

**CHALLENGES FACING THE ADOPTION OF ELECTRONIC
FISCAL DEVICES (EFDs) IN REVENUE COLLECTION:
A CASE OF MOROGORO MUNICIPALITY, TANZANIA**

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FISCAL DEVICES (EFDs) IN REVENUE COLLECTION:
A CASE OF MOROGORO MUNICIPALITY, TANZANIA**

By

Delphine Cornel

**A Dissertation Submitted to the School of Business in Partial fulfillment of the
Requirements for the Award of Master of Business Administration (MBA) of
Mzumbe University**

2017

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by Mzumbe University, a dissertation entitled; *'Challenges Facing the Adoption of Electronic Fiscal Devices (EFDs) in Revenue Collection: A case of Morogoro Municipality;* in partial fulfillment of the requirements for award of Masters of Business Administration of Mzumbe University.

Major Supervisor

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ACKNOWLEDGEMENT

Once someone realizes a certain achievement, it is not unusual for the person to be delighted and proud. This applies on my side as well, I have come to notice the efforts and troubles taken to accomplish this study have come to an end. Yet, the achievement of this dissertation is a result of determinations of collective individuals whom my delight will be meaningless if I do not address to them my heartfelt appreciation for their mentoring and support.

Glory to the Almighty God for He granted me a chance and enabled me to implement this study.

Special gratitude to my supervisor Dr. Emmanuel J. Chao for his exceptional supervision, advice, assistance and constructive criticisms his vast knowledge and skills are the results of the success of this dissertation, may God bless you.

My heartfelt thanks are also conveyed to my precious family members individually, especially my mother and my foster mother for their perpetual prayers, financial support, moral support and inspiration. This also goes to my friends and classmates for their recommendations and reassurances, may God bless you all abundantly.

My sincere appreciation also goes to the management of TRA-Morogoro and the Morogoro Municipal Council for allowing this study to be conducted in their context. They also provided me with necessary materials and information required for the study.

I'm also grateful to all the respondents who provided helpful inputs to this study through answering the questionnaires and verbal interviews; their collaboration rendered during data collection is highly appreciated.

LIST OF ABBREVIATIONS AND ACRONYMS

CPA	-	Certified Public Accountant
DoI	-	Diffusion of Innovation
EFD	-	Electronic Fiscal Device
EFP	-	Electronic Fiscal Printer
ESD	-	Electronic Signature Device
ETR	-	Electronic Tax Register
GPRS	-	General Packet Radio System
GSM	-	Global System for Mobile
HoD	-	Head of Department
HoD3	-	Three Heads of Departments
HoD4	-	Four Head of Departments
ICT	-	Information and Communication Technology
IMF	-	International Monetary Fund
POS	-	Point Of Sale
RA	-	Revenue Authority
SCD	-	Sales Control Device
TRA	-	Tanzania Revenue Authority
TV	-	Television
VAT	-	Value Added Tax
ZRB	-	Zanzibar Revenue Board

ABSTRACT

The purpose of this study was to assess the challenges facing the adoption of Electronic Fiscal Devices (EFDs) in revenue collection in Morogoro Municipality. Specifically, the study was meant to examine the availability of EFDs to Tax payers in Morogoro Municipality; to study the capacity of traders on the use of EFDs and to examine the attitude of traders towards use of EFDs. The study employed both deductive and inductive research approached in collecting and analyzing data.

Based on the findings, the study concluded that in Morogoro Municipality, there is insufficient availability of EFDs as there are some areas that have not been located with EFDs suppliers. Although suppliers do train traders on how to use the gadgets before their installation at traders' business premises, traders are not acquainted adequately on how to use the EFDs properly. Due to insufficient number of suppliers, traders do not get immediate technical support when they get problem with the devices, also there is no reliable power and internet connectivity in Morogoro Municipality. Lastly, traders in Morogoro Municipality have negative attitude toward the use of EFD machines, number of them claimed that, EFDs are very expensive devices for them to afford.

The study recommends that, TRA should take remedial measures to ensure that there is a sufficient number of agents supplying EFD machine in order to lessen or remove the problem created by few number of suppliers in Morogoro Municipality. TRA should introduce EFDs that could work offline and when the network is stabilized TRA should be able to retrieve the records of transactions that were done during the network failure. That TRA should hire the devices that use rechargeable batteries or use solar energy to solve the problem of power failure. Lastly, to lower the burden of purchasing EFDs, the government through TRA should lower their price, subsidize the EFDs, their payments could be ventured in small installments, or execute a certain rate that will be charged at the time of filing the returns that will cease after finishing to pay for the device. This will work as a motivation of using those devices as traders will not feel the burden on acquiring the devices.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the problem

Government revenue is very important for the development of any country, since the revenue generated by the government is used for provision of different social services. For example, the government revenue has been used for construction of public schools, roads, hospitals, bridges, buying medicines in hospitals, paying salaries for public workers, and ensuring security and defense in the country. Thus, revenue is crucial in ensuring the smooth execution of the government activities (Ndunda et al., 2015).

Corruption and poor methods employed in collection of government revenue both in developed and developing countries resulted in many governments 'failure to generate enough income to improve social services in their respective countries. Therefore, the invention of Electronic Fiscal Devices (EFDs) was inevitable to ensure accurate reporting of tax collection to Revenue Authorities (RAs). EFDs were firstly introduced in Italy in the year 1980, later on in other countries in Europe and Asia, such as Russia, Poland, Bulgaria and Serbia, Albania and Georgia adopted the technology. In Africa, the compulsory use of EFDs was accelerated in 2000s the Revenue Authorities of countries like Kenya, Ethiopia, Tanzania, Rwanda, Malawi, Uganda, Zimbabwe, Mauritius and Zambia joined the electronic gadgets league (Kerever, 2008).

In Tanzania, Electronic Fiscal Device (EFD) was acquainted with Value Added Tax enlisted brokers under the Value Added Tax Regulation, of 2010 - Subsidiary Legislation, Government Notice No.192 distributed on May 28, 2010, and cherished in the Finance Act 2010 with the principle point of upgrading VAT compliance in Tanzania. Tanzania Revenue Authority's new Electronic Fiscal Device system got to be powerful on July 1, 2010 (TRA, 2014).

TRA began to execute the second stage (Post Pilot) of Electronic Fiscal Device (EFD) in 2013 with the point of boosting income accumulations. Execution of the second period of EFDs incorporated businesses that are not Value Added Tax (VAT) enrolled with a turnover going from TZS 14 million or more for every year; for example, Spare Parts, hardware, Supermarkets, Petrol stations, Mobile telephone shops, Sub discount shops, Bar and eateries, Pharmaceutical Stores and Electronic Shops.

TRA continues with its third corporate arrangement concentrated on cutting edge and successful strategies for income accumulations with the goal to meet the nation's spending income targets. The tax base in Tanzania as in most African nations is narrow to a great degree. In this way, the endeavors to build assess incomes have concentrated on shutting the tax collection crevice and growing the duty base (TRA, 2016).

The question on the effectiveness of EFDs is considered very important as without enough revenue collections, it becomes difficult for the governments to successfully bring development to their respective countries. Despite the fact that TRA has recorded an increase in value Added tax under the use of EFDs. The general rate of increase of revenue was less than TRA's expectations, since during the financial year 2009/2010 before the devices were introduced the collections were TZS 785,882 million. Comparatively during the financial year 2010/2011 when the devices were introduced, the Authority only managed to collect Tshs.791,462.90 equal to 0.71% which was below the expected level of increase of 20% of GDP (TRA, 2015).

1.2 Statement of the problem

Despite the introduction of the EFDs, the revenue collections has yet met TRAs target of reaching 20% of GDP (TRA, 2015). Also, Fjeldstad and Heggstad (2011) indicated that currently the Tanzania tax collection is 14.2% of the GDP, which is less revenue collection compared to Mozambique 15.4% and Zambia 15% per GDP. Majority of the studies reviewed, such as Weru et al (2013), Pandu (2012), Chege (2010), Taye (2011) and Bakar (2014) focused on the effect of EFDs on revenue collection, effect of ETR on improving revenue collection, impact of utilizing the EFDs on VAT collection.

Thus, leaving the gap on the challenges facing EFDs in revenue collection. Therefore, the researcher was eager to assess the challenges facing the adoption of Electronic Fiscal Devices (EFDs) in the revenue Collection in Tanzania, using Morogoro Municipality as a case study.

1.3 Objective

1.3.1 General objectives

The main objective of the study was to assess the challenges facing the adoption of electronic fiscal devices (EFDs) in revenue collection in Morogoro Municipality.

1.3.2 Specific objectives

- i) To examine the availability of EFDs to traders in Morogoro Municipality.
- ii) To determine the capacity of traders on the use of EFDs
- iii) To examine the attitude of traders towards the use of EFDs.

1.4 Research questions

- i) Are EFDs available to every trader?
- ii) Do traders in Morogoro Municipality have capacity to use the EFDs?
- iii) What is the attitude of traders towards the use of EFDs?

1.5 Significance of the study

The study was expected to be helpful to TRA management as it will help them review the revenue collection system and obtain reliable information as a result of formulation of new policies, strategies and improvement of the settings of revenue collection. Also, research findings were expected to be useful in improving efficiency of EFD machines to increasing revenue collection in Tanzania. This study was useful to the researcher since it served as the partial fulfillment of the requirement for the award of the Degree of master of business administration in corporate management (MBA–CM).

1.6 Scope of the study

This study was conducted in Morogoro Municipality, specifically on assessing the challenges facing the adoption of electronic fiscal devices (EFDs) in revenue collection. Traders and respondents from the following TRA departments were involved in the study: Department of Domestic Revenue, Department of Customs and excise, Department of Large Taxpayers and Department of Tax investment.

1.7. Organization of the Dissertation

The research consists of six chapters: Chapter One presents the background of the problem, statement of the problem, objectives of the study, research questions, significance of the study, scope of the study and limitations of the study. Chapter Two entails the theoretical review and empirical review of previous studies. Chapter Three entails research design, study population, sampling techniques, sample size, data collection methods, validity and reliability of research instruments, data analysis techniques and ethical consideration. Chapter Four presents the findings of the study. Chapter Five discusses the study findings. Chapter Six contains the summary, conclusions, recommendations, limitations and areas for further studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The review of literature is critical in any research work (Kombo & Tromp, 2006) since it helps the researcher to familiarise with debates and understandings, also research on the theme under investigation. Information and understanding that were gained from literature review helped to sharpen the research objectives, questions, methodology and approaches to data analysis. The chapter is organized in three sections. The first section reviews the theoretical literatures, while the second section reviews the empirical literatures on the adoption of EFDs in revenue collection. The third section describes the conceptual framework of the study.

2.2 Theoretical Literature Review

2.2.1 Concept of Key Terms

i. Electronic Fiscal Device (EFD)

Martinet al. (2010) defined Electronic Fiscal Device (EFD) as a technological device that helps the revenue administrations to monitor business dealings. These devices include those electronic intelligent covers that customs and excise department uses to monitor container traffic and fiscal control. Also the devices in the customs and excise department are used to control excise taxes through monitoring the production and delivery of excisable goods. Also, Naibei and Siringi, (2011) defined EFDs as the tools that are normally used by the tax authorities to monitor business dealings that create a fiscal requirement for the sales tax or the Value Added Tax (VAT) these are basically the taxes on consumptions.

In this study EFDs have been defined as electronic gadgets designed to be monitoring and control business transactions for efficient sales analysis and stock control system, which conforms to the requirements specified by the law of a given country.

ii. Government revenue

Government revenue is the income generated or received by Government from different taxable sources and non-taxable sources. Taxable sources such as Taxes levied on the income and wealth accumulation of individuals, businesses and on the goods and services produced exports and imports. On-taxable sources such as income generated from Government-owned Corporation, Central Bank revenue and capital receipts in forms of grants, external loans and debits from international financial organizations/institutions.

ii. Z report

Z report refers to the sales report sent to the Revenue Authority through theEFDgadgets when a trader or a Tax payer closes the business deal (TRA, 2014).

2.2.2. Theoretical Framework

This section in particular, presents a review of the theories that guide this study. Planned behaviour theory, Deterrence theory, Unified theory of acceptance and use of technology and diffusion of innovation theory, theories were used to explain the adoption of EFDs in revenue collection.

i. Planned Behavior Theory

The theory of Planned Behavior (Ajzen and Fishbein, 1980) tries to explain about human behavior. According to this theory, the behavior of individuals within the society is under the influence of certain factors originating from certain reasons and emerges in a planned way. The ability to perform a particular behavior depends on the fact that individuals have a purpose towards that behavior which depends on three factors that is; attitude towards the behavior, subjective norms and perceived behavior control.

