

# The Perceptions of Taxpayers on the Adoption of Electronic Fiscal Devices (EFDs) in Revenue Collection in Tanzania: The Case of Dodoma

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## Abstract

Most of developing countries rely on fiscal instruments in running their government's operations; main source of public revenue in these countries is taxes. This study evaluated the taxpayer's perceptions on the use of Electronic Fiscal Devices (EFDs) by analyzing the benefits of using EFDs in revenue collection; the perceptions of taxpayers towards the use of EFDs and challenges towards the use of the EFDs in revenue collection. The study adopted the survey research design and the sample size of 75 taxpayers was used. The findings show that majority of taxpayers' demonstrated advantages of using EFDs machine in revenue collection. The study findings reveals that EFDs has reduced the time it takes to prepare sales report, secure tax information for auditing purpose and transaction; and ensure tax rate to be paid by the taxpayers. The challenges faced by EFDs users includes high prices of EFD machines, faint fiscal tax invoices, EFD's network problem, lack of taxpayer's education EFDs applications and few suppliers of EFDs machines. The study recommend Tanzania Revenue Authority (TRA) to conduct trainings and workshops with taxpayers on EFDs application; to provide incentives to encourage taxpayers' adoption of EFDs; to ensure sensitization, education and training programs are promoted to taxpayers' awareness in on EFDs system in friendly manner. Finally, the government through fiscal laws should make sure that all qualified taxpayers are enrolled on the use of EFD machine.

**Keywords:** Electronic Fiscal Devices (EFDs); Tanzania; Revenue Collection; Taxpayers, Taxes

## 1.0 An Overview of the study

Efficient and effective revenue collection is an important aspect of economic development of any country (Malima,2013). The adequacy of government revenues allows the government to support its operations ranging from administrative activities, infrastructure constructions and service provision. Ebeke (2010) commented on the importance of developing countries to adequately manage its sources of revenue to enhance the speed of developments. Komanya (2013) supported that sufficient revenue collection decreases the degree of

dependence of the government to donors for its developments which offers the government's ability to make different developmental decisions.

Numbers of countries have made efforts to deal with weak tax administration as well as reduced tax evasion and avoidance. Countries all over the world have reformed or are attempting to reform their tax systems with the main impetus being the increasing complexity of tax codes, narrow tax bases and concerns with horizontal equity. The Tanzania tax system has undergone number of changes aimed at: *first*, ensuring that as many individuals as possible are brought into the tax network; *secondly*, due to the changing aspects of the economy, the tax systems must be seen to reflect those realities.

Dealing with the policy problem of tax evasion it requires at least some understanding of the factors underlying the individual decision whether to pay or evade taxes. More systematic and coherent information on taxpayer attitudes is required for better analysis and more informed tax policy design in Africa. Understanding on taxpayers' perception on taxation may provide an essential diagnostic of the political realities for tax reform. Attempts to broaden the tax base require better knowledge of how the large majority of citizens perceive the tax system, whether people perceive to comply with taxes or not, what they eventually pay, their views on tax administration and enforcement, what the perceived benefits of paying taxes might be, and whether and how their tax behavior miscorrelated with how they perceive the government.

In improving tax collection and administration in Tanzania, the adoption of new technology was necessary change to be adopted to replace traditional manual tax collection and administration. In adoption of changes in technology several theories demonstrate its challenges. Ajayi (2007) stated that the development and adoption of an analytical technological framework emphasizes the role of knowledge, attitudes and perceptions in the efficient and effective decision-making process. Theories and empirical studies demonstrated that risk and uncertainty play an important role in the adoption of new technologies (Marra *et al.*, 2003, Schoemaker, 1982).

## **1.2 Attitude and Perception of Tanzanian Taxpayers on EFD**

Domestic revenue increment is precedence to the Tanzanian government. The mobilization of strategies revenue in revenue collection is a way for the government to create a fiscal space, provide essential public service and reduce foreign aid by relying on single resource dependence. Cognizant of that importance, the Tanzanian government through TRA has been implementing various tax reforms aimed towards broadening the tax bases, enhancing compliance and improving other aspects of tax revenue administration, and even improving the quality of services it provides to its stakeholders. This study intend to reveal the attitude and perception of current and potential taxpayers which will help to identify perceived weaknesses of the tax system on adoption of new technology in revenue collection, as well as to enable tax authorities to direct attention on efficiently high-risk categories of taxpayers. The study also will provide an opportunity to explore cross-country similarities and differences to assist regional policymakers to identify good practice cases and lessons to be learnt towards best practice in adoption of new technology in revenue collection.

