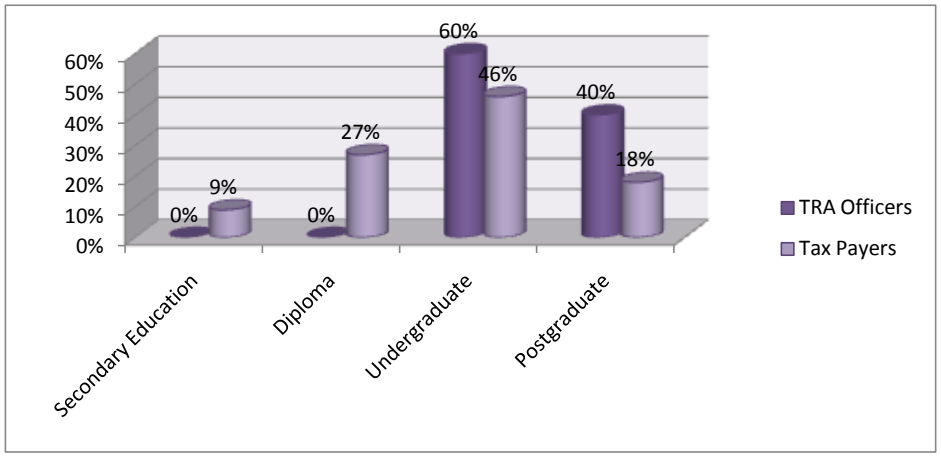

Figure 4. 2: Education level of Respondents

Source: Survey Response, 2019

4.3 Trend of Domestic VAT

The Figure 4.1 below shows an increasing trend of domestic VAT since year 1998. There was a tremendous increase in domestic VAT from 1998 to 1999 due to the official introduction of VAT in Tanzania. However, the trend became slightly flat trend for years 2009 and 2010 were tax revenues started to increase in absolute term. An elastic increase of domestic VAT continued after introduction of EFD machines.