The theory is basic and can be applied in many different situations. Therefore, it was relevant to this study, as the study desired to know why traders behave in a certain way towards EFDs adoption and implementation. Also the theory shows that perception of a person's social surroundings which makes him or her perform a certain action when it comes to adoption of new innovation. Ajzen and Fishbein, (1980) argue that in general if a person feels positive about a certain choice and people around this person that are regarded as important to him or her also feels positive about that choice, the person will most likely perform this choice which seems very logical, but explains a fundamental thought process of an individual that is important to understand when studying behavior and the adoption of new innovations. Thus, with the planned behavior theory, the study was able to reflect the extent to which peoples' behavior determined the effectiveness of EFDs in revenue collection (Mengere, 2013).

ii. Deterrence Theory

According to deterrence theory, people critically examine the possible loopholes and risks. They violate the law when they find out the projected fine and the probabilities of being caught are low in relation to the projected profit, Pilkington (1998). Deterrence theory suggests that a major Tax payer would evade tax to maximize their own self-interest by performing a cost benefit analysis, comparing the advantages of evading tax with the penalties of being caught. Moreover, other theories show that fear of being caught is a major motivating factor for Tax payers to comply with the law. One of the earliest attempts to model Tax payers' compliance was done by Allingham and Sandmo, (1972). The model suggested the inherent result that Tax payer reported more income in response to either an increase in the probability of being detected, or an increase in the penalty imposed on those who are caught (Plumley, 1996). Therefore this theory reflected the extent to which Tax payers determined Electronic Fiscal Devices as strategies for collecting more revenue.

iii. The Unified Theory of Acceptance and Use of Technology

The Unified Theory of Acceptance and use of Technology identify 4 key determinants that can be used to predict and explain user acceptance of information technology.

Performance expectancy is the extent to which an individual believes that adopting technology will bring positive results to his performance hence success to his or her job. The performance expectation can be evaluated in relation to the time spent when undertaking a task, quality of the output produced, quantity of the output produced and effortlessness at which the technology can be used. Expectation that one will be perceived competent by workmates and that the use of technology will increase chances of getting promoted or pay raise can also contribute to acceptability of a system by user (Venkatesh et al., 2003).

Effort expectancy is defined as the degree of simplicity associated with the use of the technology.” Users will consider the extensiveness and duration of training expected in order to learn how to use the technology and whether the user can perform the exact task he or she wants. The user interface which would be expected to be friendly and flexible and the amount of time the technology may take running other tasks rather than the core job are factors users would consider. Where the technology is at any time perceived difficulty or the user expects to be spending much time performing routine operation, the acceptability would be minimal (Venkatesh et al., 2003).

Social influence is described in the model as “the degree to which a person perceives how important others believe he or she should use the new system.” This involves user accepting the technology because other people thinks it is important to the user, or use the technology just because some workmates use it. The acceptability may also be influenced by the level of support shown and given by the senior management and immediate supervisor to the user. When the user perceives use of the technology as a status symbol in the organization, undoubtedly one will likely accept and use such a technology (Venkatesh et al., 2003).

Facilitating condition is defined as “the degree to which a person believes that technical and organizational infrastructures are there to support the use of the technology”. The availability of resources required by the user to use the technology, the compatibility of the technology with other existing system, necessary knowledge to use the technology,

help to resolve technology difficulties and whether the technology is compatible with user's way of performing tasks are some key factors in the model that may influence technology acceptability by users (Venkatesh et al., 2003).

iv. Diffusion of Innovation Theory (DoI)

Rogers, (1995) confirms that, enthusiasm on this theory was elevated when the study of ICT adoption in healthcare was conducted. Berwick, (2003) suggests that, mainly there are three sources inducing the adoption and diffusion of an innovation: characteristics of perceptions of innovation, characteristics of the adopter, and contextual factors. Numerous empirical studies suggests that, perceptions of the characteristics of an innovation are the most critical factors for its diffusion. Rogers, (1995) have identified five perceived characteristics of innovation:

1. *Relative advantage* degree to which innovation is perceived as better compared to the state of affairs existed,
2. *Compatibility* the degree to which the innovation is perceived as being consistent with existing values and practices among potential adopters,
3. *Complexity* the degree of difficulty perceived regarding the use of the innovation,
4. *Trial ability* represents the possibility for a potential adopter to experiment the innovation on small scale, and lastly
5. *Observability* the degree to which the results of the innovation are visible to potential adopters.

The DoI suggests that contextual factors, such as organizational culture, resources and leadership, influence the rate of diffusion of innovations.

2.2.3. Process of Adoption of EFD in Revenue Collection

Fichman and Kemerer (1999), Zahara and George (2002), Cooper and Zumd (1990), Rogers (1995), Meyer and Goes (1988) confirms that the process of adoption consists of the following stages:

i. Knowledge or Awareness

This is the stage at which traders are adjusted to the existence of the EFDs. This does not mean that the potential adopter is interested or curious about the EFDs, they simply notice the existence of the EFDs. (Meyer and Goes, 1988).

ii. Evaluation/Choice/Interest

The stage where by traders are inquisitive on how EFDs could be integrated into the system of revenue collection. At this stage TRA employees and traders or Tax payers begin to accumulate information about how EFDs might affect in prevailing system of revenue collection. Some prospective adopters try to evaluate if the possibilities of adopting EFDs will be appropriate to their existing business environment (Rogers, 1995).

iii. Adoption

The traders or TRA is said to reach the third stage if he or she has bought or started to use the EFD. However, there are various forms that traders or TRA could adopt the EFD, from pilot programmes and standalone operations to organization-wide distribution (Cooper and Zumd, 1990).

iv. Assimilation/ Routinization

The stage at which the EFDs are adopted and widely integrated into revenue collection system. This indicates that EFDs have been accepted as reliable for TRA to use in revenue collection. Therefore the major differences between this stage and the third stage are the scope of adoption and the source that EFDs have been adopted. Fichman and Kemerer, (1999) claim that, to reach this stage not only the wide spread adoption is needed but also time, familiarity and some comfort with the device is the requisite.

v. Infusion

At this stage researchers confirms that the EFDs has gone milestone as being used as an individual technology rather it is considered as an essential part of revenue collection; the traders have been equipped on how to apply EFDs beyond the intention or the scope

of the original purpose of EFDs to meet other duties that TRA execute apart from those involved in revenue collection (Zahara and George, 2002).

2.2.4. Revenue/Tax Collection Requirements

Three factors are viewed as vital to improve income accumulation handle as indicated by Mahdavi (2008); a) ideal rate structure; b) fitting standards and controls – as great directions and; c) human asset limit. In any case, to build control keeping in mind the end goal to decrease spillage, Garde (2004) encourages the legislature to play out a few or the greater part of the accompanying activities; a) Surprise review to supplement self-appraisal methods; b) Improving the control procedure; c) Efforts to implement a strict and substantial punishment for rebelliousness; d) Administrative impart to money related staffs that may have added to spillage in income; e) Efforts to connection charge installment with administrations gave by neighborhood government.

2.2.5 Tanzania Tax Administration

In order to strengthen the fiscal policy, TRA was introduced and started to operate in July 1996. TRA is responsible with the assessment, collection and accounting of Central Government Revenues. The Constitution of the United Republic of Tanzania recognizes the two parties of the union, namely Tanzania islands (Zanzibar) and Tanzania Mainland. The Constitution has differentiated tax charged under the union and tax charged independently of each side (non-union taxes). From the side of Mainland Tanzania, TRA collects the Union taxes, while the Zanzibar Revenue Board collects all non-union taxes in Zanzibar. UNION Taxes are taxes on income imposed under the Income Tax Act 2004 Cap. 332 revised edition 2008 and Custom duties under the East Africa Customs Management Act 2004 revised edition 2011. NON-UNION taxes are taxes on domestic consumption, including the Value Added Tax under the Value Added Tax Act 2014, Excise Duties, Hotel Levies, Stamp Duties, Motor Vehicles Taxes, and other charges (Tanzania Revenue Authority Annual Report, 2004). According to TRA the collections have been raised from about 1,575 million to 3,742 million US Dollars

from the financial year 2004/05 to 2009/10. Also in this range of years the GDP ratio has amplified from 10.8 percent to 14.6 percent.(TRA Annual Report, 2011 pp 19).

2.2.6. Tax Administration Reforms in TRA

Some years back, when the need to undertake rational and comprehensive reforms were essential, the TRA adopted a Tax Administration Reform and Modernization Programme whose primary objective was to modernize and integrate its operations in line with in international best practice of tax collection (Tanzania Revenue Authority EFD Manual, 2010). In enduring this programme, TRA has employed the following crucial measures aimed at improving revenue collection and service delivery to Tax payers;

- i. Placement of the Essy cuda System in the Customs Services Department
- ii. Installation of X-ray Cargo Scanners at the Dar es Salaam Port;
- iii. Implementation of a function-based organization structure rather than a tax-based organizational structure in order to offer continuous service to Tax payers and enhance revenue collection. The EFD programme is one among many tax administration reform measures that TRA has deployed.

The EFDs were introduced to ensure the sales are properly recorded by registered Tax payers in the country. This initiative, which initially focused on improving compliance with VAT requirements, has the capacity to boost revenue collection in this field, as is the case in other countries where it has been used. The institution of EFD is expected to add value in the revenue collection system because much of the VAT monies that Tanzanians pay over the shop counters never reach TRA, instead the money ended up in the pockets of unfaithful traders. This is obviously an unfair situation because apart from Tax payers being tricked into paying taxes that end up in private pockets, the government is denied the resources necessary to facilitate service delivery improvement to its people. Value Added Tax (VAT) applies to most transactions at 18 percent. Businesses with annual return of Tanzanian Shillings 40 Million and above must register for VAT, but in some cases registration is obligatory regardless of the turnover. Exports, some agricultural inputs, medicines, educational equipment, petroleum products, gas,

kerosene, maize flour, milk and newspapers are zero-rated. Exemptions to VAT include live animals, most foodstuffs, financial services (subject to certain exceptions), insurance, passenger transport, entertainment (subject to certain exceptions), and the rental and lease of land and buildings (VAT Act, 1997 as amended by Finance Act, 2009).

2.2.7. Electronic Taxation

It is advised that, one should start with a review of electronic taxation when conducting a theoretical literature review, where by the correlation between efficiency, the method of processing tax returns and the system of tax collection adopted by the Tax payers is one of the mysteries that is still unsolved up to date. Allingham and Sandmo (1972) introduced the portfolio method to resolve the individual tax cost problem and showed that, under weak tax processing systems, a number of costs are suffered. There are number of mysteries that could be identified to be faced by the Tax payers in processing their VAT returns using EFDs. Such issues include; Time taken in processing VAT returns, Tax preparation costs, staff costs required to process returns and advanced revenue capture enhanced by precise data entry, stationary costs in form of paper rolls used to generate EFD receipts, writing materials, files and filing of tax returns systems, Costs that are incurred in processing tax refunds, costs of auditing sales records, Insurance costs for the EFDs, space for keeping past data records, and prosecution and refund follow up time and costs. Not with standing over flowing developments in recent years in information technology concerning automated data capture, the administrative and Tax payer compliance burden associated with large-scale invoice matching should not be overlooked (Amitabh et al., 2009).

Recent diagnostic review of invoice cross-checking systems has shown that these systems continue to generate considerable unproductive work. For instance in Thailand, the International Monetary Fund (IMF) noticed that, a substantial number of large Tax payers comprised of expert auditors were engaged in checking and following-up invoice disagreements reported from the invoice matching system.

Examination revealed that many of the disagreements were related to data entry errors (for example errors in Tax payer identification numbers and addresses), thereby creating on-revenue related administrative costs.

In Tanzania, for claims of refund exceeding a specified amount as stipulated under the VAT Act must be certified by a registered Certified Public Accountant (CPA). The law enforces sanctions on Certified Public Accountant who knowingly certify false claims. Braithwaite, (2001) confirms that Tax authorities, traders, and accounting professionals are all against this approach that it has no benefits. On the other hand the Tax officials argue that it helps eradicate fraudulent claims, and lessens administrative costs. Officials report that refund claims by exporters has gone down by 20 percent following the introduction of the scheme. They argue that many firms had been presenting false claims. By placing the answerability on CPAs to certify the legitimacy of refund claims, the government has in effect outsourced, in part, its verification programme. Large exporters support the arrangement because it speeds up refunds, and for this they are willing to bear the increased compliance costs. CPA firms are also fortunate as this creates opportunity to service fees.