This study focused on the introduction of electronic receipt generating machines popularly known as Electronic Fiscal Devices (EFDs) which replaces the former Electronic Cash Registers (ECRs). The EFDs were brought into use in Tanzania in year 2010 to enable TRA realize its ultimate goal of tax revenue enhancement and collection to capacity levels. This is due to the fact that VAT in Tanzania, despite its success still had many challenges including; management

of repayment claims was a difficult issue, some of VAT registered traders were not issuing tax invoices, slow growth of tax base, tax evasion, tax avoidance etc. It was therefore expected that the effective use of EFDs would revolutionize and modernize VAT and Income Tax administration systems and ultimately attain increased government revenue collections.

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

Tanzania is joining other countries with special laws which make it mandatory for suppliers of goods or services to use approved cash registers with special security features that enable the tax authorities to check tax payable by the merchant (Mmanda, 2010). The ETR are appropriate and commonly used by retail businesses that issue receipts manually while the EFP are used by computerized retail outlets and are mostly suitable for business group such as supermarkets and petrol stations among others. The ESDs are used by computerized businesses that issue receipts or invoices via special accounting software; easily can be used by manufacturers and wholesalers (Mmanda, 2010).

The Electronic Fiscal Devices (EFDs) has been introduced to VAT registered traders under the "The Value Added Tax (Electronic Fiscal Device) Regulation, 2010" - Subsidiary Legislation, Government Notice No. 192 published on May 28, 2010, and enshrined in the Finance Act, 2010 with the main aim of enhancing VAT compliance in Tanzania. TRA's new EFD system became effective on July 1, 2010 (Finance Act, 2010). Introduction of EFDs in July, 2010 marks the First phase during which more than 17,000 traders registered under the Value Added Tax (VAT), were seen using the devices countrywide (Kagoro, 2014).

TRA started to implement the second phase of Electronic Fiscal Device (EFD) in 2013 with the aim of boosting revenue collections and simplify tax administration. TRA introduces the use of EFDs for issuing receipts and invoices for every sale made. The Second Phase was intended to cover non VAT registered traders targeted to cover 200,000 traders countrywide. Implementation of the second phase of EFD include the following groups; Traders who are not VAT registered with a turnover ranging from TZS 14 million and above per year, traders trading in the Region's prime areas, identified on the basis of rent payable and traders dealing with selected business sectors such as Spare Parts, Hardware, Mini Supermarkets, Petrol stations, Mobile phone shops, Sub wholesale shops, Bar and Restaurants, Pharmaceutical Stores; Electronic Shops (Jackson, 2013).

TRA launched the second phase of EFDs on May 15, 2013, in order to better cover tax collection from non-VAT registered traders. It is the first revenue authority to implement such a technologically advanced solution with GPRS based Fiscal machines providing two way communications between very advanced Server Software called EFDMS and Fiscal Cash Registers. The system intends to reorganize tax information from over 200,000 traders (Israel, 2013).

Therefore the study intends to assess the perceptions of taxpayers on the use of EFD machine in revenue collection by assessing the benefits of using EFDs in revenue collection and challenges towards the use of the EFDs in revenue collection.

### **1.2 Statement of the Problem**

There is a global concern today for how to make the economy move and set it on the desired growth path. Not much progress can be achieved unless the economy is at least marginally

relieved of the high burden of taxation. To increase the tax revenue in line with growth in the economy there is need for major tax reforms. These reforms include measures to enhance compliance. Most tax authorities around the world undertake a mix of processing, services, enforcement, litigation, and sometimes-legislative activities many of which are aimed at improving taxpayer compliance. In carrying out those activities, it is important for a tax authority to be able to determine whether these activities are achieving the required outcomes, including determining whether they are having any impact on compliance (EOCD, 1999, 2013).

The introduction of EFDs machines to taxpayers has been seen as an effective way to solve the problem of non-compliance and raise government revenues. Also the machines have in-built Fiscal Memory which cannot be erased by mechanical, chemical or electromagnetic interferences, automatically self-enforcing issuing of daily "Z" report after every 24 hours, transmits tax information to TRA system automatically and has irreversible date mechanism. Moreover the machines issues fiscal receipts/invoice which is uniquely identifiable and can be used as a standalone and configured into a network has 48 hours power backup, can also use external battery in areas without electricity supply (Ikasu, 2014).

