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Measuring the True Cost of Digital Financial Services

IN TANZANIA
YEAR 2

A world map with a dark teal background and white outlines of continents and countries. The country of Tanzania in East Africa is highlighted in a solid orange color. The word "TANZANIA" is written in white capital letters on the orange area. In the top left corner, there is a decorative horizontal line of seven white dots of varying sizes.

Despite evidence that reducing the cost of mobile money and other services is key to improving financial inclusion, and that transparent pricing is a key feature of well-functioning markets, little has been done to systematically monitor the true cost of conducting digital financial service (DFS) transactions or the ease of accessing information about fees. A study by Innovations for Poverty Action (IPA) in Bangladesh, Tanzania, and Uganda focused on three main areas: price transparency, monetary costs, and reliability. The study was conducted over two years. In the first year of fieldwork, we piloted three different methods of data collection. The second year concentrated on a refined version of the best performing method, mystery shopping by local consumers, according to our metrics on affordability, adaptability, data quality, and observer effects.

This brief provides an overview of findings from the second year, focused on Tanzania. Similar briefs for Bangladesh and Uganda are available [here](#).

Methodology



Mystery shopping

Fieldwork was conducted to capture costs beyond official fees (carried out in 2023). We worked with local consumers in Bangladesh, Tanzania, and Uganda, who visited agents in locations from major cities to small rural communities. The following activities were involved:



Local consumers were recruited through a household survey



The consumers carried out mystery shopping visits with agents close to their homes



Methodology

WORK IN TANZANIA



Work in Tanzania

Specifically for Tanzania, we looked at the following:

3

mobile money providers:

- Airtel
- Tigo
- Vodacom

40

locations for fieldwork – 10 urban locations in Dar es Salaam and Mwanza and 30 rural locations in Morogoro and Tanga with a total of 385 agents (193 in urban areas and 192 in rural areas)

1,304

mystery shopping visits

10,000

mystery shoppers attempted to make transactions of TZS 10,000

Findings

Key findings are presented here for Tanzania. First, we share descriptive statistics about mobile money markets in Tanzania: specifically characteristics of agents, customers, and transactions. Next, we present findings related to price transparency, or lack thereof. The next section covers the extent of overcharging by agents. Finally, we explore issues of reliability, including issues around agent presence and failed transactions.

Agent characteristics

Table 1 displays a key set of agent characteristics. We disaggregate results by rural and urban agents as well as male and female agents.

Table 1: Agent characteristics

	Overall	Rural	Urban	Male Agents	Female Agents
Agent Characteristics					
Percent female	34.59	24.15***	43.96***		
Percent above 30 years old	34.97	36.63	33.48	38.10**	29.05**
Percent dedicated (no business besides providing agent services)	58.96	64.06***	53.89***	61.66	61.20
Percent exclusive (only serve one provider)	23.64	38.54***	8.81***	21.92	17.52
Agent appears to have many customers	51.69	31.25***	72.02***	52.17	59.20
Mean number of other agents within 200m	13.83	10.45***	17.19***	14.06	13.61
Presence rate	84.68	80.34***	88.99***	Unavailable	Unavailable
Success rate (conditional on presence)	77.30	72.45***	81.66***	75.97	79.82
Mean security score (1-10)	7.90	8.18***	7.65***	7.82	8.05
Mean privacy score (1-10)	7.48	7.88***	7.11***	7.40	7.63
Mean attitude score (1-10)	8.08	8.33***	7.85***	8.01***	8.20***

Stars used to indicate significance of differences between urban/rural and between male/female. The same significance stars are displayed for urban and rural columns, and for male and female columns. * p < 0.10, ** p < 0.05, *** p < 0.01

Customer characteristics

Table 2 displays a set of characteristics of local consumers, including their previous experience using mobile money. We disaggregate results by rural and urban customers as well as gender of the customer.