Automation is not an end in itself, but a crucial component of taxation reforms, which aims at modernizing tax administrations and aligning the legal framework and procedures with international standards and best practices. Automation speed up the clearance of legitimate trade also strengthens the security in revenue collection and efficiency of taxation controls. In addition, it helps address expectations of traders and transport operators regarding transparency, predictability and reliability, as well as the simplification of border-crossing and administrative procedures. Pre-condition for a fruitful reform is a strong commitment on the part of the Government and key stakeholders. The premises and equipment necessary for automation may include new or rehabilitated offices, hardware, software, internal communication systems and connections to external networks. Automation also may require a set-up of wireless networks. Furthermore, the introduction of ICT needs to be accompanied by extensive capacity building (IMF, 2005).

2.2.8. Strategies used to Minimize Tax Evasion

In order to strengthen the controls over tax matters, in the year 1996 Tanzania through TRA introduced a major reform. Since the Authority has been formed its effectiveness has been vibrant in tax collection, on the other hand there still is a substantial increase of tax evasion techniques. Tax avoidance and tax evasion weakens the capacity of a government to increase revenue in an equitable and efficient manner. Non-compliance is likely to reduce both the efficiency and equity of an economic system, and will have effects beyond the simple act on non-compliance to ensure the integrity of the tax system, it is important to identify and cover the discrepancies that make a room for tax avoidance and tax evasion, and to uphold strong enforcement. Since 2010, the Tanzania Revenue Authority (TRA) has set on a comprehensive strategy of applying the Electronic Fiscal Devices Regulation aimed at regulating tax evaders registered under the value added tax (VAT) (Gupta, 2006).

2.2.9. Factors leading to the Effectiveness in Revenue Collection using EFDs

According to IMF (2005), the following are factors leading to the Effectiveness in Revenue Collection using EFDs:

- i. Users of Electronic Fiscal Devices are the Tax payers registered with VAT as required by law. They are required to use EFD machine for issuing receipt to customers. The effectiveness of the EFD depends on the willingness, awareness and the competence of the EFD users to deploy devices in issuing receipts to customers.
- ii. Tanzania Revenue Authority TRA plays a greater role by ensuring that all Tax payers who qualify for registration are registered and after registration TRA ensures all registered Tax payers are using EFDs for issuing receipt as required. Also TRA do monitor the registered Tax payers after having the EFDs by conducting physical survey which involves surprise visit to Tax payers to see if utilization of EFDs by the Tax payer is Effective.
- iii. Approved Suppliers Refers to the persons appointed to supply, sell and distribute the EFD to various users in Mainland Tanzania, install, configure and activate the device

- at users' premises, supply spare parts and accessories to users, train users on the best way of administering EFDs, support and maintain the supplied devices at users' premises and ensure smooth operation.
- iv. ICT Support ensures that EFD data are directly transmitted to TRA servers thus facilitating smooth operations of TRA in monitoring the registered Tax payers by preparing analysis on the verification of Z reports against VAT returns to transpire the compliance of the Tax payers with tax laws. Also through ICT Support, the link between TRA, service providers and users would be strong hence TRA would obtain reliable information of the Tax payers.

2.2.10 Overview of Electronic Fiscal Devices

A. Origins of the Cash Register

The tendency of employees stealing from his shop triggered the idea of James Ritty inventing the so called "Incorruptible Cashier" in 1879 this was later named as the cash register. The register was designed with features such as sales display, summing up figures, a sales ring up and recorded all sales that were to be made during the day. The design was improved in the year 1884 to incorporate a receipt outlet from a paper roll. Finally in the year 1906 the electric motor was added to the features of the device that resulted to a device that is modernly used as a common first electronic cash register (Braithwaite, 2001).

B. Types of Electronic Fiscal devices

According to Amitabh et al. (2009), the following are types of Electronic Fiscal Devices:

i. Electronic Cash Register (ECR)

Electronic Cash Register is a device used by traders to record sales transactions and issue receipts. It also stores necessary data such as sales, inventories and issues daily sales reports. In the current era, the cash registers are essential computers in many occasions. They are attached to barcode scanners, debit card or credit card terminals and weighing scales. The cash registers are also operating as the Point of Sale (POS) devices.

Amitabh Et al (2009), elucidate that the Point of Sale systems are indispensable with the following functions;

- a) Detect and Scan a product barcode, retrieve the price of that product from a database.
- b) Compute deduction prices for items on sale
- c) Calculate taxes charged (if any) on sale of an item.
- d) Determine differential rates for preferred customers
- e) Maintain records of unsold items
- f) Records the details of the transactions, by stamping the time and the date the item was produced or purchased.
- g) Record the payment system (e.g. by way of cash, debit card or credit card)
- h) Keep detailed records of all items sold (code number of the item, name of the item and the specified total sales figure). It also performs other tasks tailored to the needs of a business owner.
- i) POS terminals will often identify the name of the cashier on the counter, the name of the customer and additional information or offers.

Figure 2.1 Electronic Cash Register



Source: TRA (2013)

ii. Electronic Tax Registers (ETRs)

ETR is otherwise known as Electronic Fiscal Cash Register (EFCR). It is a cash register which has a fiscal memory. Fiscal memory is a read only memory built in the device to store Tax related records at the time of sale. The device is commonly used by retail outlets that issue receipts manually. The ETR can be used as an independent device since it stores all transactions in a fiscal memory and print retail receipts by using a built in printer. But it can also be configured to a network.

Features of ETRs.

ETR performs similar functions as those of the ECR, but the ETR has only one notable key characteristic that is, it is embedded with a fiscal memory that detains important Tax information such as Tax rates, Tax charged and classification of goods sold. It has strong security features such as Seal, memory, serial number and special technical specifications tailored to the customers' needs. The information captured in the device cannot be erased or reset when destructed by power cuts. Access to its information is strictly granted to authorized personnel with distinguished password at the Tax Administration Centre.

The Tax authority downloads that information in details for verification and analysis. The process of downloading does not temper with the stored fiscal data.

ETRs could or could not be enabled by General Packet Radio (GPRS) that means the devices are empowered to transfer fiscal data over the mobile telephone network. GPRS permits the Tax administration or ETR vendor to remotely access the ETR for software updates, or transfer of information, for instance, to report daily aggregates or fault incidences. These modern gadgets permit the Tax administration to acquire the data without the physical presence of the Tax officials at the point of sale.

Benefits of ETRs

ETRs have an independent and perpetual memory that cannot in theory be acquired and or possessed by anyone other than the TRA. Any attempt to temper with the memory will be visible through the use of anti-tampering devices like seals.

Limitations of ETRs

ETRs normally cannot process compensations, or business dealings for returned goods. The devices are tailor made for retail outlets and distributors of petroleum products.

Figure 2.2: Electronic Tax Register



Source: TRA (2013)

iii. Electronic Fiscal Printers (EFPs)

EFPs are high speed printers connected to the network of other computerized device. For instance it is connected to an existing electronic cash register to provide the fiscal receipt, as well as maintain fiscal information for the Tax administrations. It stores in its independent fiscal memory, the records of every sales dealings at the time of issuing the receipt to the customers. EFPs possess all sorts of securities as those of the ETRs. EFPs have a fiscal independent memory that can only be accessed by the revenue authority. Any attempt to temper with the independent and separate memory should be visible through the use of ant-tampering devices maintained at the authority, commonly known as seals. EFP is commonly hired by computerized retail outlets. As the device user prints the receipts to his/ her customers, the device stores the records of the transactions in its fiscal memory. Example of users of EFPs includes Petrol Stations, Supermarkets, and Ticket brokers.

Benefits of EFPs

Fiscal printers are possibly the cheapest fiscal device of them all. EFPs are of high speed. It has its independent fiscal memory that records every sales dealing at the time of issuing the receipt to the customers.

Limitations

Electronic Fiscal Printer is not a stand-alone device, it is a supplement of other types of sales recording devices. For example it is connected to an existing ECR to issue a receipt.

Figure 2.3: Electronic Fiscal Printers



Source: TRA (2013)

iv. Sales Control Device (SCDs)

Characteristics

Sales Control Device (SCD) incorporates the features of an ESD with the setup of the external fiscalized memory.

Benefits

SCD offers all the benefits of an Electronic Signature Device, making an easy way of measuring the authenticity of the information provided on the receipt. The needed receipt information is secured in the control unit. In this regard SCD reduces the need to install other fiscal gadget sate very register terminal.

Limitations

The devices are specifically designed for large enterprises. The use of the SCD might be stalled by the requirement of using the ESD, distinguished unique Passwords or code bars provided by the revenue authority or authorized dealers. The requirement for unique identifiable signature depends on acceptability of the community to adopt to the era of fast growing e-commerce.

Figure 2.4: Sales Control Devices



Source: TRA (2013)

v. Electronic Signature Devices

Characteristics

An ESD is a device that provides a distinctive “signature” to receipt, bill or invoice issued to customers. This signature appears as hexadecimal (that is, base 16) “hash” on a

printed invoice/receipt. ESDs are used in the environment of computerized transactions. The encryption depends on a chain of a mathematical processes applied on the invoice. By using the ESD all signatures are unique, any attempt to alter the invoice after it was produced will produce a new signature and considered as another transaction.

Benefits

ESDs provide an extra security level of invoices issued. The inclusion of a digital signature in the invoice provides an extra level of authentication. The carbon copy of the digital signature is left in the dispensing gadget, any invoice can be validated for authenticity based on the unique signature left in the machine.

Limitations

The ESD require separate devices to record the sales information hence it is not a stand-alone device rather a dependent one. It works hand in hand with the EFPs. ESDs are mostly suitable in medium-sized business or retail situations where there is a likelihood of returned scales.

Figure 2.5: Electronic Signature Devices



Source: TRA (2013)

2.2.11. Advantages of EFD on Revenue Collection Process

a) Provides business security to dealers as all data into the machines are saved into the fiscal memory, subsequently can't be deleted or changed; brokers can monitor all business exchanges. Likewise, give affirmation that the expense on the receipt issued has been dispatched to the legislature.

b) Enhance decency in expense evaluation as all assessed data is transmitted to TRA framework naturally henceforth diminishes protests and debates amongst TRA and citizens. Additionally, gathering of more income because of promising accessible data of the citizens spending.

c) EFDs enhance the impose of information security and minimize the utilization of parallel and fake receipts, guarantee simple access of online expense data and fast reaction to deviation or acts of neglect over the machine, encourage productive time administration and consistence observation, encourage recovery of satisfactory data of different charges, minimizes assess question and disentangle assess discounts and controls will thus expand income accumulation of a base cost in a successful way (Usher, 1986).

d) EFDs minimize contacts between revenue collectors and Tax payers or their operators, and thus prompt to a decreased corruption. Encourage benefits accomplished through robotization, incorporate enhanced reporting, control of record exchanges, programmed compromise of government forms, and consistence testing of bank documents. Paperless announcements and mechanization spare time and make it simpler to concentrate on assessing high-hazard exchanges. The likelihood of submitting expense forms assertions on-line has made it conceivable to decrease the related charges; in different cases it has killed the mandatory contracting of VAT operators (Brown and Mazur, 2003).

2.2.12. Challenges Facing TRA in the Use of EFDs on Revenue Collection

According to Chijoriga, (2012) TRA is faced with the following challenges in Revenue collection by means of EFD machines:

- a) Some EFD users delay in reporting the EFD issues to EFD suppliers in spite of the law. Likewise, some EFD providers delay in serving non-working EFDs on time, in opposition to EFD control.
- b) There are telecommunication infrastructure constraints, especially in remote areas, also power breakdown, whereby traders fail to recharge their devices.
- c) Claiming of undeserved VAT input assessed by dishonest merchants utilizing phantom monetary receipt in opposition to the law
- d) Little or no culture among Tanzanians of requesting financial receipt for each buy produced using their affiliates.
- e) Reluctance by a few dealers to issue amended monetary receipt for a few deals, making a potential for income misfortunes to the administration. Likewise, exchanges have been opposing procuring and utilizing EFDs.

2.2.13. Relationship between EFDs and Revenue Collection

As the number of EFD increases, the revenue collection is also expected to increase. The uses of EFD machines make the process of issuing Tax invoice and receipts easy. The machines also simplify VAT collection process to TRA and more sales transactions are recorded leading to more revenue being collected. Revenue claims are also required to be supported by fiscal receipt, making the use of the machines eliminate the submission of fake claims by traders. All these controls lead to increased revenue collection volume. As the number of EFD increases, TRA put many efforts in proper revenue administration including punishment to defaulters of VAT collection (Lumumba et al., 2010).