The EFDs machines have got a lot of challenges in the implementation stage due to the new technology inseminated, lack of conviction of need for change; dislike of imposed change or no involvement in the change, dislike of surprises/no information for readiness, fear of the unknown, and uncertainty; reluctance to deal with unpopular issues; fear of inadequacy and failures due to need for new skills; disturbed practices, habits, relations and familiarity; and lack of respect and trust in persons promoting the new system (Weru *et al.*, 2013).

During the short period of the operations of the EFDs from October 2010, the concerns have been raised from stakeholders on whether these machines reach the objectives of their establishment. Taxpayers have been complaining due to several challenges which significantly affect the VAT and non VAT registered running business registered traders (Ikasu, 2014). Unfortunately most of taxpayers are facing problems with the process from the point of ordering up to the installation stage the process can even take more than a month to get the device fully installed. Taxpayers with EFDs are also complaining that the machines are not working properly as expected and as advocated by TRA. Taxpayers fail to send the report to TRA within the prescribed period like submission of a summary of sales report printout generated by an electronic fiscal device on daily, monthly, or annually basis (Z report). This is likely to create problem to both TRA and the taxpayers as TRA may regard this as an offence committed by the traders (Ikasu, 2014). None of the previous studies has dealt with the perceptions of tax payers on using EFDs in revenue collection in developing countries such as Tanzania. Based on this evaluation, there is a gap in literature to warrant this research to be conducted in tax reforms related to perceptions of tax payers on using EFDs in revenue collection. Therefore this study intends to determine the perceptions of tax payers on using EFDs in revenue collection.

In summary for this document; the following parts present the literature review; research methodology; research findings and discussion and finally the study conclusion and recommendations.

## **2. Literature Review**

Nyasha *et al.*, (2013) quoted Newcomb (1943) study which stated that the benefits of automation include a reduction of fraud, remote access to information, improved collection of statistics and uniform application of tax legislation. The introduction of tax automation

minimizes direct contacts between tax collection officers and traders or their agents and hence leads to a reduction of corruption. Further benefits achieved through customs automation include improved reporting, control of file transfer, automation reconciliation of tax returns declarations and compliance testing of bank files. Paperless declarations and customs automation save time and make it easier to focus on inspecting high-risk consignments. The possibility of submitting tax returns declarations on-line has in some cases made it possible to reduce the associated fees, in other cases it eliminates the obligatory contracting of customs agents.

Nyasha *et al.*, (2013) study deals with attitudes of employees towards the use of fiscal electronic devices in calculating value added tax (VAT); this was, a case study of motor industry in Zimbabwe, the research sought to find the attitude of motor industry employees in Zimbabwe towards the use of fiscal electronic device. The findings of the study revealed that fiscal electronic devices had positively impacted on the motor industry through improvements in tax collection, saves time in tax collection, reduces direct contact between tax collectors and hence minimizes corruption. Moreover, the study found out that employees with low educational level find it difficult to use fiscal electronic devices because they lack know how on how best to use them. Employees perceived negatively the use of fiscal electronic devices because they are not aware of the method and some are just resistant to change that is given all the resources they will reject to use the advanced method.

Mmanda, (2010) study on “Introduction of Electronic Fiscal Device (EFD) machines” is good in that once information are entered TRA gets information after 24 hours and if one tampers with the information, the machine reports to tax authorities. In addition, the machines keep the information for not less than five years. After all, it is the government that pays for the machines. However, the VAT and TIN running registered businesses have to buy them first but when they install them, the costs are deducted from the tax the businesses are supposed to pay to TRA. It is only when the amount is paid that the businesses start paying Tax.

Cascio (1986) states that electronic device processing methods make use of computers in determining the amount of tax to be remitted to government. Electronic device processing method is less time consuming, less costly, more accurate and faster as compared to the manual data processing method. Cascio (1986) argues that electronic device method is more reliable and fast as compared to the manual data processing method. Liden and Adams (1992) evidenced that older employees usually favor the use of manual methods in determining the value of tax while the younger employees usually favor the use of electronic devices citing the above benefits. They went on to say that younger generations usually have positive attitudes towards the use of electronic devices while older generations have negative attitudes towards the use of electronic devices.

Weru *et al.*, (2013) revealed that when the ETR machines were introduced by Kenya Revenue Authority most of the businessmen and service providers rejected them. They were all up in arms as human beings operate in a state of equilibrium and they do not want to learn new things. In Mombasa town, at the Coast of Kenya, the Asian businesses came to a halt as the owners protested on the streets. To date, there are many people who continue to reject the ETR machines and even those who have them use fraudulent methods to evade paying taxes by not issuing receipts after sales or offering a service; some cases are still pending in court. Swanson (2000) pointed the reasons for resistance to change include among others: lack of conviction of need for change; dislike of imposed change/no involvement in the change; dislike of surprises/no information for readiness, fear of the unknown, and uncertainty; reluctance to deal with unpopular issues; fear of inadequacy and failures due to need for new

skills; disturbed practices, habits, relations and familiarity; and lack of respect and trust in persons promoting change.

