

## CUSTOMERS PLAY AN IMPORTANT ROLE IN SHAPING FIRMS' VAT COMPLIANCE

### BACKGROUND AND MOTIVATION



Value added tax (VAT) is one of the main modes of raising tax revenue worldwide but has significantly underperformed as a revenue collection tool in Africa. Non-compliance by taxpayers is a major challenge. This Misum Academic Insight explores the extent to which Tanzanian businesses are VAT compliant and the factors explaining compliance.

Practical problem: The Government of Tanzania is striving to improve the effectiveness of its VAT regime and reduce tax evasion through a combination of measures. Initiatives have included improved tax legislation and more effective administrative processes. Electronic Fiscal Devices (EFDs) were introduced in 2010 with the ambition of reducing administrative and compliance costs for the Tanzania Revenue Authority (TRA) and businesses. They were designed to ensure more accurate reporting of VAT by automatically transmitting information about sales and other transactions to the TRA. However, VAT collection has not improved as expected after the introduction of the EFDs. For the EFDs to improve VAT compliance it is crucial that businesses use them to register transactions, which is required by legislation.

In this project, we aim to disentangle whether and why this is the case by asking:

- 1.) Do businesses use the EFD to issue receipts to customers?
- 2.) What factors affect their decision to issue an EFD receipt or not?

### RESEARCH METHOD

#### Sample:

The study was conducted in the commercial capital of Tanzania, Dar es Salaam, in collaboration with the Research Policy and Planning Department of the TRA. The data was collected in June and July 2017. We randomly sampled businesses from the five tax centres with the largest number of VAT-registered taxpayers: Upanga, Kariakoo, Buguruni, Tegeta and Mwenge. The data was collected by surveying (i) a business representative from each of the selected businesses, and (ii) a customer in the premises of each business. The total sample consisted of 314 business-customer pairs.

#### Method:

Measurement of EFD compliance: As people typically do not want to reveal illegal behavior, a major challenge in tax research is to observe actual compliance. To navigate this problem, our study designed an innovative customer survey to identify which businesses used the EFD and which businesses did not. An enumerator approached the first customer to leave each business and asked the following questions:

- Did you automatically receive a receipt from the business representative?
- If not: did you demand a receipt?
- If yes: did you eventually receive a receipt?

#### Method (continued):

The enumerators then visually inspected the receipts to verify if they had been issued by an EFD machine or not. The enumerators were TRA researchers recruited as consultants by the Chr. Michelsen Institute (CMI). To ensure that the respondents felt free to answer the questions honestly without fear of detection and punishment, the enumerators presented themselves as CMI consultants.

Measurement of factors explaining EFD compliance: Informed by the literature on tax compliance, we included questions to capture perceived risk of punishment, tax morale and fairness, beliefs about other businesses' compliance, and satisfaction with public services and tax administration in the business representative survey.

In the customer survey, we tested if customers were aware they could be fined for not having a receipt and also measured customers perceived probability of detection. Basic demographic background questions were included in both surveys. Our approach allowed us to investigate how the customers' actions and characteristics interacted with those of the business, and the business representative, to shape EFD compliance.

An important feature of the approach was that both business representatives and customers were not aware that receipts would be checked. It was essential that we measured 'normal' behavior (as it would be without the study). Therefore, we collected only one observation per business, since it was likely that behavior in a second observation would have been affected by the fact that the receipt of a previous customer had been checked.

## RESULTS I



### EFD compliance

Using descriptive analysis, we found that overall, the EFD compliance rate was quite high. 75% of businesses in the study issued a receipt to the customer. However, only 52% of the businesses were voluntary compliant, meaning that they printed an EFD receipt without the customer requesting it. The remaining 23% of compliant businesses were induced to comply, i.e., they printed an EFD receipt only after the customer requested it. Customer behavior (asking for a receipt) explains a third of the observed compliance.