Every registered trader is required to submit VAT return on or before the last working day of the month following the month of income. VAT returns are currently required to be submitted electronically through E-Filing system available in TRA website. All VAT returns are necessary to be submitted and if the trader has failed to submit them, he/she should pay fines and other penalties. The VAT returns may be showing payment of VAT, repayment of VAT or NIL. Reports generated through EFD machines simplify VAT computations process by Tax payers hence they facilitate timely submission of returns. Atambo, (2012) noted that timely filling of the Monthly VAT returns is credited to many components. A large portion of organizations under his study have encountered convenient recording of VAT returns because of the appropriation of the ETR machines. Along these lines, ETRs have the constructive outcome on VAT returns accommodation (Taye, 2011).

2.3. Review of Empirical Literature

This section reviews various studies related to the use of EFDs in revenue collections. This review is important as Tayie, (2005) noted that it provides information about what was done, how it was done and what results related to the study were generated.

The study by Anna (2006) investigated the Attitudes towards the use of electronic invoicing by financial managers in Small and Medium sized Companies in Finland. By regression analysis, the study revealed that financial managers had positive attitudes towards the use of electronic invoicing.

The study by Mohamed, (2015) examined the Effect of Introduction of Electronic Fiscal Devices on Revenue Collection in Tanzania: A Case of Kinondoni Municipal Council. By thematic analysis his study revealed that Tax payers in Tanzania had accepted and conformed to the requirements of revenue collection and that the use of EFD machines reduced time taken to prepare revenue returns at the end of the month as a result ensured timely filing of monthly Revenue returns. Also, EFDs accelerated monthly revenue returns since its inception.

The study by Omweri and Bernard (2010) assessed the Effectiveness of Electronic Tax Registers (ETRs) in the Collection of VAT Returns in Kenya. By regression analysis, the study uncovered that the utilization of ETR has additionally prompted to enhanced deals for the organizations. Aside from that, it was discovered that ETRs have upgraded income accumulations because of sound deals and stock reviews. Finally, in assessing the adequacy of ETRs in documenting VAT returns at standard interims, it was found that the utilization of ETRs was not a misuse of assets since it has helped the business in various perspectives.

The study by Weru et al (2013) investigated the Effect of the Key Change on the Presentation of ETR for Improvement of Revenue Collection at the Kenya Revenue Authority. By descriptive statistical analysis, the study revealed that ETR framework had upgraded revenue accumulations and Tax compliance in business premises in Nairobi. The system had to a substantial degree fixed the loopholes of Tax avoidance in Nairobi. It was further discovered that the partners were yet to be prepared successfully on the utilization of ETR machines. The system had likewise helped the improvement of Tax compliance. Also, the study has found that the Authority yet encountered a few resistances on changes from both inward and outside clients.

The study by Pandu, (2012) examined the Impacts of Utilizing EFD on the Execution of VAT Accumulation to VAT Tax payers in Dar Es Salaam, Tanzania. By thematic and statistical analysis, the study revealed that EFDs have helped with cutting costs that the business spent on processing VAT. The study concluded that TRA ought to improve the use of EFDs so as to battle Tax avoidance and raise VAT Collection.

The study by Nyasha et al. (2012) investigated the Attitudes of Employees Towards the use of Fiscal Electronic Devices (EFDs) in Calculating Value Added Tax (VAT) in the Motor Industry in Zimbabwe. By descriptive statistical analysis, the study revealed employees in motor industry in Zimbabwe had positive attitudes towards the use of EFDs. Also, fiscal EFDs had positively affected the motor industry through improvements in Tax accumulation; spares time in Tax accumulation, lessened the contact between Tax collectors and Tax payers and consequently minimized bribery.

Additionally, the study discovered that the employees with low educational level thought that it was hard to utilize EFDs, though they accepted that EFDs were helpful for improving Tax collection.

The study by Chege, (2010) assessed the Impact of Using Electronic Tax Registers (ETR) on VAT Compliance in Kenya to the Classified Hotels in Nairobi. By regression and descriptive statistical analysis, the study revealed that there was an increasing VAT collection due to the introduction of Electronic Tax Registers. Since ETR machines were appropriate and more accurate on VAT reporting, they are deemed to enhance VAT collection.

The study by Atambo et al, (2010) assessed the Effectiveness of Electronic Tax Registers (ETRs) in processing the Value Added Tax Returns. The main purpose of this study was to assess the effectiveness of Electronic Tax Registers (ETRs). By regression analysis, the study revealed that timely filing of VAT returns was attributed to the adoption of the ETR machine. The use of ETR has also led to improved sales audit for the businesses. Apart from that, it was also revealed that ETRs improved revenue collection resulting from sound sales and stock audits.

Taye (2011) assessed the Impact of the Electronic Tax Register on Value Added Tax, the case of Addis Ababa City Ethiopia. By multiple regression and descriptive statistical analysis, the study revealed that ETRs had a positive effect on VAT returns and other independent variables had significant effect on VAT income except compliance cost.

The study by Bakar (2014) examined the Impact of Electronic Fiscal Devices on Value Added Tax Collection Process: The Case of Tanzania Revenue Authority in Tanga Municipality. By descriptive statistics and content analysis techniques, the study revealed that in the process of implementing the use of EFDs in Tanga Municipality, the following challenges were experienced by TRA: Regular breakdowns/ malfunctions of the Devices, some external batteries of devices did not last long and they did not have the capacity as expected, resistance by some traders to avoid purchasing and using EFDs and sometime they hold demonstrations, some businessmen issued receipts that did not

show the names of customers and sometimes issued under invoiced receipts, some businessmen failed to submit written notification to the Regional Manager on the failure of their devices, some businessmen submitted VAT returns showing the sales that differ to the actual sales recorded in the machines, some of TRA staff did not have enough knowledge on how to use EFDs, customers did not have the culture to demand receipts while they purchased goods or services, and traders in rural areas experienced weak network signals hence affected the transmission of “Z” reports.

Ikasu (2014) assessed the Challenges Facing the Implementation of using EFD in Tax Collection in Tanzania. By regression and descriptive analysis, the study revealed that EFD system had a lot of encounters that stalled the implementation of using the devices though the improved system of Tax collection in business premises in Tanzania. Those encounters contained consistent network break downs, fairness of Tax estimated from Tax payers, lack of education on the use of EFD machines, maintenance of machines and under pricing of Tax from traders.

The study by Mboma (2012) examined Challenges to Electronic Fiscal Devices Adoption in Tanzania. By descriptive statistical analysis, the study revealed that there were Poor GSM network in most parts of the country; users of EFDs did not send Z Reports on daily basis. High accumulation of fiscal memory resulted in malfunctioning of the devices; because it required users to clear out fiscal memory by sending data to TRA. Also EFDs reduced the Tax-reporting burden on businesses while smoothing the efficiency and effectiveness of government operation, provided timely and accurate Tax information to TRA, increased the availability of electronic Tax filing, and simplified models of state Tax employment laws.

2.4 Research Gap

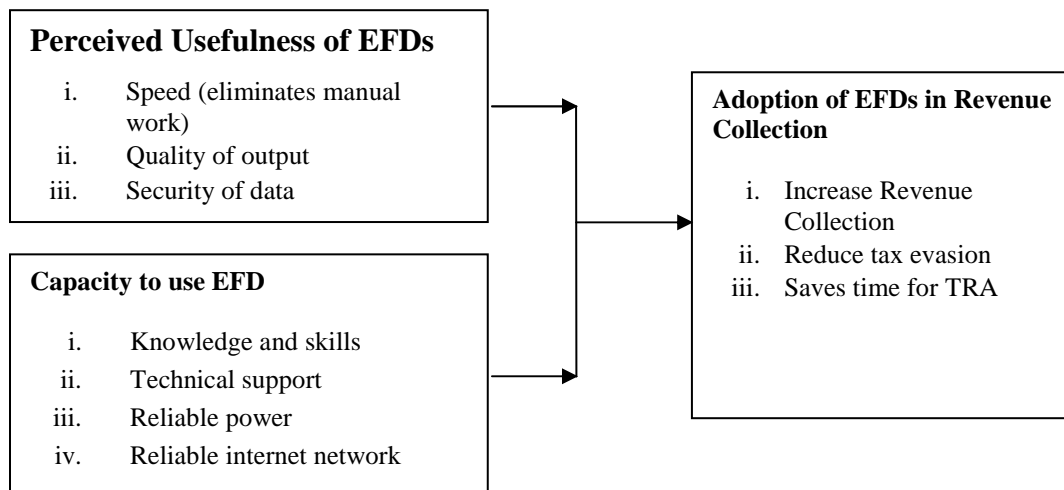
Majority of the study reviewed, such as Weru et al (2013), Pandu (2012), Chege (2010), Taye (2011) and Bakar (2014) focused on the effect of EFDs on revenue collection, effect of ETR on improving revenue collection, impact of utilizing the EFDs on VAT collection in various other locations and thus, leaving the gap on the challenges facing

EFDs in revenue collection in Morogoro Municipality. Therefore, the researcher was interested in assessing the challenges facing the adoption of Electronic Fiscal Devices (EFDs) in Revenue Collection in Tanzania, using Morogoro Municipality as a case study.

2.5 Conceptual Framework

This section presents a conceptual framework from which the analysis of this study was made. The purpose of the study was to determine the adoption of Electronic Fiscal Devices (EFDs) in the revenue Collection in Tanzania, using Morogoro Municipality as a case study. The study developed a framework that indicated a relationship between variables based on the assumptions derived from the reviewed literatures. The framework assumes that adoption of Electronic Fiscal Devices in the revenue Collection in Tanzania is affected by the two factors: Perceived usefulness of EFDs and Capacity to use EFDs.

Figure 2.6: Conceptual Framework



Source: Author (2016)

i. Perceived Usefulness of EFDs

The level of expectations traders have on EFDs can greatly influence their acceptability and use of the EFDs and therefore traders may need to identify how applicable EFDs are in revenue collection (Venkatesh et al.,2003). EFDs can greatly improve the way in

which TRA collect revenue. EFDs implementations can improve the efficiency in revenue collection. EFD systems can be used to store records, which can then be transferred to TRA, also the trader is able to know the sale which had done in a particular day (Hancock and Groff, 2000).

ii. Capacity to use EFDs

Tax payer training is a useful tool which can be used to change the behavior of the Tax payers as well as giving the knowledge about revenue collection through the use of EFD system. Therefore, the Tax payers who have the knowledge about EFDs will have the capacity to adopt EFD system in their business compared to Tax payers who lack knowledge about EFD. Nyashaet al.(2012) argues that in the 20th century business community, technological change has become a crucial mode of operation. The technological change in Tax system has increased the demand of new skills especially to the Tax payer, when the Tax payers fail to get the required skills and knowledge results to being incapable to adopt the new technology. Tax payer training is one of the important and strong mechanisms of upgrading the Tax payers' skills and knowledge to compliment the new technology. There is a strong positive relationship between training and adoption of new technology (Gashi et al, 2008).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology of the study in which the research design, area of study, target population, sample and sampling techniques, data collection methods, validity and reliability of research instruments, data analysis techniques and research ethics are explained.