Sacks *et al.* (1993) developed a theory, which advocates that males tend to display positive attitudes towards the use of these devices, regardless of the level of familiarity, while females' attitudes become more positive as the levels of familiarity increases. Brief (1998) argues that females tend to be resistant to the use of fiscal electronic devices while males accept to the change in the motor industry. Baack *et al.*, (1991) evidenced that older adults indicated that they are less likely than their younger counterparts to use these devices unless there is a perceived need. The same study attributed the low usage rates to low levels of familiarity.

Liden and Adams (1992) pointed that older individuals do not respond as well to rapid change as their younger counterparts unless the change is gradual overtime. Arthur *et al.*, (1990) identified a positive relationship between educational ability and familiarity with these electronic devices. The authors suggested that employees with low educational ability levels might consciously opt not to become familiar with these electronic devices due to the challenging nature of the technology. Gardner *et al.*, (1993) identified a positive correlation between experience with electronic devices and attitudes towards them. Not surprisingly, negative experience with these electronic devices correlated with negative beliefs and attitudes towards the technology. Employees with positive experience also espoused positive attitudes towards the devices.

Lumumba *et al.*, (2010) stipulated that the preparation of VAT returns at the end of the month by using EFD machine may take different time range since the businesses prepare and file their VAT returns in good time to beat the tax authorities' deadlines. Businesses sometime seek the involvement of tax agent's services in filling tax returns and with a proportion of the proportion of the monthly VAT returns paid to the agents.

### 3.0 Research Methodology

This study was conducted in Dodoma which is the capital city of Tanzania targeting the tax payers using EFDs in revenue collection. The researcher uses data obtained from mini supermarkets, shops hardware and hotels to represent the total population. The study adopted a cross sectional research design; the adoption of cross sectional research design is justifiable on the basis that it is the most common design used in survey research for producing good results. The target population was 297 tax payers at Dodoma who are using the EFD machine (TRA 2015). The target population of the VAT and none VAT holders in Dodoma were suitable due to the fact that the most of the qualified tax payers had been registered with the EFDs machine. Sample size of this study was computed from the population. Therefore the sample size in this study were obtained from the sample frame in the study area by using the formula by Yamane (1967) as follow,

$$n = \frac{N}{1+N(e)^2} = \frac{297}{1+297(0.1)^2} = 75$$

Whereby; n = sample size; N = total number population of taxpayers; e = margin of error with confidence level of 10%.

Under probability sampling technique a simple random sampling were employed to obtain the respondents from different groups of tax payers who use EFDs in different areas of Dodoma municipality. This technique was adopted because it saves time and provides an equal opportunity for the tax payers participate. Also this was necessary in order to avoid the problem of sample selection bias. Under non probability sampling purposive sampling technique were adopted to obtain respondents from TRA officials within the area under the study. Data from respondents was collected depending on their working stations. The officers'

views and information were considered to be important in determining the perceptions of tax payers on the use of electronic fiscal devices (EFDs) in revenue collection in Tanzania. This technique was employed because TRA officers were considered to be knowledgeable on the subject matter and accessible by the researcher. In generation of sample size shops and mini supermarkets were 60; 10 hardware shops; 5 hotels and 5 TRA officials.

#### 4.0 Results and Discussion of Study's Findings

EFDs program is one of the tax administration reform measures that Tanzania Revenue Authority has undertaken to ensure that registered taxpayer in the country properly records sales. The introduction EFDs in Tanzania initiatives was initially focused on improving compliance with VAT requirements; it was believed to have the capacity to transform revenue collection in this field, as it is the case with other countries. The study population comprised of tax payers using EFD machine in Dodoma who were assessed in order to capture the information regarding to tax payers using EFD machine in revenue collection. From the field, 75 respondents presented the types of Electronic Fiscal Device they were using: 88.0% of the respondents were using Electronic Tax Register (ETR); 12.0% were using Electronic Fiscal Printer (EFP) while none were using Electronic Signature Device (ESD) in revenue collection. ETR is used where invoicing is done manually while the ESD is used where invoicing is computerized. The study found out that majority of tax payers was using ETR because most of the taxpayers in Dodoma were using manual invoice compare to other types ESDs. The perception of taxpayers on the EFDs has a lot in connection on the views of the taxpayers. The following are the perception of taxpayers towards adoption of EFDs:

##### 4.1 Perception of Taxpayers' on Importance's of Paying Tax

In this part the respondents were asked to indicate their level of understanding on the importance's of paying tax as a source of government revenue. Majority of respondents respond positively (84%) of respondents revealed out that there is importance of paying tax compare to few respondents (16%) they said there is no importance of paying tax. Therefore the study conclude that majority of respondents perceive positively that there is importance of paying tax as a source of government revenue. Study results comply with Oberholzer (2007) on the perceptions of taxation amongst different groups of South African taxpayers where only individual taxpayers were included while corporate taxpayers were excluded.

