

# Measuring the True Cost of Digital Transactions in Tanzania



The price of digital financial services (DFS) can be an obstacle to its adoption and regular use, particularly in low-and-middle income countries (LMIC). In Tanzania Innovations for Poverty Actions (IPA) is developing a transaction cost index (TCI) to measure the monetary and non-monetary costs of conducting DFS transactions. IPA researchers will test four methods to determine the most cost-effective way to accurately calculate real transaction costs. Results will include a report with the costs of different mobile money transactions and a cost-effectiveness analysis of the different methodologies tested. IPA researchers hope to then scale this index to other contexts.

## Policy Issue

Digital Financial Services (DFS) allow users to transfer funds quickly and relatively inexpensively across long distances. This allows users to pool risks over dispersed social networks. For example, an individual that suffers a health shock could request assistance from friends and family, even those living far away. Similarly products like mobile money allow workers to move into more productive occupations in urban centers while sending money home quickly and easily.<sup>[1]</sup> Despite the benefits, take up of DFS remains low, particularly among vulnerable populations. For example, in Tanzania, only 30 percent of low-income women have an account at a financial institution.<sup>[2]</sup> The price of DFS could be a barrier associated with low adoption. . In Niger and Tanzania, research reveals that demand for mobile money transfers declines as transaction costs increase and vice versa.<sup>[3]</sup> This finding suggests that costs are critical to improve financial inclusion.

However, there are limited efforts to systematically measure and monitor the true cost of conducting common DFS transactions such as person-to-person transfers or cashing out electronic funds. The World Bank's Remittance Prices Worldwide database contains quarterly data on the cost of sending international remittances from 48 sending countries to 105 receiving countries. While this index covers official prices and exchange rate spreads to send money between countries, only smaller projects have measured the cost of certain DFS transactions, perhaps in part because of the complexity of creating a standardized measurement approach.

## Evaluation Context

With an overall mobile money penetration rate of 39 percent<sup>[4]</sup>, Tanzania has a relatively mature digital

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### COUNTRY

Tanzania

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### PROGRAM AREA

Financial Inclusion

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### TIMELINE

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financial service market, though there is significant room for growth. Cost of mobile money has recently been of particular interest in Tanzania as the government's approach to taxation of mobile money transactions has shifted. Increased taxes, which led to higher costs to consumers, corresponded with a reduction in usage of mobile money services in the country.<sup>[5]</sup> Additionally, the Bank of Tanzania is [introducing an interoperable payment switch](#) that allows for easier transfers between mobile money providers which should lead to a decline in consumer prices for these types of transactions.

IPA's Financial Inclusion Program is conducting [research into the impacts of these interoperable payment systems](#), including work in Tanzania which may make use of data collected as part of this study.

## Details of the Intervention

*Note: This study is not a randomized trial*

In Tanzania, IPA is developing a transaction cost index (TCI) to measure the impact of monetary and non-monetary costs of conducting DFS transactions. Researchers will capture the real cost of common transactions using the following methods:

- Mystery shopping: Trained research staff will try to collect and withdraw mobile money at agent locations as if they were normal users.
- Surveys: Research staff will survey actual users about their experience with mobile money agents.
- Remote mystery shopping: Trained research staff will transfer money to users and ask them to conduct and record their normal transactions.

The research team will also evaluate the cost effectiveness of these methods to determine which approach is better suited to developing a transaction cost index in other countries. In addition, the research team will track official prices publicly listed by financial institutions and follow policies that could affect transaction costs, such as fee caps.

## Results and Policy Lessons

Research ongoing; results forthcoming.

## Sources

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<sup>[1]</sup> BMGF, 2021. Research Brief: The Impact of Mobile Money on Poverty. Bill and Melinda Gates Foundation. [https://docs.gatesfoundation.org/Documents/ImpactofMobileMoneyonPoverty\\_ResearchBrief.pdf](https://docs.gatesfoundation.org/Documents/ImpactofMobileMoneyonPoverty_ResearchBrief.pdf).

<sup>[2]</sup> The Global Findex Database 2018: Measuring Financial Inclusion and the Fintech Revolution <https://globalfindex.worldbank.org/sites/globalfindex/files/countrybook/Tanzania.pdf>.

<sup>[3]</sup> Aker, Jenny C., Silvia Prina, and C. Jamilah Welch, 2020. Migration, money transfers, and mobile money: Evidence from Niger." In *AEA Papers and Proceedings*, vol. 110, pp. 589-93. Nicholas Economides and Przemyslaw Jeziorski, "Mobile Money in Tanzania," *Marketing Science* 36, no. 6 (November 2017):

815–37, <https://doi.org/10.1287/mksc.2017.1027>.

<sup>[4]</sup> \_ The Global Findex Database 2018: Measuring Financial Inclusion and the Fintech Revolutio  
<https://globalfindex.worldbank.org/sites/globalfindex/files/countrybook/Tanzania.pdf>

<sup>[5]</sup> \_ GSMA 2021.Tanzania Mobile Money Levy Impact Analysis.  
<https://www.gsma.com/publicpolicy/resources/tanzania-mobile-money-levy-impact-analysis>.