3.2 Research Design

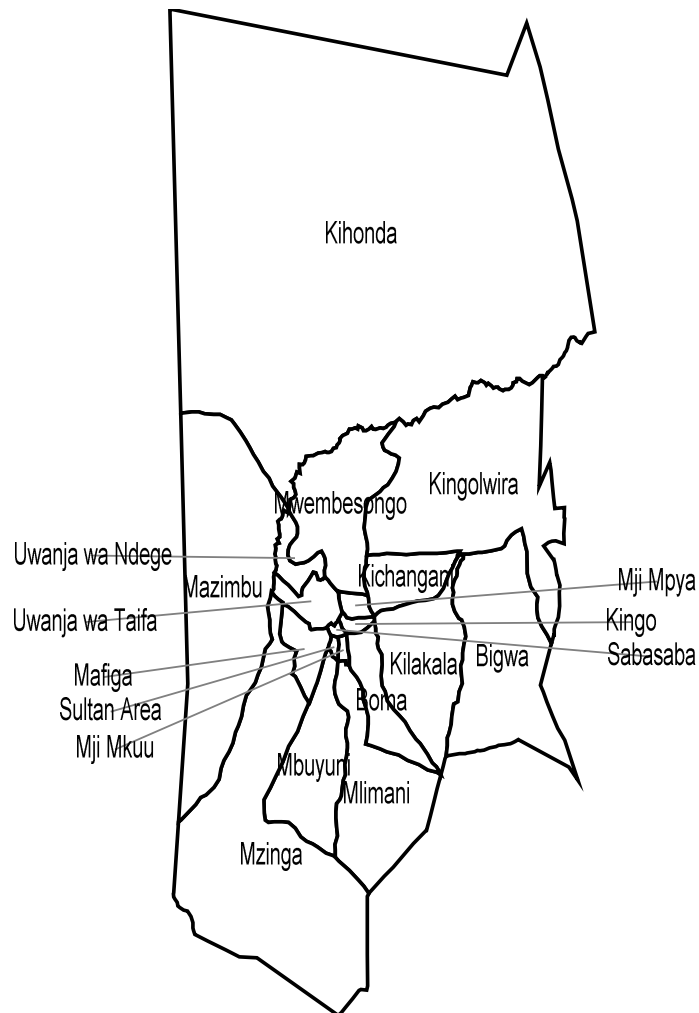
Kumar (2002) elucidates that this section contains the plan, structure and strategy of investigation that was employed so as to obtain answers to research questions of the study. Kothari (2004) defines research design as the settings for the collection and analysis of data in such a way it aims at associating the significance of the research purpose with the economy at hand. This study has employed a case study design due to the following reasons: first, the quest of the researcher to have in depth assessment of the challenges facing adoption of electronic fiscal devices (EFDs) in revenue collection as suggested by Yin (1994). The researcher also wished to triangulate the study by fully using the potential of multiple methods (Shuttleworth, 2008)

3.3 Area of the study

Morogoro Municipality is the Regional Headquarters of Morogoro located about 195 Kilometer to the west of Dar Es Salaam Region and is situated on the lower slopes of the Uluguru Mountains whose peak is about 1,600 feet above the sea level. It lies at the crossings of longitudes 37:0 east of Greenwich Meridian and latitudes 4.49 south of the equator. Morogoro Municipality comprises of 29 wards namely: 1. Kingo, 3. Kilakala, 3. Kingolwira, 4. Mazimbu 5. Bigwa, 6.Kichangani, 7.Mwembesongo, 8.Mjimpya, 9.Mjimkuu, 10.Mzinga, 11.Mbuyuni, 12.Sabasaba, 13.UwanjawaTaifa, 14. Kiwanja cha Ndege, 15.Kihonda, 16.Mlimani, 17.Sultan Area, 18.Boma, 19.Mafiga, 20.KihondaMaghorofani, 21. Mindu, 22.Tungi, 23.Chamwino, 24.Mafisa, 25.Luhungo,

26.Kauzeni, 27.Magadu, 28.Lukobe, 29.Mkundi.According to the census of 2012, the population of the Morogoro Municipality is 315,866 people. Morogoro Municipality has been chosen for the study for the reasons that it is one of the districts that has many traders.

Figure 3.1: Map of Morogoro Municipality



Source: MMC (2015)

3.4 Study Approach

According to Saunders et al., (2007), there are two basic approaches to research; deductive approach and the inductive approach. The deductive approach is based on the general idea of reaching to the specific situation and it is linked with the positivism paradigm, whereas, inductive approach works over a specific idea to generalize the situation as per the research topic, it is linked with the interpretive paradigm (Silverman, 2005). Saunders et al (2007) has asserted that by using both approaches it is very easy to estimate a logical and correct result but it is necessary for the research to combine a correct piece of these approaches.

Both approaches, however, have limitations that leave them exposed to criticisms. Deductive research is criticized for relying too much on directly observable quantitative indicators and establishing causal relationships, thus failing to capture the studied phenomena in their full complexity and contextual manifestation (Johnson, 1997). On the other hand, Inductive research approaches is criticized for being overly concerned with researcher-subject interactions, hence risking greater researcher bias. It is also criticized for lacking reproducibility, since there is no assurance that a different researcher would end up with the same conclusions (Vijayalakshimi and Sivapragasam, 2008). Owing to the limitations of deductive and inductive approaches, therefore the study employed both deductive and inductive research approaches.

3.5 Targeted Population

The target population is the group of people that a researcher wants to study (Vijayalakshimi and Sivapragasam, 2008). The population of the study was composed of Regional manager, Traders and employees from Domestic Revenue, Customs and Excise, Large Tax payer and Tax investigation departments.

3.6 Respondents' Sampling Techniques

Sampling technique is the method used to draw sample size of the targeted population (Babbie, 1989). The research employed convenience and purposive sampling techniques to select respondents for the study.

3.6.1 Purposive Sampling Technique

Purposive sampling technique is the method used to select respondents for the study without providing every item of the population the equal chance of selection (Vijayalakshimi and Sivapragasam, 2008). The research employed the purposive sampling technique to select TRA's Regional manager and 4 heads of departments for the study. The regional manager and heads of departments were selected purposefully into the study for the reason that they are very much acquainted with Tax collection system, they are the decision making authority which affect the implementation of EFDs.

3.6.2 Convenience Sampling Technique

Convenience sampling technique is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher (Babbie, 1989). The study employed the convenience sampling technique to select 100 traders who were accessible and ready to participate in the study.

3.7 Sample Size

Statisticians argue that a sample size of 30 or more will usually result in a sampling distribution for the mean that is very close to a normal distribution, Stately, 2003: (cited by Saunders et al, 2007) advice a minimum number of 30 sample size for statistical analyses.

Table 3.1: Sample Size

Respondents	Total	Percent
Medium enterprise traders	100	95
Regional manager	01	01
Head of Domestic revenue department	01	01
Head of Customs and excise department	01	01
Head of Large Tax payer department	01	01
Head of Tax investment department	01	01
Total	105	100

Source: TRA (2016)

3.8 Data Collection Methods

This section describes the methods for data collection. In the course of data collection, the study employed primary source data. Data from primary source were collected by using questionnaire and interview.

3.8.1 Questionnaire method

Questionnaire method was used to collect primary data from Traders about the challenges facing the adoption of electronic fiscal devices in revenue collection in Morogoro Municipality. In this study, both closed and open ended questionnaires were employed to collect data from 100 respondents.

3.8.2 Interview method

Interview method was used to collect primary data from TRA's regional manager and selected heads of departments. From their responses the review managed to acquire some of the preliminary information on the challenges facing the adoption of electronic fiscal devices (EFD) in revenue collection in Morogoro Municipality. The interview guide was prepared to direct the two ways systematic conversation between the researcher and

respondents. The interview was initiated by the researcher to obtain relevant information for the study. It was chosen because it is thought to be a suitable method for getting in-depth information concerning the study.

3.9 Validity and Reliability

Validity and reliability of the gathered information ought to be checked all together that the study will delineate the truth and wanted result (Saunders *et al.*, 2007). The validity and reliability were profoundly considered in this study.

3.9.1 Validity of the study

The term validity refers to the conceptual and scientific soundness of the research study or investigation and primary purpose of all forms of research is to produce valid conclusions (Festinger, 2005). Validity also refers to trustworthiness, credibility or how truthful the research results are (Johnson, 1997 and Yin, 2003). Several approaches were used to ensure the validity of the study:

The appropriate sampling techniques (convenience and purposive sampling techniques) and methods of data collection (questionnaire and interview methods) were used to enhance trustworthiness of the findings (Calder, 1996). The study employed the relevant literature to inform the research objectives, questions and conceptual framework so as to enable the collection of relevant data for the study (Silverman, 2005). Moreover, appropriate data analysis techniques (thematic and descriptive statistics analysis technique) were employed to ensure trustworthiness of the study.

Lastly, questionnaire and interview instruments were used for this study to test for legitimacy and configure if they required changes or not. The researcher conducted a pilot investigation of 10 respondents to set up the validity of the study.

3.9.2 Reliability of the study

Kothari (2004) defines Reliability as the consistence of the measurement technique. Also, Bhattacharjee (2012) defined reliability as the degree to which there is consistency in results when different observers or the same observer on different occasions uses the same measuring instrument.

The researcher used test-retested method to measure the reliability of the questionnaires and interview instruments. The same questionnaires and interview questions were administered twice to the same 5 respondents in two different occasions within a week. Then the responses of the same questionnaire and interview instruments measured in two different occasions were correlated to determine to which extent the responses were consistent.

3.10 Data analysis

Data analysis refers to the calculation of various trials along with searching for relationship patterns that exist among data groups (Kothari, 2009). In this study both qualitative and quantitative data analysis techniques was applied to analyse data for each research objective. Thematic analysis technique was used to analyse qualitative data, whereby the qualitative data were deciphered, coded and analysed to recognize the basic subjects in connection to challenges facing adoption of EFDs in revenue collection in Morogoro Municipality, the basic subjects was merged into large themes for the conclusion; the qualitative data were presented in form of direct quotations. Likewise, descriptive statistical technique was utilized to break down quantitative information, whereby the information were coded and analysed through Statistical Package for Social Sciences (SPSS version 16.0) Computer programmes, and the findings presented in form of frequency and percentage.

3.11 Ethical Consideration

Ethical standards were observed in the planning and conducting of the study. The researcher secured the research clearance from Mzumbe University. The researcher requested for research permit from the Department of the Human resource and Administration at TRA Morogoro and the Department of Finance and Trade at the Morogoro Municipal Council. The study was conducted with the consent of the respondents after being informed about the purpose of the study, and it was their choice to participate. The researcher observed the right to privacy of the respondents and confidentiality of their information.

CHAPTER FOUR

PRESENTATION OF THE FINDINGS

4.1 Introduction

This chapter presents the findings of the study. The proposed study assessed the challenges facing the adoption of electronic fiscal devices (EFD) in revenue collection in Morogoro Municipality.

The study findings are based on the three research objectives:

- i. To examine the availability of EFDs to Tax payers in Morogoro Municipality
- ii. To determine the capacity of traders on the use of EFDs
- iii. To examine the attitude of traders towards use of EFDs

The demographic findings of the respondents are given first, followed by the presentation and discussion of findings on each of the three research objectives.

5.2 Demographic Characteristics of Respondents

The demographic characteristics of respondents examined are gender, age, level of education. These three characteristics were examined to all 105 respondents.

5.2.1 Characteristics of Respondents by Sex

The study findings in Table 4.1 revealed that, 57(54%) of respondents were females, while 48(46%) of respondents were males. The findings imply that, majority of the respondents involved in the study were female.

Table 4.1: characteristics of Respondents by Sex

Sex	Frequency	Percent
Female	57	54
Male	48	46
Total	105	100

Source: Field Data (2017)

4.2.2. Characteristics of Respondents by Age

Table 4.2 shows that, respondents aged 18-29 years were 31 (29%), 30-49 years were 47 (45%), 50- 59 years were 19 (18%), 60 years and above were 8 (08%). The findings imply that majority of respondents were aged between 30- 49 years.

Table 4.2: Characteristics of Respondents by Age

Age (years)	Frequency	Percent
18-29	31	29
30- 49	47	45
50- 59	19	18
60 years and above	08	08
Total	105	100

Source: Field Data (2017)

4.2.3 Characteristics of respondents by education level

Table 4.3 shows that, respondents with primary education were 36(34%), secondary education were 21(20%), certificate were 13(12%),diploma holder were 10(10%), bachelor's degree were 18 (17%) and master's degree were 07(07%).

Table 4.3: Characteristics of respondents by Level of Education

Level of Education	Frequency	Percent
Primary Education	36	34
Secondary Education	21	20
Certificate	13	12
Diploma	10	10
Bachelor' degree	18	17
Master's degree	07	7
Total	105	100

Source: Field Data (2017)

4.3. Availability of EFDs to Tax payers in Morogoro Municipality

The first objective of the study aimed to examine the availability of EFDs to Tax payers in Morogoro Municipality. To address this research objective, the researcher conducted the interview with the TRA Regional manager and HoDs and administered the questionnaires to the selected willing traders. During the interview one of the respondents had the following to say:

EFDs are not available to all traders in Morogoro Municipality, because there are some areas which have network problems, some areas do not have EFDs suppliers, in other areas traders are not ready to use the EFDs, and in some areas traders do not have knowledge on how to use the machines (HoD).