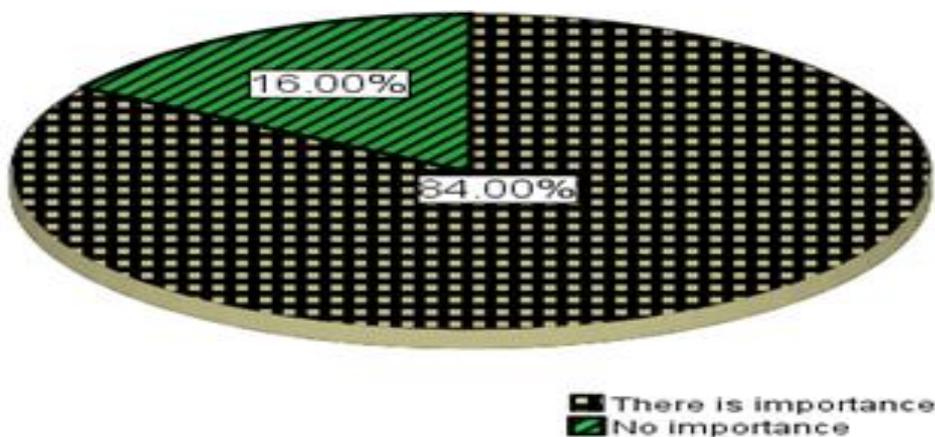


Figure 1: Taxpayer's Importance's of Paying Tax

#### 4.2 Perception of Taxpayers' on Value for Money and Services from Paying Tax

Perceptions, however, were quite mixed when it came to receiving value for money from government, with only 25% believing that the benefits received justified the amount of tax paid. Tax nature is compulsory, tax is *non-quid pro quo*, the study investigate the perception of taxpayers on the services they received from paying tax. 40% of the respondents believed that the services received from government did not represent value for money while the remaining was indecisive.

#### 4.3 Perception of Taxpayers' on Uses of Tax and Corruption

Almost 60% of the respondents felt that a substantial portion of all taxes collected were used for meaningless purposes. Furthermore, 88% believed that waste and corruption in government was high which limit proper utilization of taxes collected. These findings also indicate that the fiscal exchange argument behind taxpayer's compliance has limited explanatory power in this case. However, it is possible that the fiscal exchange argument may still hold given that the majority of people responded that they find the principle of paying taxes fair and just, but that the return on their taxes is lacking due to poor public service delivery. This may reflect fiscal exchange expectations among the populace: people are willing to pay taxes, but perceive they get little in return, partly due to wastage and corruption.

#### 4.4 Perception of Taxpayers' on Time to Prepare Sales Report after adopting EFD Machine

The study results show that 66.6% respondents were strongly agree that the machine has reduced the time it takes to prepare sales report by the taxpayers while the remaining 26.7% and 6.7% disagree and indecisive respectively. The study is in comply with Lumumba *et al.*, (2010) that taxpayers own assessment through EFD machine has reduce the time it takes to prepare sales report when used in revenue collection.

Table 1:

EFD Machine Has Reduced the Time it takes to Prepare Sales Report

Category	Response	%
Agree	50	66.6
Neither Agree nor disagree	5	6.7
Strongly Disagree	20	24.7
<b>Total</b>	<b>75</b>	<b>100.0</b>

Source: Field Data, 2015

#### 4.5 Perceptions of Taxpayers' on the Acquisition of the EFD Machine

The respondents were asked to give their opinion on what influenced the acquisition of the EFD machine in their business. The respondents indicated that acquisition of the EFD machine was through fear of being caught as indicated by majority (62.7%) of the respondents. Acquisition of the EFD machine through benefits arising were 29.3% of the respondents with rest, (8%) of the respondents indicating that the EFD machine was acquired through own willingness as shown in Table 2. Chege (2010) study on the impact of using electronic tax register on VAT compliance in Kenya was assess on what influenced the acquisition of the ETR machine in their business; respondents' views were: 55% was through benefits arising from ETR's; 30% was through own willingness while 15.0% was through fear of being caught.

