

# Electronic Fiscal Devices (EFDs): Lessons from the Region and Mainland Tanzania



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## **Structure of the presentation:**

1. What is an EFD?
2. History and geographical distribution of EFDs
3. Drivers of EFDs
4. Benefits of EFDs
5. Challenges
6. How to make EFDs work
7. Concluding remarks

# 1. What is an EFD?

- The term “Electronic Fiscal Device” describes a wide variety of computerised devices that revenue administrations can use to help monitor business transactions
- Two main forms:
  1. **Electronic cash register (ECR):** a point-of-sale terminal that records information from barcode scanners, weighing scales, and credit and debit card machines
  2. **Electronic tax register (ETR):** an electronic cash register that calculates the tax value for every transaction made and stores this information in a permanent memory that can only be accessed by the tax agency
- A key element of these devices is the presence of a “fiscal memory”
- In mainland Tanzania, the term *EFD* refers to devices used by TRA to monitor business-to-consumer and business-to-business transactions that create a fiscal obligation for the Value-Added Tax (VAT)

## 2. History and geographical distribution of EFDs

- EFDs are widely used all over the world
- EFDs were first used in the 1980s
  - Italy (1983)
  - Followed by several other European countries, Japan, South Korea, and all over Latin America
- In recent years, accelerated deployment of EFDs in Sub-Saharan Africa
- East Africa:
  - Kenya (2005)
  - Mainland Tanzania (2010)
  - Rwanda (2014)

# EFDs in mainland Tanzania

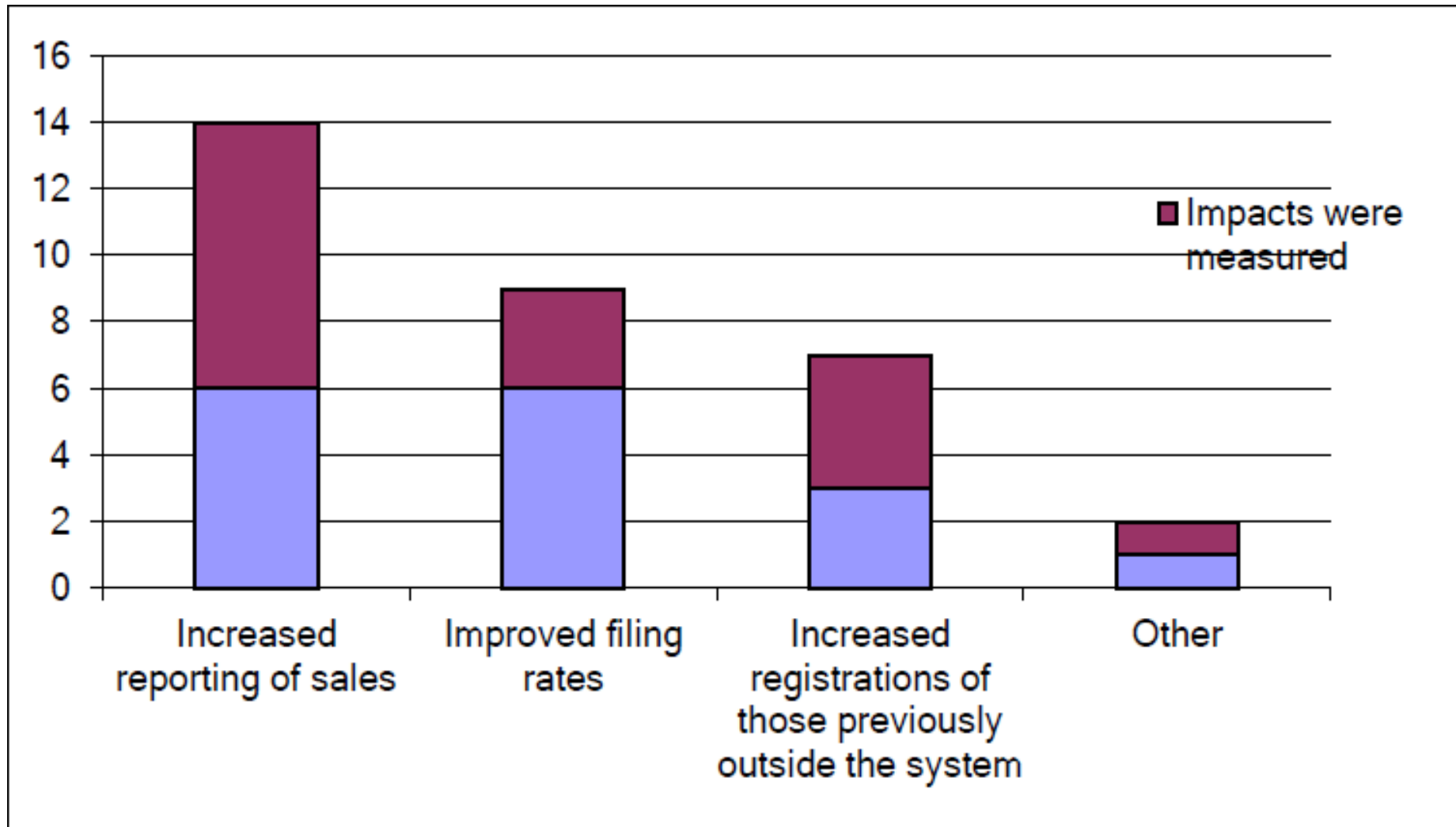
- In mainland Tanzania, the introduction of EFDs started in July 2010, under the The Value Added Tax (Electronic Fiscal Device) Regulation (URT 2012)
- Multiple objectives:
  1. To provide the TRA with correct sales information from businesses
  2. To reduce tax collection costs
  3. To encourage taxpayer compliance
- By 2012, EFDs were in use by 22,000 VATregistered taxpayers across the country
- In 2013, the number of EFD users was expanded to also include non-VAT-registered businesses
- The takeup and use of EFDs in Tanzania remains a major challenge for TRA
- VAT collection has not performed as expected (TRA 2018)