Table 4.4: Availability of EFDs to Tax payers in Morogoro Municipality

S/N	Statements	Strongly agree	Agree	Disagree	Strongly disagree
1.	EFDs are adopted in businesses by all traders required by the law.	10 (10%)	17 (17%)	40 (40%)	33 (33%)
2.	I was provided with EFD free of charge by TRA	0 (0%)	0(0%)	39(39%)	61 (61%)
3.	Supplier provided me with EFD within a week when requested	19 (19%)	20 (20%)	38 (38%)	23(23%)
4.	Supplier brought EFD machine at my business place	10 (10%)	18 (18%)	33(33%)	39 (39%)
5.	TRA has been making follow up to ensure EFD is adopted in my business	5 (5%)	9 (9%)	48 (48%)	52 (52%)

Source: Field Data (2017)

The findings in Table 4.4 revealed 10 (10%) respondents who strongly agreed that EFDs are adopted in business by all traders required by the law, 17 (17%) agreed, 40 (40%) disagreed and 33 (33%) strongly disagreed. Also, 0 (0%) of respondents strongly agreed that they were provided with EFD by TRA in free of charge, 0 (0%) agreed, 39(39%) disagreed and 61(61%) strongly disagreed. In addition, 19(19%) of respondents strongly

agreed that Supplier provided them with EFDs within a week when requested by traders, 20(20%) agreed, 38(38%) disagreed and 23(23%) strongly agreed. Moreover, 10(10%) of respondents strongly agreed that supplier brought EFD machine at their business place, 18(18%) agreed, 33(33%) disagreed and 39(39%) strongly disagreed. Lastly, 5 (5%) of respondents strongly agreed that TRA has been making follow up to ensure EFDs adopted in their business,9 (9%) agreed 48 (48%) disagreed and 52 (52%) strongly agreed.

4.4. Capacity of Traders on the Use of EFDs

The second objective of the study aimed to determine the capacity of traders on the use of EFDs. To address this objective, the researcher conducted interviews and administered the questionnaires to get relevant information. During the interview one of the respondents had the following to say:

The machines are not provided by TRA, there are agents who have entered into a contract with TRA to produce and supply the machines to trader, for instance, M/S Power Computers, M/SWEBTEC are our agents who supply the EFD machines to traders in Morogoro region. It is the supplier’s responsibility to give the traders instructions or training on how to use the machines. What I know, before the traders are supplied with the machines, they are trained by the supplier on how to use the machines. However, TRA has been providing the training on the use of EFDs through TV and Radio programmes, Seminars, workshops and Bonanza (RM).

Table 4.5: Capacity of Traders on the Use of EFDs

S/N	Statements	Strongly Agree	Agree	Disagree	Strongly disagree
1.	I have been trained on how to use the EFD	18 (18%)	14(14%)	30 (30%)	38 (38%)
2.	I get technical support in time from supplier whenever my EFD face technical problems	18 (18%)	16 (16%)	29 (29%)	37 (37%)
3.	There is reliable power to support the use of EFDs	16 (16%))	14 (14%)	50 (50%)	20 (20%)
4.	There is a reliable internet network to support the use of EFD	18 (18%)	22 (22%)	35 (35%)	25 (25%)

Source: Field Data (2017)

The findings in Table 4.5 revealed that, 18(18%) of the respondents strongly agreed that they have been trained on how to use the EFDs, 14(14%) agreed, 30 (30%) disagreed, 38(38%)strongly disagreed. Also, 18 (18%) of respondents strongly agreed that they get technical support in time from supplier, 16 (16%) agrees, 29 (29%) disagreed and 37 (37%) strongly disagreed. Moreover, 16 (16%) strongly agreed that there is reliable power to support the use of EFDs in Morogoro Municipality, 14 (14%) agreed, 50 (50%) disagreed and 20 (20%) strongly disagreed. Lastly, 18 (18%) of respondents strongly agreed that there is a reliable internet network to support the use of EFD in Morogoro Municipality, 22 (22%) agreed, 35 (35%) disagreed, 25 (25%) strongly disagreed.

In addition findings in Table 4.6 revealed that 45 (45%) can properly use the EFDs, while 55 (55%) of respondents cannot properly use the EFDs.

Table 4.6: Traders' Knowledge on how to Use EFDs

Statements	Yes	%	No	%
I can properly use the EFDs	45	45	55	55

Source: Field Data (2017)

Lastly, findings in Table 4.7 revealed that, 25(25%) of respondents got the knowledge of how to use EFDs from media (Radio, TVs and internet), 40(40%) got from supplier and 35(35%) got from friend.

Table 4.7: Traders' Source of Knowledge on how to use EFDs

S/N	Source of EFD knowledge	Frequency	Percent
1.	Media (Radio, TV and Internet)	25	25
2.	Supplier	40	40
3.	Friend	35	35

Source: Field Data (2017)

4.5. Attitude of Traders towards Use of EFDS

The third objective of the study intended to examine the attitude of traders towards the use of EFDs in Morogoro Municipality. To address this objective, the researcher

employed interview and questionnaire to collect relevant information from the respondents. During the interview, one of the respondents had the following to say:

I can say that to the large extent trader still has a negative attitude toward the EFDs, because majority of them are reluctant to install the devices... Some of them they believe that after install EFD their income will fall, and few of them worrying that they cannot be able to operate the devices (HoD4).

Another respondent had the following to say:

Traders have been complaining that the EFDs are very expensive for them to afford, the machines are sold at 600,000 - 690, 000 TZS for ETR and 1,000,000 - 1,200,000 TZS FOR EFP and ESD. I think the traders might have the negative attitude towards the machines due to price (HoD3).

Table 4.8: Attitude of Traders towards Use of EFDS

S/N	Statement	Strongly Agree	Agree	Disagree	Strongly disagree
1.	My EFD machine has been helping me to keep records of sale transaction.	30 (30%)	40(40%)	20 (20%)	10 (10%)
2.	EFDs have been helping TRA to easy Tax collections.	26(26%)	31 (31%)	18 (18%)	25 (25%)
3.	EFDs help to reduce corruption in revenue collection.	43(43%)	37(37%)	8 (8%)	14(14%)
4.	EFD is a less expensive device.	8(8%)	5 (5%)	49 (49%)	38 (38%)
5.	EFD is a simple device to use.	17 (17%)	20 (20%)	34 (34%)	29 (29%)
6.	EFD is a friendly system to my business.	20 (20%)	15 (15%)	30 (30%)	35 (35%)

Source: Field Data (2017)

The findings in Table 4.8 revealed that, 30 (30%) of respondents strongly agreed that EFD machines have been helping traders to keep records of sale transaction, 40(40%) agreed,20 (20%) disagreed and 10 (10%) strongly disagreed. Also, 26(26%) of respondents strongly agreed that EFDs have been helping TRA with easy Tax collections, 31 (31%) agreed,18 (18%) disagreed,25 (25%) strongly disagreed. In addition, 43(43%) of respondents strongly agreed that EFDs helping to reduce corruption in revenue collection, 37 (37%) agreed,8 (8%) disagreed and 14(14%) strongly disagreed. Moreover, 8(8%) of respondents strongly agreed that EFD is a less expensive

device, 5 (5%) agreed, 49(49%) disagreed and 38 (38%) strongly disagreed. Furthermore,17 (17%) of respondents strongly agreed that EFD is a simple device to use, 20 (20%)agreed,34 (34%) disagreed and 29 (29%) strongly disagreed. Lastly,20 (20%) of respondents strongly agreed that EFD is a friendly system to their business, 15 (15%) agreed,30 (30%) disagreed, 35 (35%) strongly disagreed.

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.1 Introduction

This chapter discusses the findings of the study. The proposed study assessed the challenges facing the adoption of electronic fiscal devices (EFD) in revenue collection in Morogoro Municipality. The study findings are discussed based on the three research objectives, as follows: To examine the availability of EFDs to Tax payers in Morogoro Municipality, to determine the capacity of traders on the use of EFDs and to examine the attitude of traders towards use of EFDs.

5.2. Availability of EFDs to Tax payers in Morogoro Municipality

The findings of the study suggest that EFDs are not available to all Tax payers in Morogoro Municipality, because there are some areas that do not have EFD suppliers. In some areas, traders are not ready to use the EFDs claiming that they cannot afford them. The findings also show that, Suppliers delay to supply the EFDs, they supply after more than a week when requested by traders, suppliers brought EFD machines at traders' business place, TRA has been making follow up to ensure the adoption of the EFDs. The findings are in line with the study by Kira (2016) which revealed that, there were few agents to supply the electronic fiscal devices in Dodoma compared to the high number of Tax payer's available in that region. Presence of the few agents limited the availability of the devices and users are denied services such as education and training programmes on how to use the machines; how to deal with network problem; how to troubleshoot the machine; all these needs some skills to overcome and it is a challenge to unskilled Tax payer to resolve the problem.

5.3. Capacity of Traders on the Use of EFDs

The findings suggest that traders have been trained by the suppliers on how to use EFDs before installing the devices for their businesses. TRA has been providing the training

through TV and Radio programmes, Seminars, workshops and Bonanza. However, majority of traders involved in the trainings have not been satisfactorily trained on how to use the EFDs; traders are not provided with technical support in time from supplier when they get problem with the devices. Moreover, majority of respondents involved in the study cannot use the EFDs properly; there is no reliable power and internet network in Morogoro Municipality. The findings imply that traders in Morogoro Municipality do not have enough capacity to use the EFD machines, it becomes difficult for them to record their sales; thus they get back to paper work and when the devices get ready to be used it takes too much of traders' time entering the required data of their transactions made in the previous trading days. On the other hand customers are denied their right to be provided with the EFD receipts which is now the main goal of the government.

The findings are consistent with the study by Akello (2014) who revealed that, traders in Uganda have been facing the problem of power outage and poor network, thus become difficult for them to use EFDs effectively and the study by Kira (2016) which revealed that the traders in Dodoma were facing networking problem, since these devices uses network to transfer information from Tax payers hence fail to produce Z report and print the receipt to customers at a right time. This situation discourages the Tax payers and customers to use EFDs, claiming that they might have led them to enter wrong data or information in the EFD's system, as a result getting incorrect data on the revenue collected at the Tax authority. Also for not using the machines revenues are not reflected at the TRA's system, this denies the revenue to the government as the result poor service delivery to the citizens. The findings are consistent with the study by Muita (2010) which revealed that there are Tax payers in Kenya who do not have enough knowledge on effective use of EFDs.

5.4. Attitude of Traders towards Use of EFDS

The findings of the study suggested that, majority of traders involved in the study were reluctant to install the devices; they believed that EFDs are very expensive devices for them to afford (the devices are sold at 600,000 - 690, 000 TZS for ETR and 1,000,000 - 1,200,000 TZS for each EFP and ESD).Traders claimed that EFD system is not user

friendly to their business, their business income would fall after installing the EFDs. However, the traders admitted that EFD machines have been helping them to keep properly their sale records, this reduced corruption in revenue collection. The findings imply that the majority of traders involved in the study had negative attitude toward the use of EFD machines, most of them seemed not comfortable with the price of the devices, have no enough knowledge on the use of EFDs, they are hesitant of the charge of the amount of Tax they should pay to TRA after installation of the EFDs; now they pay more than previous time. The TRA officials were meeting with the traders and make consensus on Tax estimations to be paid. The findings are consistent with the study by Kira (2016) which revealed that the traders in Dodoma, Tanzania have negative attitude toward EFDs due to networking problem, Tax payer not having enough education on how to use, the price is not acceptable to them, the machines have high cost of buying in connection to their business.

Also, the study by Magutu *et al.*(2010) in Kisii shows that the traders in Kenya had negative attitude toward EFDs due to their high price. ETR machines were expensive thus limited majority of Tax payers to purchase the machines. The findings are contrary with the study by Nyasha et al. (2012) which revealed that traders in Zimbabwe had positive attitude with the use of EFDs, since the devices positively impacted on the motor industry in their country through improvements in Tax bill assessment which has become fair; saves time in Tax collection, and reduced corruption; there is no direct contact between Tax collectors and traders.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1. Summary of the Study

The purpose of this study was to assess the challenges facing the adoption of Electronic Fiscal Devices (EFD) in revenue collection in Morogoro Municipality. The study specifically was set to examine the availability of EFDs to Tax payers in Morogoro Municipality, to determine the capacity of traders on the use of EFDs and to examine the attitude of traders towards use of EFDs. The study employed quantitative, qualitative and mixed research methods in collecting and analyzing data. The findings revealed that, EFDs are not available to all Tax payers in Morogoro Municipality; traders have no adequate capacity to use the EFDs. TRA has been providing the training through TV and Radio programmes, Seminars, workshops and Bonanza. The study also observed that, traders also have negative attitude toward the use of EFD machine, as most of traders seemed not comfortable with the EFD prices.