Tanzanian taxpayers' resemble the deterrence theory. According to the deterrence theorists, the perceived probability of getting caught is a factor for complying with the law. The basic point advanced by theorist of this model is that, taxpayer's compliant behavior is influenced

by factors such as the tax rate, the probability of being detected and penalties imposed by the state. Therefore the study concludes that majority of tax payers they acquire EFDs because they fear to be caught compare to benefits and willingness.

Table 2:

Reasons for Acquisition of the EFD Machine

Category	Response	%
Benefits arising from ETR's	22	29.3
Own willingness	06	08
Fear of been caught	47	62.7
<b>Total</b>	<b>75</b>	<b>100</b>

Source: Field Data, 2015

#### **4.6 Taxpayers Perception on their Business Inspection by the Tax Authorities**

The respondents were asked whether their business establishment had ever been inspected by the tax authorities. Majority of the respondents (93.3%) indicated that their business had been inspected by the tax authorities and (6.7%) indicated that their business had not been inspected by the tax authorities. This may be due to resistance towards the tax system which makes the taxpayer adopt a stand against the tax office thus forcing the tax authorities to inspect them. It may also be as a result of ensuring compliance with the laid down regulations that makes the tax authority inspect the establishments.

#### **4.7 Taxpayers' Awareness on Obligations and Rights under the EFDs Governing Laws**

The respondents were asked whether they were aware of all obligations and rights under the EFDs governing laws. The result show that majority of respondents (73.3%) they were not aware of obligations and rights under the EFDs governing laws while the remaining (26.7%) they were aware with obligations and rights under the EFDs governing laws in the study area. Therefore this study conclude that majority of tax payers were not aware with obligations and rights under the EFDs governing laws which result to inefficiencies in EFDs uses in revenue collection.

#### **4.8 Taxpayers' Perception on Comfortably with the Tax System**

Respondents were required to state if they are comfortable with the tax system since tax is compulsory. Majority of the respondents (50.70%) stated that they strongly disagreed with the statement that the taxpayer is comfortable with the tax system even though tax is part compulsory. 31.0% of the respondents indicated that they agreed with the statement that the taxpayer is not comfortable with the tax system even though tax is compulsory while the remaining 17.30% of respondents were neither agree nor disagree with the argument. This can be attributed to capitulation which means that, a taxpayer may not be happy with the tax system or tax office, but they acknowledge that it is a part of life and that taxes need to be paid.

Table 3:

Taxpayers' Comfort-ability with the Tax System or Tax Office

Category	Response	%
Strongly Disagree	38	50.7
Neither agree nor disagree	13	17.3
Agree	19	31.0
<b>Total</b>	<b>75</b>	<b>100.0</b>

Source: Field Data, 2015

#### **4.9 Taxpayers' Perception on EFDs Machine Ensures Accurate Tax Rate to Be Paid By the Tax Payers**

According to the Table 5 the results show that majority of respondents (62.7%) disagree that the EFDs machine ensures accurate tax rate to be paid by the tax payers to TRA while the 25.3% agree while 12% were indecisive. The study result differ Lumumba *et al.*, (2010) that the use of ETRs improved revenue collection for their businesses, and from the results; (70%) of the respondents indicated that the use of ETRs has increased the amount of money the businesses receive from its activities in a given period, mostly from sales of products or services to customers. This means the ETRs insure the accurate tax rate to be paid which result to increase revenue collection on their business.

#### **4.10 Challenges towards the Use of the EFDs in Revenue Collection** **Challenges in Using an EFD System in Business**

The respondents were asked to give their opinion on challenges facing them on using EFD machine in their business. The respondents revealed that majority (57.3%) were facing challenges on using EFD machine while the remaining (42.7%) were not facing the problem on the using of EFD machine in revenue collection. The results are as indicated in the Table 4. This complies with the results obtained by Casey and Castro (2014) on their study on EFDs' Taxpayer Compliance and Administrative Efficiency'' in Ethiopia and Kenya. The study findings revealed that there some challenges in the adoption of EFDs' technology particularly the universal requirement of English as the main language in the devices; scarcity of devices in the initial stages of implementation, and price of devices were expensive.