### 3. Drivers of EFDs

- Adoption of EFDs is a direct response by tax administrations to combat non-compliance by:
  - Recording sales and transactions → Improve data collected by the administration
  - Strengthen audits → Identify abnormal transaction behaviour and thus higher risk candidates for audit purposes
  - Broaden the revenue base
- EFDs seen as a major tool to reduce administrative effort and compliance costs, from the perspectives of both tax administrations and taxpayers
- The technology is now commonly available
- Production facilities in a number of developing countries make the devices accessible to businesses at reasonable costs
- Purchasing prices have decreased from thousands of dollars to hundreds of dollars

## 4. Benefits of EFDs

Survey covering 19 tax administrations across the world, incl. Kenya and mainland Tanzania (Casey and Castro 2015)



## **Benefits of EFDs (cont.)**

### **Survey covering 19 tax administrations (Casey and Castro 2015)**

- The survey indicates that EFDs implemented as part of a comprehensive compliance improvement strategy produced positive results, both in terms of additional revenue and improved taxpayer behaviour
- However, those cases where the EFDs were implemented as a standalone measure showed few, if any, results in the medium term, despite some incidental short-term revenue gains that were unsustainable



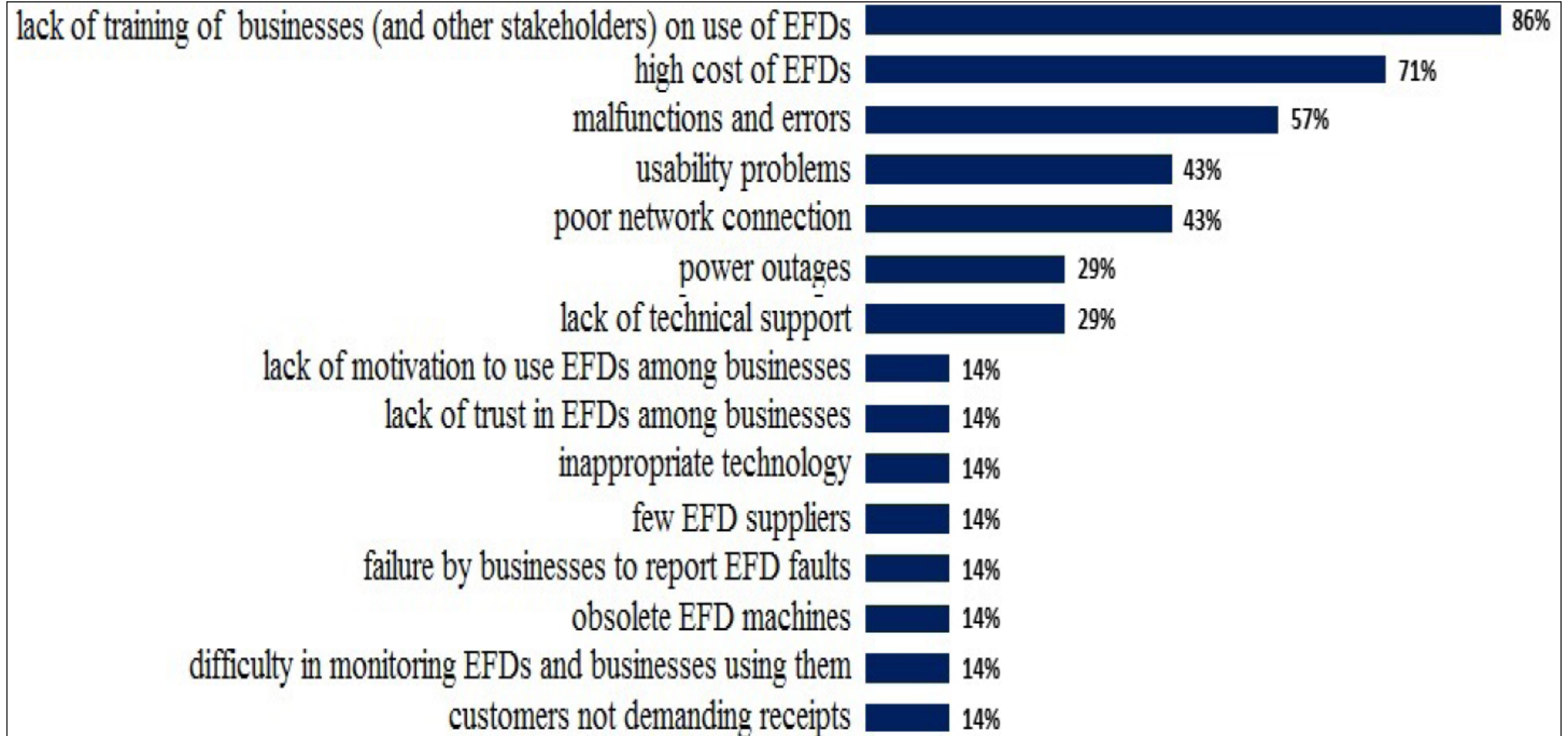
## **5. EFD challenges in Kenya, mainland Tanzania and Rwanda**

- The deployments of EFDs in Kenya and mainland Tanzania have faced significant challenges (Casey and Castro 2015; Fjeldstad *et al.* 2018):
  - Lack of skilled technical staff
  - Lack of effective compliance-monitoring
  - Lack of effective follow-up strategy
  - Absence of enforcement measures
- Steenbergen (2017): In Rwanda, the introduction of EFDs has led to only a 5.4% increase in VAT revenue, much lower than the expectation by the RRA
  - “the overall effect of EFDs on tax yields has been disappointing”

## **Impacts on revenues (general experiences)**

- The introduction of EFDs has not been associated with noticeable increases in VAT revenue as a percentage of GDP
- Other reforms are often implemented in parallel to improve revenue performance, so that revenue improvement, when it occurs, cannot be directly attributed to the introduction of EFDs