6.2. Conclusions

Based on the findings, the study is concluded as follows:

6.2.1. Availability of EFDs to Tax payers in Morogoro Municipality

EFDs are not available to all Tax payers in Morogoro Municipality, since there are some areas that do not have EFD suppliers. The traders do not get technical support in time from supplier when they get problem with the devices and there is no reliable power and internet network in Morogoro Municipality. The study also noted suppliers delay to deliver the EFDs to traders, as they supplied more than a week from the requested time. Moreover, no much improvement has been made to improve the availability of EFDs although TRA has been making follow up to ensure that the EFDs are adopted.

6.2.2. Capacity of Traders on the Use of EFDs

Before the EFDs are installed in their shops, traders have been trained by the suppliers on how to use them. The TRA has been providing trainings through TV and Radio programmes, Seminars, workshops and Bonanzas. However, traders in Morogoro Municipality have not been sufficiently acquainted on how to use the EFDs, and therefore that they cannot use the EFDs properly. Due to their incapacity, it was difficult for traders to record their sales when there was no power, poor internet and technical problems with the devices.

6.2.3. Attitude of Traders towards Use of EFDs

Traders in Morogoro Municipality had negative attitude toward the use of EFD machines, traders are not ready to use the EFDs, they are reluctant to install the devices, they claim that EFDs are very expensive (the devices are sold at 600,000 - 690, 000 TZS for ETR and 1,000,000 - 1,200,000 TZS for EFP and ESD for each). Traders believe EFDs as not friendly to their business as their business income would fall after installing them. However, the traders admitted that, EFD machines have been helping them to keep properly their sale records hence reduced corruption in revenue collection.

6.2.4. Theory Implication

The study findings revealed that Traders in Morogoro municipality had negative attitude toward the use of EFD machines, as a result they refused to install the devices at their business. They claim that; EFDs are not friendly system to their business, EFDs are difficulty devices to use and their business income would fall after installing the EFDs. Under the *Planned Behaviour theory* (Ajzen and Fishbein, 1980) declared the behaviour of individuals within the society to be under the influence of certain factors originating from certain reasons these behaviors emerges in a planned way. The ability to perform a particular behaviour depends on the fact that individuals have a purpose towards that behavior which depends on three factors, that is attitude towards the behavior, subjective norms and perceived behavioral control.

Therefore, Planned Behaviour theory is of relevance to this study, as helped to know why traders have been reluctant to use or adopt EFD machines.

People will always find a way to avoid paying compulsory charges, this was visualized under the *Deterrence Theory* when people critically examine the possible loopholes and risks, that will enhance them to violate the law when they find out the projected fine and the probabilities of being caught are low in relation to the projected profit, Pilkington (1998). This was evidenced by the study results as though the traders have been trained by suppliers on how to use the devices, they still claim that they were not sufficiently trained. And for traders who are not reached by the suppliers it is a bonus to them. Also the theory shows that fear of being caught is a major motivating factor for Tax payers to comply with the law. The model by Allingham and Sandmo, (1972) suggested the inherent result that Tax payer reported more income in response to either an increase in the probability of being detected, or an increase in the penalty imposed on those who are caught this is practiced more by the Tax payers who are located at the centre of the municipal as they are easily reached by the suppliers and the monitoring tax officials.

The findings also show that for those traders who have the machines, they are reluctant to use them because they do not get technical support from suppliers when their machines experience technical faults and there is no reliable power and internet network in their area. The findings are in line with the *unified theory of acceptance and use of technology* (Venkatesh et al, 2003) which emphasise that individual will adopt effectively new technology if technical infrastructure exists to support their use of the technology (Facilitating condition). Performance expectancy is the extent to which an individual believes that adopting technology will bring positive results to his performance hence success to his or her job in relation to the time spent when undertaking a task, quality of the output produced, quantity of the output produced and effortlessness at which the devices can be used.

The findings shows that Traders declared that EFDs helps them keep proper records of sale transactions although they still are reluctant to adopt the EFD as they believe that, by adopting the devices their income will go low as most of their income will go to the Tax Authority. This was demonstrated by Venkatesh et al., (2003) the Expectation that one will be perceived competent and that the use of technology will increase chances of getting a pay raise can also contribute to acceptability of a system by user. Venkatesh et al., (2003) under the Effort expectancy reveal that where the technology is at any time perceived difficulty or the user expects to be spending much time performing routine operation, the acceptability would be minimal this was evidenced by the findings that traders were reluctant to use the EFDs because they did not get technical support from suppliers when their machines experienced technical faults and there was no reliable power and internet network at their areas.

Diffusion of Innovation Theory (DoI), TRA believes by adopting to EFDs revenue collections will be increased but from the findings gathered Traders in Morogoro Municipality had negative attitude toward the use of EFD machines as a result traders are not ready to use the EFDs, they are reluctant to install the devices, they claim that EFDs are very expensive. Traders believe EFDs as not friendly to their business as their business income would fall after installing them. TRA could not give up and was making all the relevant initiatives to convince traders to use to devices by means of TV and Radio programmes, Seminars, workshops and Bonanza. However, majority of traders involved in the trainings have not been satisfactorily trained on how to use the EFDs.

6.3. Recommendations

TRA should make sure there is enough number of agents supplying EFD machines in order to reduce problem created with low number of agents in Morogoro Municipality.

The study recommends, in order to increase efficiency in revenue collection, TRA should introduce EFDs that have minimal network breakdowns or no breakdown at all. The government through TRA should reduce or subsidize the prices of EFDs in order to

encourage more Tax payers to afford the machines or if possible provided to Tax payers free of charge as a motivation.

TRA is recommended to embark on education and training programmes in order to address the challenges which are still affecting the implementation of the EFDs system. More Tax payers in Morogoro Municipality need to be sensitized to reduce the resistance and also to increase the coverage on the use of the system.

TRA should provide some incentives to motivate Tax payers' participation, example, provision of rewards to promote change acceptance to those comply with EFDs voluntarily, reimbursing Tax payers cost of purchasing the EFDs machines.

TRA is recommended to involve Tax payers (traders) in the whole process of influencing the implementation process. It is essential to explain and discuss changes by involving Tax payers before they are implemented. Tax payers should be involved from the initial stages in order to get their views before implementation stage, where possible, be involved in the planning stage.

6.4. Limitation of the Study and Suggestion for Further Research

This study was conducted in one district (Morogoro Municipality).The study used only interview and questionnaire methods of data collection and one study case. Therefore, with these methods of data collection the findings of this study cannot be generalized for all districts in Tanzania. Therefore it may be important to conduct the similar study, which will include more methods of data collection and cover more districts so as to have a broader understanding of the challenges facing the adoption of electronic fiscal devices (EFDs) in revenue collection in Tanzania.

REFERENCES

- Adam, J. and Kamuzora, F. (2008) Research methods for business and social studies, Mzumbe book project Tanzania
- Ajzen, I. and Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Englewood Cliff: Prentice-Hall.
- Akello, T. S. (2014). The Effect of Electric Power Fluctuations on the Profitability and Competitiveness of SMEs: A Study of SMEs within the Accra Business District of Ghana. *Journal of quality and reliability Management*, 16 (2): 80- 166
- Allingham, M. G. and Sandmo. (1972). *Income Tax Evasion: A Theoretical Analysis*. *Journal of Public Economics*, 56(19): 40-70.
- Amitabh, T., Fishbein M., Ajzen, I., Gagnon, M.P., Berwick, D.M. (2009). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, Vol. 13, No.2, pp 319-339.
- Amitabh O, Sahu G.P., Gupta M.P. (2009). Antecedents of paperless income Tax filing by young professionals in India: an exploratory study *Journal: Transforming Government: People, Process and Policy*.
- Anna, T. (2006). Attitudes towards the use of electronic invoicing by financial managers in Small to Medium sized Companies in Finland. *International Journal of Management Sciences and Business Research*, 2(4): 26-30
- Atambo A, (2012). Effectiveness of Electronic Tax Registers (ETRs) in processing of value added Tax returns.
- Atambo, D.V., Richard M., Bird, N., Joseph L., Rotman I, (2010). Effectiveness of Electronic Tax Registers (ETRs) in processing of value added tax returns. *An International Multi-Disciplinaries Journal*

- Atkinson, R. (2008). Creating a digital federal government and Information Impact. *Journal of Science and Technology*, 1(2): 212- 250
- Babbie (1989). *Methodology of research in social sciences*. Delhi: Himalaya
- Bakar, S.S. (2014). *Impact of Electronic Fiscal Devices of Value Added Tax Collection Process: The Case of Tanzania Revenue Authority in Tanga Municipality*. Retrieved on 16.12.2016 from http://scholar.mzumbe.ac.tz/bitstream/handle/11192/1160/MSc_MBA-CM_Salim%20Bakari_2014.pdf?sequence=1
- Banks, D.J. & O. S. Rodgers (2002). *An Operational Definition Of E-Governance*, Washington Dc: National Defense University Press.
- Berwick, D. M. (2003). Disseminating Innovations in Health Care. *Journal of the American Medical Association*; 289 (15):1969-1975
- Bhattacharjee, A. (2012). *Social Science Research: Principles, Methods, and Practices*. Retrieved on 11/12/2016 from http://scholarcommons.usf.edu/oa_textbooks/3
- Bhattaria, M. K., (2004). *Prospects and Challenges Of Implementation Of E-Governance in Nepal (Unpublished Thesis)*. Kathmandu: Central Department Of Public Administration, Tribhuvan University.
- Bolgherini.S., (2006). The technology trap: a critical analysis of e-governance policies". *review of policy research*, 24(3): 259-75.
- Braithwaite, J., Braithwaite, V. (2001), *An evolving compliance model for Tax enforcement*. New York: Oxford University Press.
- Brown, R.E. and Mazur, M.J. (2003), *IRS's Comprehensive Approach to Compliance Measurement*, IRS White Paper, Washington D.C.

- Calder, S. L. (1996). Presumptive taxation in Sub-Saharan Africa: experiences and prospects: IMF Journal, 35(9): 118- 130
- Chad, S. K. & Wolf, B. (1973). *Elasticity and Bouyance of the Tax System of Peru*. Ireland: Blackwell Publishing.
- Chege, J. M. (2010). The impact of using electronic tax register on Value added tax compliance in Kenya: A case Study of classified Hotels in Nairobi. Retrieved on 16.10.2016 from <http://erepository.uonbi.ac.ke/bitstream/handle/11295/13898/Chege-The%20Impact%20Of%20Using%20Electronic%20Tax%20Register%20>
- Chijoriga, M.M (2012). *New Areas for Enhancement of Revenue collection and Broadening Tax Base of the Country*. Unpublished Report.
- Cooper, R. and Zumd. Y. (1990). Empirical Relationships between Cognitive Ability and Computer Familiarity. Journal of Research on Computing in Education, Volume 21: 457- 463.
- Festinger, D. (2005). *Essentials of Research Design and Methodology*. New Jersey: Wiley & Sons, Inc
- Fichman, R.G. and Kemerer, C.F., (1999) "The Illusory Diffusion of Innovation: An Examination of Assimilation Gaps. Information Systems Research, 10(3), 255-275.
- Fjeldstad, O. and Heggestad, T., (2011). *To pay or not to pay? Citizens' views on taxation in local authorities in Tanzania*, CMI Working paper, Chr. Michelsen Institute. 46pp.
- Garde, M (2004). *A model of Tax Administration Reform*. Manila bulletin.

- Gashi, A.N., Geoff Pugh,G. and Adnett, N. (2008). Technological change and employer - provided training: Evidence from German establishments. London: Pluto Publishing Press.
- Gupta, B. (2006). Adoption of ICT in a government organization in a developing country. *Journal on advances in Global High-Technology Management*, Volume 21: 217-234.
- Hancock, R. and Groff, B. (2000). Tax collection in Australia's cash economy: assessing revenue implications", Flinders University, Adelaide, Unpublished Discussion Paper.
- Hashim, J. (2007). *Information communication technology (ICT) adoption among SME owners in Malaysia*. *International Journal of Business and Information*, 2 (2): 10-18.
- Heeks, R.B (2002). *E-Governance in Africa: Opportunities and Challenges*: UK: University of Manchester Press.
- http://repository.out.ac.tz/1462/1/Saleh_Mohamed.pdf
- http://scholar.mzumbe.ac.tz/bitstream/handle/11192/1140/MSc_MBACM_%20Salim%20Bakar%20S_%202014.pdf?sequence=1
- Ikasu, E. J. (2014). Assessment of Challenges Facing the Implementation of Electronic Fiscal Devices (EFDs) in Revenue Collection in Tanzania. *International Journal of Research in Business and Technology*, 5(3). 2291-2118.
- IMF(2005). Technology Leadership and ICT Use: Strategies for Capacity Building for ICT integration. *Journal of Learning for development*, 1(2): 1-12
- Johnson, R.B. (1997). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, 1(2), 112-133.