##### **4.10.2 Official Instructions on the Use of EFD System in Business**

The respondents were asked to indicate whether they receive any official instructions on how to use an EFD system in revenue collection. Majority (78.7%) of the respondents indicated that they were not receive official instruction on how to use an EFD machine on tax collection while the remaining (21.3%) respondents received official instructions on how to use EFD machine in their business. Majority of respondents revealed that during the implementation stage didn't receive official instruction from tax officials on how to use the device. They pointed out that more education was needed on how to use and the importance of using the machine on their business.

##### **4.10.3 The Purchasing Price of EFDs Machine**

The participants voiced their concerns that the purchasing price of EFD machine was not reasonable as the majority of respondents blame that the price of EFDs was high (62.7%) compare to the remaining respondent (37.3%) who revealed that the price of EFD machine was reasonable. Those who revealed that the price was not reasonable they said that this machinery have high cost of buying in connection to their business. The cost was high in relation to their low capital to run their business. The taxpayers suggested that the government through TRA could either provide EFDs to them free in order to influence more people affordability to acquire and use EFDs in their business or to reduce EFDs prices.

Magutu *et al.*, (2010) study in Kisii show that the price of ETRs was expensive which limit taxpayers to acquire those machines.

#### 4.11 Suggestions Made by Taxpayers to the TRA for Effective EFDs.

The respondents were asked to give some suggestions to the Tanzania Revenue Authority (TRA) regarding electronic fiscal devices on revenue collection by taxpayers. From the research findings, the respondents made the following suggestions:

- i. The fiscal tax invoice is not durable as they are not readable after a short period of time, also the receipts do not show the description of items purchased they create problems between tax payers, customers and TRA.
- ii. In their opinions, they suggested that government through TRA should rethink and come up with more durable materials with regard to fiscal invoices and Z report. It is unfortunately noted that that TRA take all these short falls as offences to the taxpayers and imposing penalties.
- iii. The findings revealed that there was low number of agents to supply the electronic fiscal devices machinery compare to the high number of tax payer's available in the country. Presence of the few agents available were limit their services to the EFDs users such as education and training programs on how to use the machines; how to deal with network problem; how to troubleshoot the machine; etc these needs some skills to overcome and its a challenge to unskilled taxpayer to resolve the problem.
- iv. Tax payers suggests that TRA should make sure that there is enough number of agents supplying EFD machine in order to reduce the problem created with low number of agents in the study area.
- v. The findings also revealed that tax payers were facing networking problem, since these devices uses network to transfer information from taxpayers businesses to the TRA which led tax payers to fail producing Z report and print the receipt to customers at a right time. This situation discourages the taxpayer and customers to use EFDs in revenue collection.
- vi. Tax payers suggested that TRA should introduce EFDs that have no or less network breakdown in order to increase efficiency in revenue collection by electronics fiscal devices rather than using manual methods.
- vii. The findings also revealed that the cost of buying the machine was high, according to the price of EFDs by the time of this study it was around TZS 600, 000 to TZS 800,000 which is expansive according to most of taxpayers, majority of respondent said that machinery is very expensive which affect their capital and affordability to buy the machine even though TRA compensate the taxpayers through deduction in tax.
- viii. They suggest that the government through TRA should reduce or subsidize the prices of EFDs in order to encourage more tax payers to afford to buy the machine or if possible to be given to tax payers free of charge as a motivation of using those devices in revenue collection.
- ix. During the conduct of this study, taxpayers revealed also that during the process inflowing data by using EFDs mistakes do occurs, to get correction at the TRA offices took a very long and confused process that needs lots of ups and down. The process has to be shortened to alleviate such complaints.
- x. Tax payers suggested that TRA should introduce EFDs that has a ability to correct the data entered by tax payers direct without consulting TRA in order to increase efficiency and reduce the time it take to make correction when mistakes occurs.

- x. The findings also revealed that most taxpayers are not educated or trained on how to use and the importance of using EFDs. At the same time, language limits proper utilization of the machine (since EFD language is in English). Not all traders are conversant with English,
- xii. EFDs machines should be translated into Kiswahili for better understanding and utilization of the machines. For example, some traders don't know how to deal with typing error problems, as once you print a receipt; the information cannot be erased from the device. Many traders don't know what to do as they don't use professional accountants or IT specialists. So the government should address this problem by provide the education on instructions and regulations which can help the tax payers especially the businessman and to insist all people to get education on how to use that electronic devices.