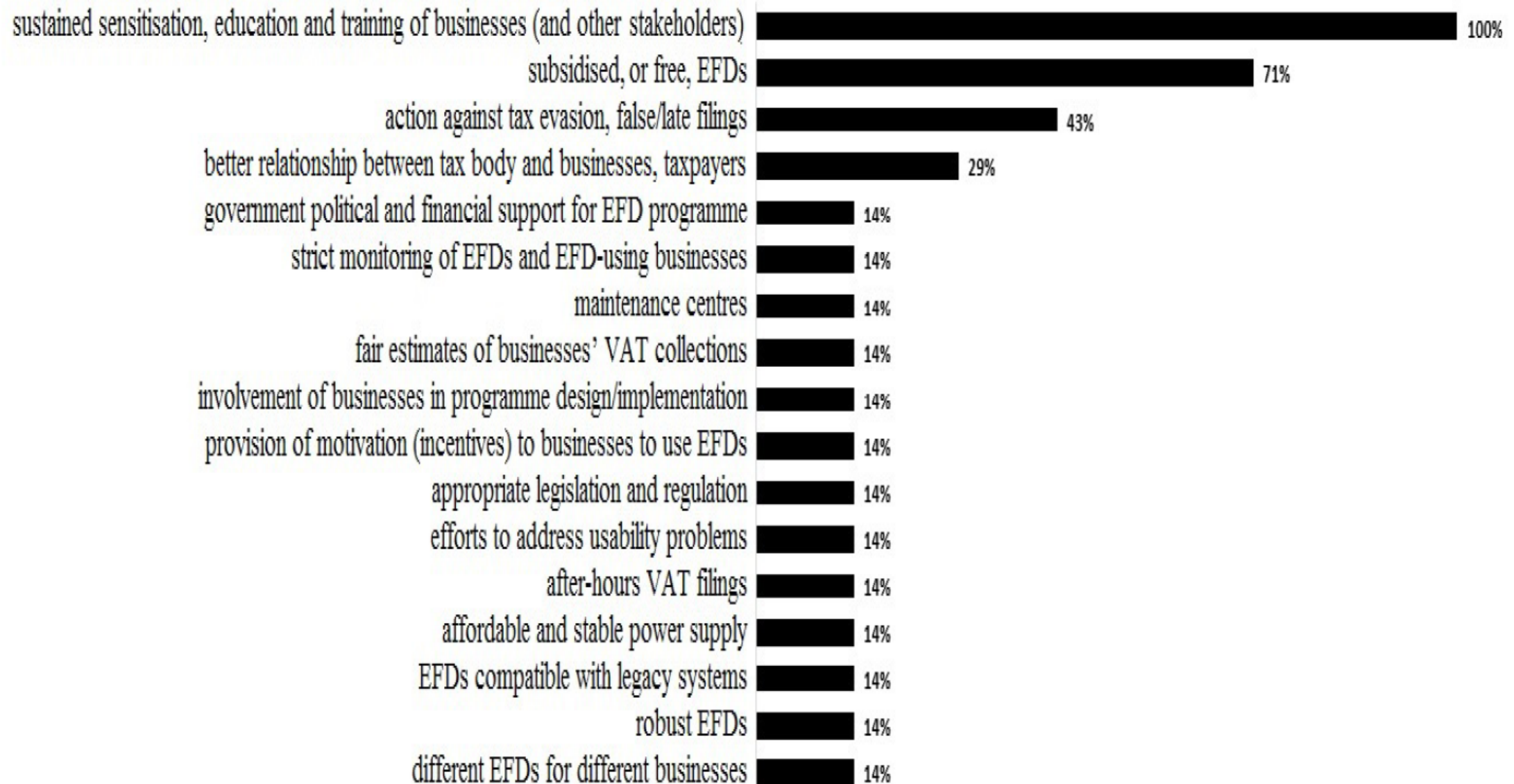
## Challenges identified with EFDs in Kenya and Tanzania (frequency of citation by all respondents in 7 studies , in %; Eilu 2018)



## 6. How to make EFDs work

- The introduction of EFDs requires considerable effort and is accompanied by associated costs to:
  - the administration - identifying the technology, selecting the devices, overseeing their deployment, and monitoring their usage
  - the affected taxpayers - addressing the requirements of the new rules
- Once the devices are chosen and available, it is essential that appropriate arrangements are put in place for their installation, support, and maintenance, which requires skilled and dedicated staff
  - Survey responses confirm that, when these arrangements were not in place or were incomplete, the implementation of EFDs faced considerable problems
  - Proper consideration of these factors is essential for a successful implementation
- EFDs appear to suffer from similar challenges as other systems if there are no effective follow-up and enforcement measures
- When effective compliance monitoring and enforcement are absent, overall VAT compliance cannot be improved, with or without EFDs