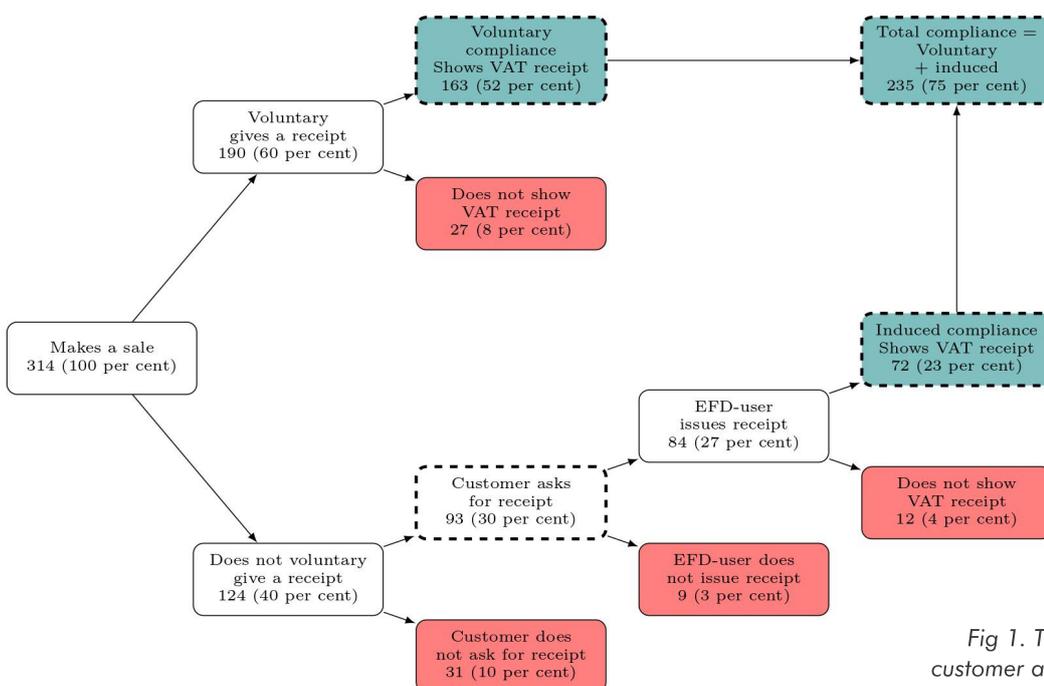


Fig 1. The interaction between the customer and the business representative

## RESULTS II



### Factors explaining EFD compliance and customer behavior

Using regression analysis, we investigated correlations between EFD compliance and characteristics of businesses and business representatives, and between customer behavior (asking for a receipt) and their characteristics. We found that perceived VAT compliance of other businesses is the most important factor associated with businesses' EFD-compliance. On the customer side, knowing about their legal obligation to obtain an EFD receipt is the most important factor affecting whether customers request a receipt when not automatically receiving one.



### ► Customers can be leveraged in increasing businesses EFD compliance

The study shows that customers play an important role in shaping EFD-compliance: customers requesting receipts accounted for 1/3 of observed compliance. Thus, interventions targeted at increasing customer demand for receipts could potentially increase EFD compliance, and ultimately, VAT revenues.

Informing customers about their obligations may be an effective tool to increase EFD compliance according to the study results. Thus, taxpayer education programs and information campaigns should emphasize customers' rights and obligations to get a proper VAT receipt when they purchase goods and services.

Increasing detection probabilities and enforcing penalties for non-compliance on the customer's side could have positive effects on EFD-compliance. Other interventions that incentivize customers to request receipts (such as VAT lotteries) are expected to have beneficial effects on EFD use and VAT compliance.

Whether some interventions (e.g., information campaigns or VAT lottery) are more efficient than others in improving compliance is an important open question that requires further research enquiry to be answered.

### ► Perceived compliance of other businesses vs actual compliance

The study also shows that perception of other businesses' compliance is an important factor shaping EFD compliance. Research from other regions (Europe and Latin-America – see [Antinyan and Asatryan, \(2020\)](#) for an overview of field experiments on tax compliance) has shown that information campaigns highlighting compliance of other taxpayers can have a positive effect on tax compliance and revenues. However, there are also studies that show no effects such information intervention. In our sample, we find some evidence that business representatives overestimate the compliance of others. Thus, providing information about actual compliance rates to businesses may backfire and lead to a reduction in compliance and thus should be considered very carefully.

## DIRECTIONS FOR FUTURE RESEARCH

There are multiple new lines of enquiry that this study has served to highlight. The study could only report on certain outcomes, for example whether a receipt was printed or not, and whether the transaction was recorded by the EFD. We could not verify whether the amount stated was correct. It is possible (and likely) that some businesses reduce their VAT payments by recording lower amounts on the receipt than the price paid. This form of non-compliance could not be measured in our study. Actual tax compliance can therefore be potentially lower than what has been possible to estimate in this study is an avenue for future research.

As the study was limited to five tax centers in Dar es Salaam, businesses and customers were located in areas that were relatively easy to access by the enumerators. It is reasonable to assume that the compliance rate in these urban locations is higher than in other areas because enforcement capacity is typically higher than in more rural locations with fewer businesses. Exploring this question is another important area for future research. In conjunction, it was not possible to tell why different customers hold different beliefs about the risk of punishment from our collected data. This is an important question that requires further inquiry. Understanding how customers' beliefs are formed and whether they can be influenced would allow for making firmer recommendations. In particular, empirical investigations of exogenous changes in the incentives that the customers face, for example through information campaigns or customer lotteries, could be used to confirm our interpretations. In collaboration with TRA, we have recently started a new project to investigate these issues.

## ACADEMIC REFERENCE

Fjeldstad, Odd-Helge, Cecilia Kagoma, Ephraim Mdee, Ingrid Hoem Sjørnsen, and Vincent Somville. "The customer is king: Evidence on VAT compliance in Tanzania." *World Development* 128 (2020): 104841.

*Research collaboration with Tanzania Revenue Authority.*