

# When taxes become visible: Behavioral responses to mobile money taxation in Tanzania

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## Summary

Taxes on mobile money transactions are increasingly used to mobilize government revenue in low- and middle-income countries. However, little is known about how the *visibility* of these taxes affects user behaviour. This brief presents evidence from a lab-in-the-field experiment with 618 small business owners in Dar es Salaam, Tanzania, examining how tax salience influences the willingness to use mobile money. The findings suggest that making taxes more visible can shift behaviour away from digital payments toward cash transactions, potentially affecting financial inclusion, tax revenue, and trust in public institutions.

## Background and policy challenge

Mobile money has become a central component of financial systems across Sub-Saharan Africa. By allowing users to transfer funds and conduct transactions through mobile phones, these services have expanded access to financial tools for individuals and small businesses that lack traditional bank accounts.

At the same time, many governments have introduced taxes on mobile money transactions as part of broader strategies to strengthen domestic revenue mobilization. These taxes are often seen as administratively attractive because they are relatively easy to enforce: mobile network operators collect the tax automatically when transactions occur.

In Tanzania, the government introduced an *Electronic Money Transaction Levy* in 2021. The tax applied to mobile money transfers and withdrawals and was introduced alongside existing taxes and fees on mobile money services.

## Key messages

- Transaction taxes on digital financial services are increasingly used to raise government revenue in low- and middle-income countries.
- Experimental evidence from Tanzania shows that making the mobile money tax more visible significantly reduces individuals' willingness to use mobile money.
- The effect is not driven by lack of knowledge: most participants were already aware of the tax and able to estimate its size.
- Increased tax visibility may encourage substitution from digital payments to cash transactions, with potential implications for financial inclusion and tax revenue.
- Policymakers should consider not only the level of taxes, but also their visibility and presentation, when designing digital transaction taxes.

The levy generated substantial public debate. Critics argued that the tax increased transaction costs, discouraged digital payments, and disproportionately affected low-income users. In response to these concerns, the government reduced the tax rates several times between 2021 and 2022.

Despite these adjustments, policymakers across the region continue to grapple with an important question: how do taxes on digital financial services affect user behavior and financial inclusion?

## Why tax visibility matters

Traditional economic models assume that individuals fully incorporate taxes when making economic decisions. However, evidence from behavioral economics suggests that individuals may respond differently depending on how visible or salient a tax is at the moment a decision is made.

Tax visibility (“salience”) refers to the extent to which a tax is noticed and considered by individuals when making choices. Taxes that are embedded in complex pricing structures or bundled with other fees may receive less attention. When the same taxes are highlighted or explicitly mentioned, individuals may respond more strongly.

Mobile money transactions typically involve multiple cost components, including operator fees, withdrawal charges, and taxes. Because these costs are bundled together, the tax component may not always be fully considered when individuals decide whether to use mobile money.

Understanding how tax salience affects financial behavior is therefore important for designing policies that balance revenue generation, financial inclusion, and economic efficiency.

## Evidence from Tanzania

This brief draws on evidence from a lab-in-the-field experiment conducted with small business owners in Dar es Salaam.

A total of 618 participants were recruited from markets across the city. Participants were randomly assigned to one of two groups:

1. **Control group:** Participants made decisions between receiving payments in cash or mobile money without any reminder about the tax.
2. **Salience treatment group:** Participants were repeatedly reminded that mobile money transfers involve taxes and operator fees.

Participants then completed a series of incentivized decisions between receiving payments via cash or mobile money. These choices allowed researchers to measure participants’ willingness to pay (WTP) to receive payments via mobile money.

Because one decision was randomly selected for actual payment, participants had strong incentives to reveal their true preferences.

## Key findings

### *Saliency significantly reduces mobile money use*

- Participants who were reminded about the tax exhibited significantly lower willingness to use mobile money.
- On average, tax saliency reduced willingness to pay for mobile money by approximately TZS 2,500.
- At the decision level, participants in the treatment group were 9-11 percentage points less likely to choose mobile money relative to cash.
- These results indicate that behavioral responses to tax saliency can be substantial, even when the underlying economic cost remains unchanged.

### *The effect is not explained by lack of knowledge*

- One potential explanation for the observed behavior is that individuals were previously unaware of the tax.
- However, survey responses indicate that 96 percent of participants were aware of the mobile money tax. In addition, participants' estimates of the tax amount were relatively close to the actual value.
- This suggests that the saliency intervention did not primarily provide new information. Instead, it appears to have shifted attention toward a cost component that individuals already knew about but may not have actively considered during decision-making.

### *Saliency may also affect trust in government*

- The experiment also finds that making the tax more salient reduced respondents' reported trust in both the government and the tax authority.
- While the study does not establish a causal mechanism linking tax saliency to long-term institutional trust, this finding suggests that highly visible taxes may influence citizens' perceptions of public institutions.

## Implications for policy and practice

### *1. Behavioral responses should be considered in tax policy design*

- Tax policy analysis often focuses on statutory rates and expected revenues. However, this study demonstrates that behavioral responses to tax saliency can significantly affect outcomes.
- Even relatively small transaction taxes may generate larger-than-expected changes in behavior if they are highly visible to users.

### *2. Digital transaction taxes may discourage financial inclusion*

- Mobile money has played a key role in expanding financial inclusion in many developing countries.
- Taxes that increase the perceived cost of digital transactions may encourage users to substitute toward cash-based transactions, potentially reversing some of the gains associated with digital financial systems.

### *3. Revenue gains may be offset by reductions in the tax base*

- While mobile money taxes can generate government revenue, they may also reduce the volume of digital transactions.
- This can have broader fiscal implications. If digital transactions decline, governments may collect less revenue from other taxes linked to formal financial activity, such as value-added taxes.
- Policymakers should therefore consider the overall fiscal effects of digital transaction taxes rather than focusing solely on direct revenue.

#### 4. Institutional trust should be considered in tax design

- The finding that tax salience reduces trust in government institutions highlights an additional dimension of tax policy.
- Taxes that are perceived as burdensome or unfair may influence citizens' broader attitudes toward the state and tax authorities.
- Strengthening communication, transparency, and accountability may therefore be important when introducing new digital transaction taxes.

## Conclusion

As governments seek to expand domestic revenue mobilization, taxes on digital financial services are likely to remain an important policy tool. However, this study highlights the importance of considering behavioral responses to tax salience.

Evidence from Tanzania shows that simply reminding individuals about an existing tax can significantly reduce their willingness to use mobile money. These responses occur even when individuals already know about the tax, indicating that attention and perception play a crucial role in shaping economic decisions.

For policymakers, the findings underscore the need to carefully balance revenue objectives with broader development goals, including financial inclusion and trust in public institutions.

Future research and policy experimentation will be important for understanding how different tax designs influence both behavior and government revenue in increasingly digital economies.

## Further reading

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**How to cite this publication:** Fjeldstad, O.-H., Ingholm, S.N., Katera, L., Løstegård, E., Sjørnsen, I.H., Somville, V., and Vietz, J. (2026). When taxes become visible: Behavioral responses to mobile money taxation in Tanzania. *CMI Brief 2026:3*. Chr. Michelsen Institute.

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