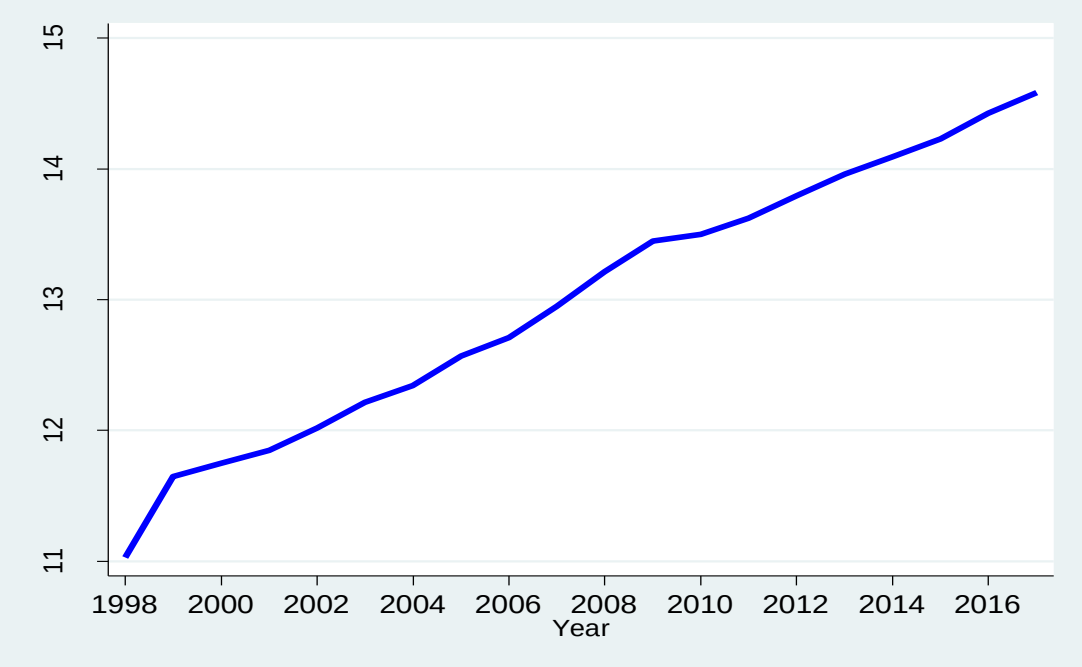

Figure 4.3: Trend of Domestic VAT
Source: Tanzania Revenue Authority

4.4 Effect of EFD on Domestic VAT Collection

Since the data are time series nature, variables have been transformed into Log form to reduce variability of data and make data conform more closely to the normal distribution.

4.4.1 Domestic VAT Collection before and after EFD

The average domestic VAT collection for the period before introduction of EFD machines and the period of EFD machines was estimated. Findings in Figure 4.4 below reveal a huge difference between the two periods. The period of EFD, average VAT is around TZS 1,398,406 mil whereas the period before introduction of EFD machine, the average VAT revenues was about TZS 311,265.7 mil, which makes a difference of TZS 1,087,140.3 mil.

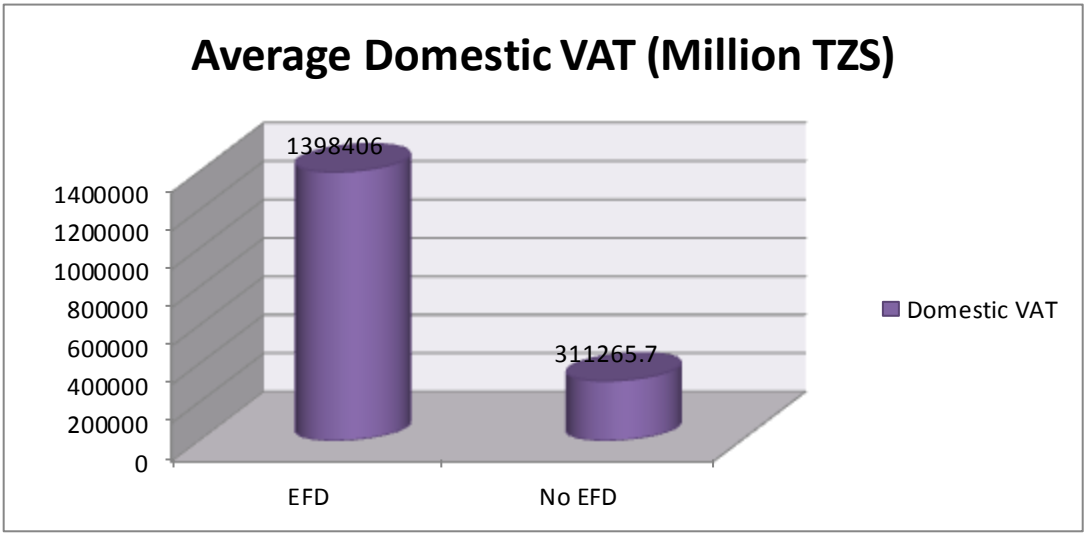

Figure 4.4: Average Domestic VAT before and after EFD

Source: Data Calculation, 2019

The one sample t test was performed to check if the average difference (TZS **1,087,140.3** mil) is significant or not. Results reveal the mean difference to be significant at 95% confidence interval with the absolute t value of 2.8478 (see the Table 4.2).

Table 4.1: T Test for the Average VAT difference (hypothesized mean = 1087140.3)

One-sample t test

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
domest~t	20	691764.9	138833.4	620882	401183.2	982346.6

mean = mean(domesticvat) t = -2.8478

Ho: mean = 1.1e+06 degrees of freedom = 19

Ha: mean < 1.1e+06 Ha: mean != 1.1e+06 Ha: mean > 1.1e+06

Pr(T < t) = 0.0051 Pr(|T| > |t|) = 0.0103 Pr(T > t) = 0.9949

Source: Data Calculations, 2019

4.4.2 Regression Analysis

The simple linear regression analysis of domestic VAT against EFD only was performed to see the effect of EFD without considering other variables in the model. Table 4.4 shows the regression results, where, EFD is observed to contribute in domestic VAT by TZS 1,087,141 million which was earlier seems the average difference of domestic VAT collections between the period of EFD and the period without EFD. T statistic shows the contribution of EFD to be significant at 95% confidence interval and the R^2 shows almost 73% of the independent variable is explained in the model.