- Kerever, M. (2008). Fiscal Printers Dominican Experience, CIAT/AEAT/IEF Tax Administration Review No.33 (June 2012), pp. 16 – 33.
- Kira, A.R. (2016). The Perceptions of Taxpayers on the Adoption of Electronic Fiscal Devices (EFDs) in Revenue Collection in Tanzania: The Case of Dodoma. International Journal of Academic Research in Business and Social Sciences, 6(12): 39- 55.
- Kombo, D.K. and Tromp, D.L.A. (2006). *Proposal and Thesis Writing. An Introduction*, Paulines Publications Africa: Nairobi, Kenya.
- Kothari, C. R. (2009). *Research Methodology. Methods and techniques* 2nd Ed. New Delhi: New Age International Publishers.
- Kothari, C.R. (2004). *Research Methodology : Methods and Techniques*, New Delhi, New Age International (P) Ltd.
- Kumar, R. N. (2002). *Electronic Tax register systems: An overview of the fiscal devices*. New Delhi, India: New Age International Publisher.
- Lumumba, O.M, Obongo B.M, Magutu, O.P., & Onsongo, C. (2010). *Effectiveness of ETR in processing of VAT Returns in Kisii Town, Kenya*, African Journal of Business & Management (AJBUMA) Vol. 1 (2010).
- Magutu, P.O., Mbeche, M.I., Nyaoga, B.R., Nyamwange, O., Onger, R.,N., & Ombati, T.O. (2010). Quality Management Practices In Kenyan Educational Institutions: The Case Of The University Of Nairobi. African Journal of Business & Management (AJBUMA), 1, 14,28. Available Online at <http://www.aibuma.org/journal/index.htm>

- Mahdavi, S. (2008). The Level and Composition of Tax Revenue in Developing Countries: Evidence from unbalanced panel data. *International review of Economics and Finance*, 17,607-617.
- Martin, L. O., Obongo, B. M., & Magutu, P. O. (2010). The Effectiveness of Electronic Tax Registers in Processing of Value Added Tax Returns. *African Journal of Business & Management (AJBUMA)*, 1(6). 44-54.
- Martyn S. (2008). Descriptive Research Desig:.. Retrieved April 14, 2017 from world wide web: <https://explorable.com/descriptive-research-design>
- Mboma. (2012). *Challenges to Electronic Fiscal Devices adoption in Tanzania: Enhancing VAT Services in Tanzania*. Dar Es Salaam: Lap Lambert Academic Publishing.
- Mengere.M.M. (2013). *The Effect of Tax Related Education on PAYE Tax Compliance for KRA Audited Firms in Nairobi Central Business District*. Unpublished Master's Dissertation, University of Nairobi, Kenya.
- Meyer, A.W. and Goes, Z.R. (1988). Status Quo Bias in Decision Making, *Journal of Risk and Uncertainty*, 6(1): 5- 9
- Mmanda, P. (2010). *Introduction of Electronic Fiscal Device in Tanzania*. *TRA Journal*, 15(3): 46-50.
- MMC (2015). Administartive Map of Morogoro Municipality. Retrieved on 10.12.2016 from <http://morogoromc.go.tz/Publications/Press-Release>
- Mohamed, S. (2015). Effect of Introduction of Electronic Fiscal Device on Revenue Collection in Tanzania: A Case of Kinondoni Municipal Council. Retrieved on 16/12/2016 from World Wide Web: http://repository.out.ac.tz/1462/1/Saleh_Mohamed.pdf

- Muita, P. (2010). Introduction of Electronic Fiscal Device in Tanzania. *TRA Journal*, 15(3): 46-50.
- Naibei, K. I.& Siringi, E. M.(2011), *Impact of Electronic Tax Registers on VAT Compliance: A Study of Private Business Firms* (Pp. 73-88) Kisumu city, Kenya, Maseno University.
- Ndunda, J. M., Ngahu, S. T. & Wanyoike, D. (2015). *Analysis of factors influencing optimal revenue collection by count governments in Kenya*. *International Journal of Economics, Commerce and Management*, 3(26): 98- 112.
- Nyasha, U., Magutu, O.P, Obongo, B.M, and Onsongo, C.O, (2012). The VAT in Developing and Transitional Countries”. *Journal of Economic Literature*, 47(1); pp.159-170.
- Omweri, L.M. and Bernard. M.O. (2010). Effectiveness of Electronic Tax Registers (ETRs) in the Collection of VAT Returns in Kenya. *African Journal of Business & Management*, 1 (10): 44- 54
- Pandu, S. H. (2012). *Effects of Using Electronic Fiscal Devices on Performance on Value Added Tax Collection: The Case Study of VAT Taxpayers in Dar es Salaam*, Unpublished Masters of Science (Accounting and Finance) dissertation, Mzumbe University..
- Pilkington, C. (1998). Taxation and ethical issues. *Ethical Issues in Accounting*.
- Plumley, A. H. (1996). The determinants of individual income tax compliance: Estimating the impacts of tax policy, enforcement, and IRS responsiveness. Internal Revenue Service.
- Plumley, T. (1996). Presumptive taxation in Sub-Saharan Africa: experiences and prospects: *IMF Journal*, 35(9): 118- 130

- PMORALG (2013). *LGAs Own Source Revenue Collection*. DSM: Government Printer
- PSRP (2009). Report of The Public Sector Reform Commission On Implementation Of E-Governance in Tanzania.
- Rogers, E. M. (1995). *Diffusion of innovations* (4th Ed.). New York: Free Press.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th Edition). United Kingdom: Pearson Education Limited.
- Silverman, D. (2005). *Doing Qualitative Research: A Practical Handbook*. London: Sage Publications Inc.
- Stutely, M. (2003) *Numbers Guide: The Essentials of Business Numeracy*. London: Bloomberg Press.
- Tanzania Revenue Authority (TRA). (2011). *A Guide on the Introduction of Electronic Fiscal Devices (EFDs)*. Booklet 1/2011
- Tanzania Revenue Authority, (2014), VAT Tax Act, Cap 148 Laws of Tanzania.
- Taye, Y. (2011). *The Impact of Electronic Tax Register on Value Added Tax*, the case of Addis Ababa City Ethiopia. Addis Ababa University.
- Tayie, L. (2005). *Research Methodology in the Social Sciences*, Cummor Hill: Oxford, University Press of America
- The Finance Act of 2009
- TRA (2016). *Electronic Fiscal Devices (EFD)*. Retrieved on 23 oct, 2016 from World Wide Web: <http://www.tra.go.tz/index.php/e-fiscal-devices-efd>.
- UN (2012). *E- Government Survey 2012, E-Government for the People*, New York: United Nations Publisher.

- URT (1997), Value added Tax Act, Government Printers, Dar es salaam.
- URT (2003). National ICT Policy, URT, Dar Es Salaam: Government Printer.
- URT (2010), Value added Tax (Electronic Fiscal Devices) Regulation, 2010. Government Printers, Dar es salaam.
- Usher,K. (1986). Electronic Fiscal Devices (EFDs) An Empirical Study of their Impact on Taxpayer Compliance and Administrative Efficiency. International Journal of Research in Business and Technology; Vol. 5, No 3 pp. 1-8
- Value Added Tax (Electronic Fiscal Devices) Regulations of 2010
- Value Added Tax Act of 1997
- Venkatesh, V., Michael, G. M., Gordon, B. D., & Fred, D. D. (2003). User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly, 27 (3), 425-478.
- Vijayalakshmi G., and C. Sivapragasam, (2008), Research Methods: Tips and Techniques, Chennai: MJP Publishers.
- Vijayalakshmi, G., & Sivapragasam, C. (2008). Research Methods: Tips and technologies by Chennai: MJP Publishers.
- Weru, J. M, Kamaara, M. W & Weru, A. N. (2013). *Impact of strategic change: introduction of ETR for enhancement of Tax collection at KRA*, International Journal of Economics and Finance Vol.1, Issue 5, 2013.
- Yin, R. K. (1994). Case study research: Design and methods(2nd ed.). Newbury Park, CA: Sage Publications.

Yin, R. K. (2003). *Case Study Research: Design and Methods*. Sage Publications, International Educational and Professional Publisher, Thousand Oaks, London, New Delhi.

Zahara, S. A. and George,G. (2002) Absorptive Capacity: A Review, Reconceptualization, and Extension. *Journal on computers in Human Behavior*. Volume 9(3): 427-440.

APPENDICES

Appendix i

QUESTIONNAIRE FOR TRADERS (TAX PAYERS)

I am a student at Mzumbe University, doing a research study as a compulsory part of my study programme. The purpose of the research is to assess the challenges facing the adoption of the electronic fiscal devices (EFD) in revenue collection in Morogoro Municipality. I will be very grateful if you spend some few minutes to fill in this questionnaire. I promise the information that you provide will be treated as confidential purpose only and your identity will not be exposed.

Instructions

- Please put \surd where appropriate

A. Demographic Characteristics of Respondent

1. What is your Gender?

- a. Male ()
- b. Female ()

2. What is your age?

- a. 18 – 29 ()
- b. 30 – 49 ()
- c. 50 – 59 ()
- d. 60 and above ()

3. What is your level of education?

- a. Secondary ()
- b. Certificate ()
- c. Diploma ()
- d. Bachelor's degree ()
- e. Master's degree ()
- f. Other (specify).....

B. Availability of EFDs to Tax payers in Morogoro Municipality.

5. Below are the statements indicating your attitude towards availability of EFDs to Tax payers in the Morogoro Municipality (Please tick where appropriate)

S/N	STATEMENTS	Strongly agree	Agree	Disagree	Strongly disagree
5a	EFDs are adopted in businesses by all traders required by the law.				
5b	I was provided with EFD free of charge by TRA				
5c	Supplier provided me with EFD within a week when requested				
5d	Supplier brought EFD machine at my business place				
5e	TRA has been making follow up to ensure EFD is adopted in my business				

6. Do you think it is easy for trader to get EFD from TRA?

- a) YES ()
- b) NO ()

7. If 'NO' why do you think it is not easy for traders to get EFD machine from TRA?.....

8. When your EFD machine has got a technical problem beyond repairing, where do you get the new machine?

- a) TRA ()
- b) Agent ()

9. Do you get new machine free of charge?

- a) YES ()
- b) NO ()

10. If 'NO' how much should you pay?

.....

C. Capacity of traders on the use of EFDs

11. Below are the statements indicating your attitude towards your capacity on the use of EFDs (Please tick where appropriate)

S/N	STATEMENTS	Strongly Agree	Agree	Disagree	Strongly disagree
11a	I have been trained on how to use the EFD				
11b	I get technical support in time from supplier whenever my EFD face technical problems				
11c	There is reliable power to support the use of EFDs				
11d	There is a reliable internet network to support the use of EFD				

12. Do you have knowledge on how to use EFD machines?

- a) YES ()
- b) NO ()

9. If 'YES' where did you get the knowledge? (Tick where appropriate)

(a)	(b)	(c)	(d)	(e)	(f)
Tv	Radio	Newspaper	TRA	Friend	Internet

(g) If others specify.....

D. Attitude of Tax payers towards use of EFDs

13. Below are the statements indicating your attitude towards use of EFDs(Please tick where is appropriate)

S/N	STATEMENTS	Strongly Agree	Agree	Disagree	Strongly disagree
13a	My EFD machine has been helping me to keep records of sale transaction.				
13b	EFDs have been helping TRA to easyTax collections.				
13c	EFDs help to reduce corruption in revenue collection.				
13d	EFD is a less expensive device.				
13e	EFD is a simple device to use.				
13f	EFD is a friendly system to my business.				

14. According to your own opinion, why do some traders resist to use EFD machines?

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*****Thanks for your Cooperation*****

INTERVIEW GUIDE FOR TRA REGIONAL MANAGER AND HEADS OF DEPARTMENTS

1. What is your job title?
2. What is your specialization?
3. What type/category of traders are required to use the EFDs?
4. What methods did your organization use to identify the traders?
5. In your region are the EFDs available to every identified trader? If no, what could be the challenge?
6. Do traders have required knowledge for the use of the machines? How are they enhanced and who pays for the training costs?
7. How have the traders been responding to the adoption of the EFDs?
8. What could be identified challenges regarding the use of the devices on your side and on the side of the traders?