## **5. Conclusion and Recommendation**

### **5.1 Conclusion**

Based on the results form data analysis and findings of the research, one can conclude that respondents witnessed benefits of using EFD machine in revenue collection in many aspects i.e. EFDs has reduced the time it takes to prepare sales report; EFDs secure tax information for auditing purpose and transaction; EFDs ensure timely sales filing and reporting to TRA; EFDs print weekly, monthly and yearly reports, also majority of TRA officials witnessed benefits of using EFD machine in revenue collection such as improved compliance in filing rates; EFDs helped to decreases tax evasions; EFDs led to easy to determination of actual sales; EFDs facilitates assessment taxpayers' tax liability easily; EFDs improved tax administration by creating easily approach to monitor taxpayers through EFD management system and increase efficiency in tax revenue collection.

The EFDs system in Tanzania as any other developing countries face number of challenges such as networking problem, tax payer not having enough education on how to use and the importance of using EFDs, the high cost of buying the EFDs, the fiscal tax invoice is not durable as they are not readable after a short period of time (durability of EFD receipts), also the receipts do not show the description of items purchased they create problems between tax payers customers and the (TRA), and low number of agents to supply the electronic fiscal devices machinery compare to the high number of taxpayer's available in the country.

### **5.2 Recommendations**

EFDs practice in revenue collection is a new technology in Tanzania. This tax collection system requires considerable effort and involves costs both to the taxpayers and authorities in identifying the technology, selecting the devices, overseeing their deployment, and monitoring their use and to the affected taxpayers in addressing the requirements of the new rules. Moreover, EFDs appear to suffer from similar challenges as other governments if there is no effective follow up and enforcement measures by the tax authorities. Absence of effective compliance, monitoring and enforcement, overall revenue collection cannot be improved, with or without EFDs. Proper consideration of the following essential issues found in the study area must be taken into consideration for a successful implementation and improvement in using EFD machine in revenue collection in Tanzania and any other developing country:

- i. *Participation*; Involvement of stakeholders in the whole process has impact in the implementation process. Explaining and discussing changes by involving all stakeholders such as tax payers, employees and suppliers before it is implemented is essential. Tax payers should be involved from the initial stages in order to get their views before

implementation stage and employees should also, where possible, be involved in the planning and implementing the changes. (This participative change approach argues that allowing people to play a part in the process reduces psychological uncertainty and insecurity).

- ii. *Sensitization, Education and Training*; The TRA needs to embark on sensitization, education and training programs in order to address the challenges which are still affecting the implementation of the EFDs system. More stake-holders need to be sensitized to reduce the resistance and also to increase the coverage on the use of the system.
- iii. *Government to Reducing the EFDs Threshold to accommodate all Taxpayers*; The Government should consider revising the law on the requirements of EFD registration. The turnover of TZS.14 million should be revised downwards to about TZS.10 million in order to accommodate more taxpayers into the EFD system. The government through TRA should make sure that all taxpayer (Traders and services providers with TIN) identified by the law to use EFD machine they acquire and use those machine effectively in order to ensure equality to tax payers and increase government revenue.
- iv. *Provision of Incentives*; TRA should use incentives to motivate taxpayers participation i.e. provision of rewards to encourage change acceptance to those comply with EFDs voluntarily. Example of incentives include: taxpayers should be given incentives by reimbursing cost of purchasing the EFDs machines.
- v. *Frequent Updates of EFDs Legislation*; The legislation introducing the EFDs needs to be complemented with detailed regulations to ensure that the use of these devices conforms to the needs of the tax payers and tax administration. These regulations can be complex; their preparation, regular updating, and enforcement can involve significant resources. TRA must also develop enforcement strategies to ensure compliance. All of these measures can be costly and might require considerable resources that often could be used elsewhere with better results.

In summary, EFDs are expensive to low capital taxpayers, these cost could be paid in installments; EFDs systems should be compatible with computers in business premises rather than purchasing machines for those with computers; EFDs should be free since they benefit the government in revenue collection and not the businesses of taxpayers; TRA should introduce EFDs that can handle field sales; TRA should introduce cheaper EFDs to encounter the ones declared by taxpayers to be expensive; TRA should introduce EFDs that have less rates or breakdowns; TRA should educate taxpayers, potential business people and customers on EFDs and finally, TRA should introduce different EFD system for different businesses; and KRA should introduce reimburse servicing expenses or terminate use of ETRs.

This study was concentrated on perceptions of taxpayers on the use of Electronic Fiscal Devices (EFDs) in revenue collection in Dodoma Municipal. The researcher suggests further research could be undertaken in evaluating the impact of EFDs on VAT Compliance. Also a study on the level of EFDs adoption and compliance among rural and urban areas could also be undertaken to establish if there is a difference in compliance between the two locations. Critically further research should be done to determine EFDs challenges and opportunities while business organizations encountered and how EFDs machine is efficient to help the business and VAT returns.

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