Table 4.2: Simple Linear Regression Analysis with EFD only

Source	SS	df	MS	Number of obs =	20
				F(1, 18) =	49.72
Model	5.3775e+12	1	5.3775e+12	Prob > F =	0.0000
Residual	1.9469e+12	18	1.0816e+11	R-squared =	0.7342
				Adj R-squared =	0.7194
Total	7.3244e+12	19	3.8549e+11	Root MSE =	3.3e+05

domesticvat	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
efd						
EFD	1087141	154179.2	7.05	0.000	763222.4	1411059
_cons	311265.7	91213.62	3.41	0.003	119633	502898.4

Source: Data Calculation, 2019

4.4.3 Effect Size of EFD

Effect size of EFD was estimated to check for any significant effect of EFD by comparing mean of the two periods i.e. mean of domestic VAT for the period before introduction of EFD machines and mean of domestic VAT for the period after introduction of EFD machines. Cohen's d and Hedges's g estimates was considered

in checking for effect size. Table 4.6 below shows that EFD increases the mean of domestic VAT by 3% per annum.

Table 4.3: Effect Size of EFD

```
Effect size based on mean comparison

                                    Obs per group:
                                                EFD =       7
                                             No EFD =      13
------------------------------------------------------------
        Effect Size |   Estimate     [95% Conf. Interval]
--------------------+---------------------------------------
          Cohen's d |   3.305631      1.87454    4.697317
          Hedges's g |   3.165626     1.795147    4.498369
    Glass's Delta 1 |   2.287581     .6988707    3.819829
    Glass's Delta 2 |   4.895545     2.737412    7.017718
   Point-Biserial r |   .8568517     .6858609    .9208509
------------------------------------------------------------
```

Source: Data Calculation, 2019

A before and after discontinuity plot (Figure 4.7) was also estimated to visualize through graph if there is any significant effect after introduction of EFD machines for VAT collection. The graph uses year 2010 as a cut-off point as it is when EFD machines was firstly introduced. The line below 2010 (red color) represents domestic VAT before introduction of EFD machines and the line above 2010 (green color) represents domestic VAT after introduction of EFD machines. Both lines reveal an increasing trend, meaning that, domestic VAT keeping on increasing year after year. However, there is no discontinuity of domestic VAT just after introduction of EFD machines. This implies that EFD machines have not made any significant impact on domestic VAT though revenues are keeping on increasing year after year.