## Recommendations for effective adaptation of EFDs in Kenya and mainland Tanzania: Frequency of citation (in % terms, across the 7 studies; Eilu 2018)



## **How to make EFDs work:**

### **Proposed model for EFD adoption in East Africa (Eilu 2018)**

- **Technology - the EFDs must be:**
  - user-friendly
  - compatible with the legal system
  - differentiated according to types of businesses
- **Organisation - adoption of EFDs requires:**
  - skilled and dedicated technical support staff
  - maintenance centres
  - sensitisation, education and training of businesses, customers and other stakeholders
  - enforcement of VAT law
  - monitoring of EFDs and their users
  - good relations between the tax administration and businesses/taxpayers
  - incentives for business EFD take-up
  - incentives for customers to request receipts
  - provision for after-hours VAT filings
- **Environment - adoption of EFDs requires:**
  - government political and financial support
  - appropriate legislation and regulation
  - stable internet connection

- **To succeed in improving compliance, EFDs must be complemented with other measures:**
  - Taxpayer education
  - Additional audit treatments
  - Alliances with business associations
  - Measures to incentivise taxpayers (→ lotteries?)

## **The customer is king: Evidence on VAT compliance in Tanzania**

(Fjeldstad *et al.* 2018)

- Study of VAT-registered companies' use of EFDs in Dar es Salaam
- Customer knowledge essential to increase compliance
  - Enhance TRA's taxpayer education and information campaigns
- Business compliance can also be improved by
  - Strengthening detection probabilities and enforce penalties
    - Improve the Block Management System (BMS)
  - Improve technical services for the EFDs – esp. network connection
- Longer term policy measures
  - Visible improvements in public service delivery



## **Further research on EFDs in mainland Tanzania:**

- Extend the study to other regions in Tanzania
- Extend the study to non-VAT registered EFD-users
- Test by experimental design different approaches to enhance compliance
  - *Customer lotteries*
  - Audit threats
  - Improved information to customers
  - Improved reimbursement of VAT refunds

## *Lotteries*

- Governments around the world are encouraging consumers to ask for receipts by turning them into lottery tickets
- The aim is to make it harder for retail businesses to evade taxes
  - Worldwide, 20-35% of government revenue comes from VAT (or similar taxes on consumption)
  - As much as 1/3 of what should be collected is thought to be forfeited because businesses under-report revenue
- The idea of a receipt-lottery scheme is to give customers an incentive to ask for receipts, thereby forcing sales to be recorded and taxed
- Receipts might be printed with a code that can then be submitted into a central draw.
- Digital technology means schemes are cheap to run, even allowing for the cost of prizes
- Receipt lotteries allow governments to raise revenue without raising rates
- As a bonus, they may also increase awareness of tax evasion and encourage citizens to look out for tax cheats

## 7. Concluding remarks

- Despite their widespread use, there is little documented evidence to determine whether EFDs provide a cost-effective solution to address the compliance risks that tax administrations in developing countries face
- Survey data indicate that the introduction of EFDs has not been associated with noticeable increases in VAT revenue as a percentage of GDP
- The path to successful implementation of EFDs is complex, requires legislative support, effective design of administrative and technical procedures, skilled technical staff, and extensive consultation processes with key stakeholders
- One determinant of success is the time available to prepare for the change

- The implementation of EFDs can only be effective if it is part of a comprehensive compliance improvement strategy that clearly identifies risks for the different segments of taxpayers and envisages implementing a set of measures to mitigate these risks
- The introduction of EFDs presents opportunities for the tax administration to rethink its approach to business processes, not only by automating the collection of information, but also by leveraging the new arrangements to improve compliance approaches and strategies

***- Technology itself will not change behavior -***

# Literature

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THANK YOU FOR YOUR ATTENTION!

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