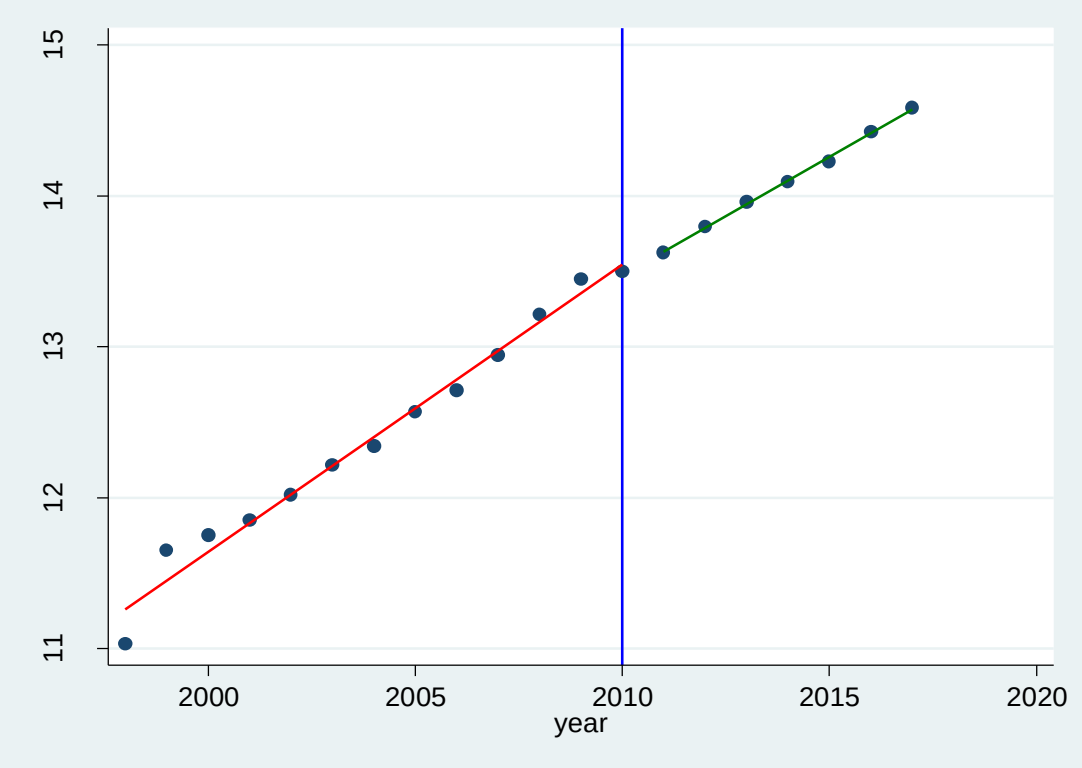

Figure 4.5: RDD Plot for Domestic VAT
Source: Data Calculation, 2019

4.5 Relationship between Domestic VAT and EFD

To determine the relationship between EFD and domestic VAT, correlation analysis was performed to analyze the nature (direction) of their relationship as well as the strength of their relationship. Further, the interview with TRA officials and tax payers covered the analysis of benefit of EFD on improving domestic VAT collections.

4.5.1 Correlation

The correlation results reveal a very strong positive relationship of 85.69% between EFD and domestic VAT. In that regard, EFD is very important for causal effect of domestic VAT collection.

Table 4.4: Correlation

	efd	domesticvat
efd	1.0000	
domesticvat	0.8569	1.0000

Source: Data Calculation, 2019

4.5.2 Benefits of EFD

The benefits of EFD on domestic VAT collection were analyzed for tax payers and TRA officials differently. For tax payers, almost all the respondents agreed to the proposed benefits of EFD towards tax administration and consequently improve domestic VAT collection. Figure 4.6 presents the results for tax payers where more 80% said it is very true that EFD has led to an increased reporting sales, improved filling rates and increased registration of those previously outside the system.

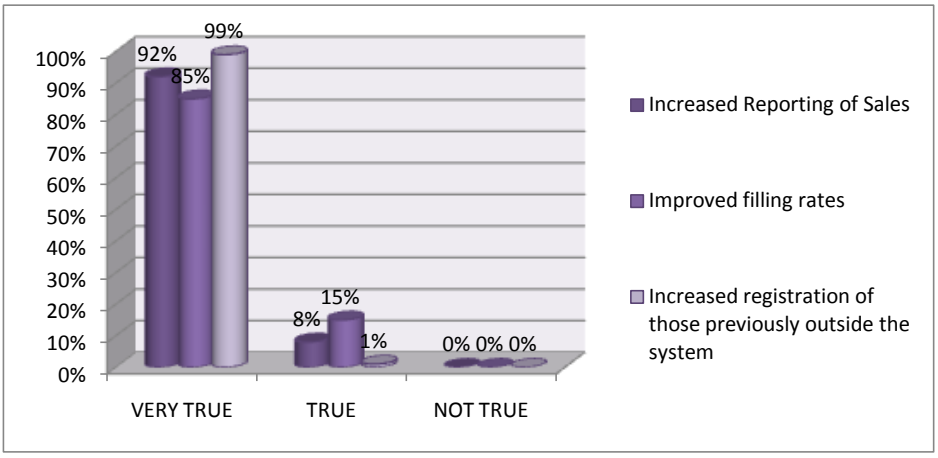

Figure 4.6: Benefits of EFD

Source: Survey Response, 2019

For TRA officials the Key informant guide was used to capture this information, where the response revealed that EFDs implementation is part of a comprehensive compliance improvement strategy to produce positive results both in terms of additional revenue and improved taxpayer behavior. This information was supported by the rebounded of VAT collections in Tanzania just after introduction of EFD in Tanzania in year 2010.

4.5.3 Johansen Test for Cointegration

Johansen test for cointegration was performed to check for the shortrun and long run relationship of EFD and domestic VAT. This analysis presents what change in EFD will bring about a change in domestic VAT in the short run as well as in the long run. The Johansen cointegration test has shown existence of one cointegration equation between domestic VAT and EFD. The table below shows the cointegration equation, which presents the long run effect of EFD on domestic VAT.

Table 4.5: Cointegration Equation

```
Equation           Parms    chi2     P>chi2
-------------------------------------------
_ce1                   1   13.42104   0.0002
-------------------------------------------

Identification:  beta is exactly identified

                 Johansen normalization restriction imposed
------------------------------------------------------------------------------
        beta |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
_ce1         |
Ldomesticvat |          1          .       .       .            .           .
         efd |  -2.237324    .610711    -3.66   0.000    -3.434295   -1.040352
       _cons |  -11.38264          .       .       .            .           .
------------------------------------------------------------------------------
```

Source: Data Calculation, 2019

The long cointegration equation presented in the Table 4.10 above indicates that the normalization restriction is imposed on domestic VAT. Thus the percentage increase in EFD will result to 2.23% increase in values of domestic VAT in the long run. The effect is statistically significant. This aligns with the previous finding above that the effect of EFD machines on domestic VAT is very small or might be negligible but rather it has improved and simplified the mean of domestic VAT collections.

4.6 Challenges and Opinions on using EFD Machines

The section discusses the challenges encountered in using EFD machines from both the tax collector (TRA) and the tax payers. It also captures opinion by the two players in VAT revenue collection. Information on this section was mainly captured from key informants.

4.6.1 Challenges of using EFD

Respondent from TRA explained who is counted as a VAT tax payer, the following are;

i. Persons who are not VAT registered with a turnover ranging from TZS 14 million and above per year;

ii. Traders trading in the Region's prime areas, identified on the basis of rent payable;

iii. Traders dealing with selected business sectors such as Spare Parts, Hardware, Mini Supermarkets, Petrol stations, Mobile phone shops, Sub wholesale shops, Bar and Restaurants, Pharmaceutical Stores; Electronic Shops.

Mainly the challenges mentioned were falling with the following categories: high cost of purchasing EFD machines, personal attitudes, and breakdown of the system, maintenance of the machine and fairness of tax estimated. Figure 4.7 presents the challenges identified by tax payers with the severity of the challenge.

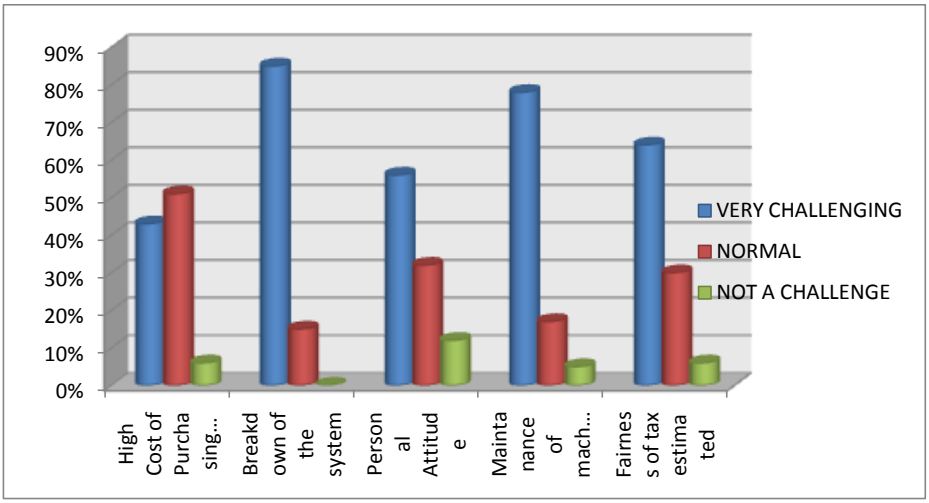

Figure 4.7: Challenges of EFD

Source: Survey Response, 2019

Breakdown of the system was mentioned to be the most challenging aspect on using EFD that affects its effectiveness and efficient. This was followed by maintenance of the machine which has a cost implication to tax payers and it imposes another challenge of trading without provision of EFD receipts. Fairness on estimating tax to be paid by traders was also seem to be a very challenging as it leads to unfairness on provision of tax imposed to tax payers. Personal attitude on using EFD was also mentioned as challenge which mainly caused by lack of education and awareness on using EFD machines. Lastly, respondents mentioned the cost of purchasing EFD machine is still very high, despite efforts by the government to intervene and direct

suppliers to sell in a relief price but the price still seems to be very high. This was mainly mentioned by petrol station traders.

For instance the cost of buying EFD devices was mentioned to be too high to the tax payer. The like response was found in Zimbabwe through the study done by Andreoni (2013) were costs of purchasing EFD machines were seem to be high as well as cost of maintenance. However, information from TRA said EFDs prices differ depending on their model. Normally the EFD ranges from TZS 500,000 to 6m.

i. Electronic Tax Register (ETR) are sold at 590,000/-. These are used by traders who do not use computer and accounting system.
ii. Electronic Signature Devices (ESDs) are sold at 1m – 1.2m and are used by traders use computer and special accounting systems.
iii. Electronic Fiscal Printers (EFP) is sold at 1.5m to 1.7m. These are used by computerized retail outlets and are connected to a computer network stores every sale transactions or details made in its fiscal memory.
iv. Electronic Fiscal Pump Printer (EFPP) is sold at 6m and is used by fuel stations.
v. Devices used in bureau de change shops are sold at 2.15m

One was noted said;

> *"Electronic Fiscal Device (EFD) was designed for the use in business to ensure efficient management controls in areas of sales analysis and stock control system and which conforms to the requirements specified by the law"* said a respondent.

To the tax collectors personal attitudes was rated to be a very big challenge hindering the use of EFDs machine in Tanzania. It was argued that people differ in

the way they interpret issues. However people have different levels of understanding, some can easily understand, some can take time to understand and others can understand easily but pretend like they haven't understood.

Under this concern, it was highly seen that people (tax payers) do intentionally avoid paying tax. This is mainly happen by fraud EFD machines to produce fake receipts. The receipts provided does not account for tax payment to TRA. Sometimes the sellers tend to charge different prices to buyers when requesting for EFD receipts. That is, there prices charged without EFD receipts which is lower price and price charged with EFD receipts which is higher price f the same commodity.

> *"Some of sellers do fraud EFD machines to produce fake receipts. Those receipts provided does not account for tax to TRA rather it is a fake receipt. Further, some also do charge different prices for the same commodity with EFD receipt and without receipt. When a buyer need a receipt he/she is charged more compared to when he/she does not require receipt. This is the recent big challenge but TRA is working on it and started to sort and to take into law those sellers produce fake receipts."*

With that reason it might be the reason that reduces the effect of EFD machine on revenues collection especially domestic VAT revenues. But in a real sense EFD machines have facilitated the payment of tax revenues and make the process more effective.

4.6.2 Measure taken by TRA to Address Challenges

Apart from encouraging the use of EFDs as a means of enhancing tax collections, TRA also regularly conducts tax education programs such as Seminars, workshops, radio programs, TV programs, outreach programs and distributing EFD brochures as part of efforts to enhance voluntary tax compliance. The following are other

measures taken by TRA against the EFD challenges mentioned above:-

i. Enforcement measures were taken to those who disobeyed the law including imposing fines and penalties
ii. Conduct Regular EFD monitoring programs (Desk Examination Programs, Field Visit Programs, Online Check Programs ,Surveillance Programs and Inspection Programs)
iii. Regular meetings with EFD suppliers to discuss the progress of EFD distribution assignment and problems associated with it.
iv. TRA educated its staff on how to use EFDs
v. Proper vetting of VAT returns and advised taxpayers to revise their returns if errors were observed.
vi. Press releases made by TRA clarified measures that shall be taken to those traders who refuse to purchase and use EFDs.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The study aimed to investigate the effect of EFD machines to domestic VAT in Tanzania. The study used a time series data for 20 years from 1998 to 2017 as well as a simple survey to tax payers and TRA officials. The study used a dummy variable of EFD for the two different periods of EFD introduction. Year 2010 is the cut-off to differentiate the two periods where, before 2010 is the period before introduction of EFD machines and the years above is the period after introduction of EFD machine.

Findings in this study indicate the increasing trend of domestic VAT throughout from 1997 to 2017. The increase in each year reflects the result of different reforms nd efforts undertaken by TRA to ensure increased tax revenues in the country. This was also caused by the increased number of tax payers which happened year after year new businesses are introduced. Even after introduction of EFD, domestic VAT was also seen to increase year after year.

Findings show a significant effect of EFD machines to domestic VAT with the effect size of almost 2% per annum. The correlation results revealed a strong positive relationship between EFD and domestic VAT. This relationship implies the causal effect of EFD on domestic VAT in such a way that increasing or strengthening EFD machines in tax collection will result to increasing domestic VAT. Findings were further reveal that EFD improved the effectiveness in processing VAT returns; reduced the tax-reporting burden on businesses, while improving the efficiency and

effectiveness of government operations. It also provide timely and accurate tax information to TRA, and increase the availability of electronic tax filing.

Despite the challenges faced by both tax payers and TRA official in the operation of EFD machines, which include; education on using EFD machine, destruction od machines by tax payers intentionally; TRA has taken a number of measure to address those challenges including; providing press release and adverts through media houses, conduct regular EFD monitoring programs.

5.2 Recommendations

Electronic Fiscal Devices (EFDs) have been showing positively considerable difference especially in the area of value-added tax (VAT) collections. EFD has led to an increase in domestic VAT from TZS 727797.4 million realized in 2009/10 to TZS 825835.3 million in 2010/11 which is an increment of more than 10%. Therefore, EFD has proven to be effective and efficient in facilitating tax collection. Hence strengthening its operation is vital.

Tanzania Revenue Authority (TRA) has to work closely with tax payers to improve efficient of devices including strengthening awareness creation to tax payers (traders and customers) as well as conducting regular workshops and seminars. This should go in parallel with the reminders and adverts through media houses on the importance of issuing EFD receipts. Further, regular monitoring of EFD usage should be conducted to ensure traders issue receipts after they sale as well as customers should request for receipts after buying. Further, monitoring will help for

TRA to identify existing challenges faced by tax payers and provide/seek solution or to know what and how to upgrade/reform the system.

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APPENDIX

KEY INFORMANT GUIDE

1. How do you know EFDs?
2. What is the importance of EFD in VAT revenue collection?
3. How EFDs does improve tax compliance in Tanzania?
4. What are the challenges of using EFD machines for both users and the authority
5. On your opinion(s), what do you comment on the usage of EFD machines for tax revenue collections in Tanzania.