Table 2: Customer characteristics

	Overall	Rural	Urban	Male	Female
Customer Characteristics					
Percent female	50.62	50.83	50.00		
Age, median	34	35	30.5	36*	32*
Percent with some secondary education	33.75	25.00***	60.00***	34.18	33.33
Mean length of mobile money account ownership (years)	6.64	6.24	7.85	7.81**	5.51**
Percent who did an agent transaction in the last 7 days	65.00	60.83	77.50	72.15	58.02
Mean number of agent transactions made in the last 90 days [†]	14.66	10.25***	27.88***	14.27	15.04
Mean number of agents with whom typically transacts	2.02	1.96	2.23	2.25**	1.80**
Percent that can do a person-to-person transfer without the help of an agent	80.62	76.67*	92.50*	88.61*	72.84*
Percent that knows the price of a hypothetical cash-out transaction	5.60	1.04***	20.69***	1.82	8.57
Percent of payments (for goods, services, and bills) made using mobile money	14.11	12.04**	20.30**	16.96*	11.32*
Percent who experienced a significant challenge with a mobile money agent in the last 90 days	11.32	11.67	10.26	16.67*	6.17*
Percent with outstanding debt on mobile money account	8.75	6.67	15.00	8.86	8.64

Stars used to indicate significance of differences between urban/rural and between male/female. The same significance stars are displayed for urban and rural columns, and for male and female columns. * p < 0.10, ** p < 0.05, *** p < 0.01
[†] Sum of all cash-in, cash-out, and account transfer transactions made with an agent.

Transaction characteristics

Table 3 displays characteristics of the last successful transaction that the consumer completed with an agent, disaggregated by rural and urban customer and gender of the customer.

Table 3: Transaction characteristics

	Overall	Rural	Urban	Male	Female
Transaction Characteristics					
Of last successful transaction:					
Median transaction amount	10000	10000	12000	13000*	10000*
Transaction Type					
Cash-in	20.00	16.67	30.00	25.32	14.81
Cash-out	51.88	56.67*	37.50*	43.04*	60.49*
Over-the-counter transfer	13.75	14.17	12.50	17.72	9.88
Account-to-account transfer (agent assisted)	6.88	6.67	7.50	5.06	8.64
Other	5.62	4.17	10.00	6.33	4.94
Provider used for the transaction					
Airtel	36.88	39.17	30.00	36.71	37.04
Tigo	51.88	58.33**	32.50**	50.63	53.09
Vodacom	0.00	0.00	0.00	0.00	0.00

Stars used to indicate significance of differences between urban/rural and between male/female. The same significance stars are displayed for urban and rural columns, and for male and female columns. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$



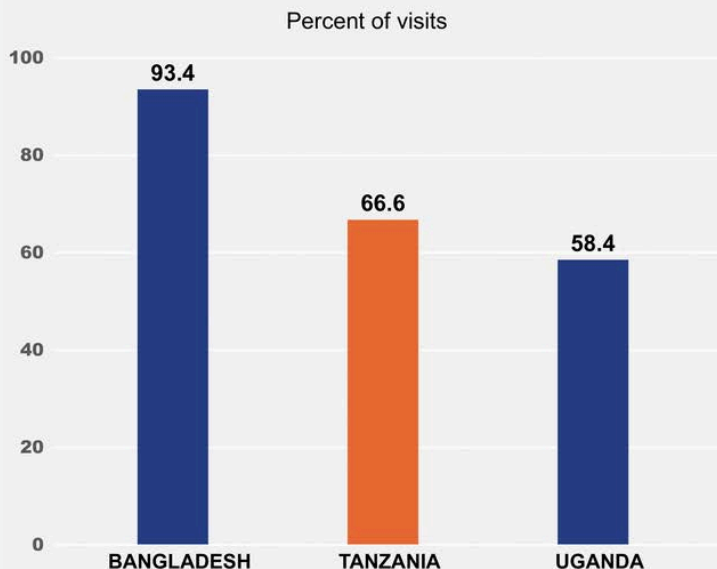
Price Transparency

Easy access to pricing information helps consumers make informed decisions and is key to a well-functioning mobile money market. Evidence from our second year of field work suggests a persisting significant variation between providers and individual agents in terms of the pricing information they disclose to customers.

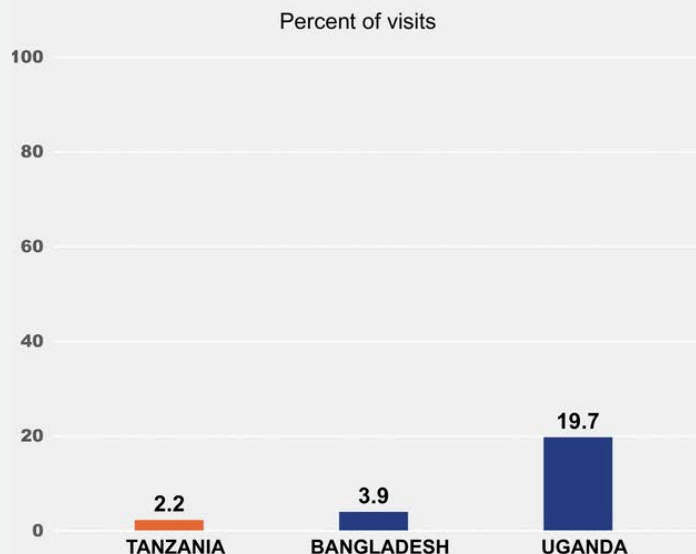
Online availability of listed prices:

- ✓ Price lists were displayed at agent locations 67 percent of visits, a higher rate than in Uganda but below that in Bangladesh
- ✗ Agents rarely informed customers about the fee: just about 2 percent of times, less often than in Uganda and Bangladesh

PRICE LIST DISPLAYED IN TANZANIA



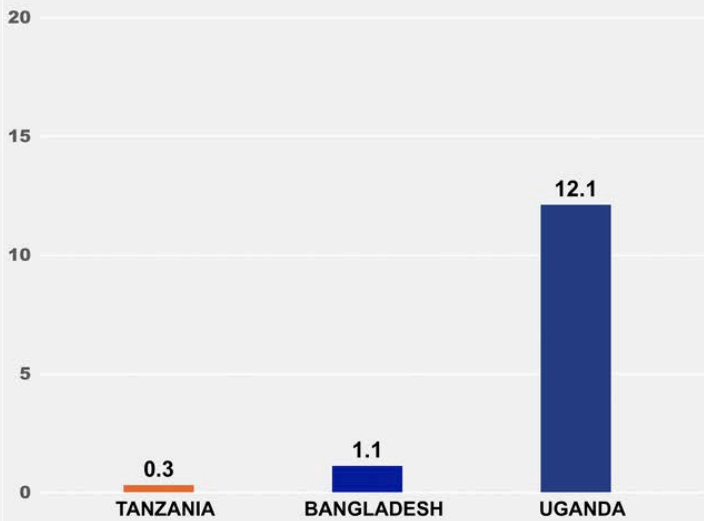
VERBAL DISCLOSURE OF PRICE IN TANZANIA



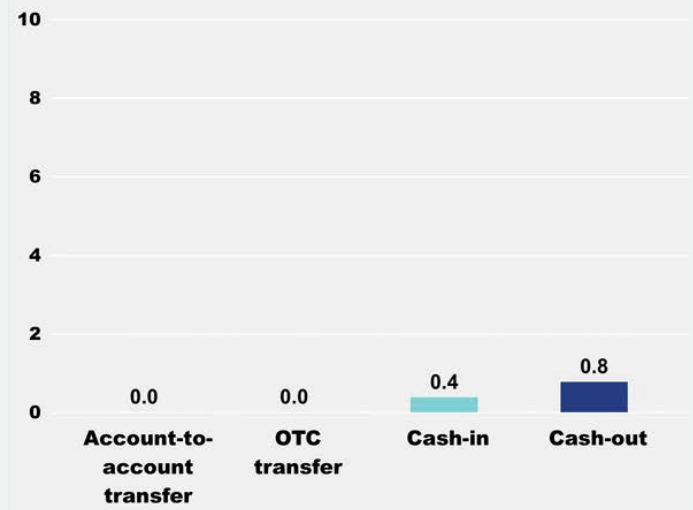
Overcharging

- Fieldwork data found that 0.3 percent of transactions in Tanzania resulted in overcharging by the agent, the lowest rate across all countries
- Of the transactions that were overcharged, most were cash-out transactions

OVERCHARGING BY TRANSACTION TYPE IN TANZANIA
Percent of transactions



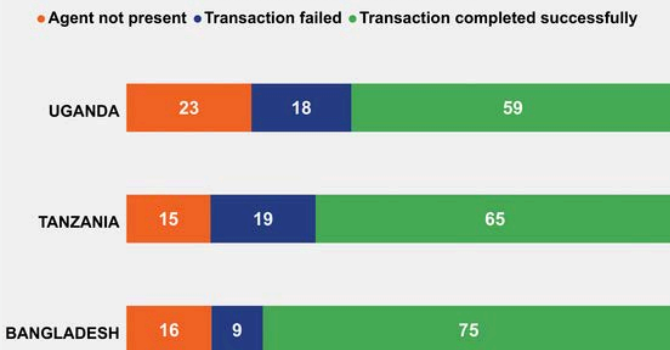
OVERCHARGING RATE IN TANZANIA
Percent of transactions



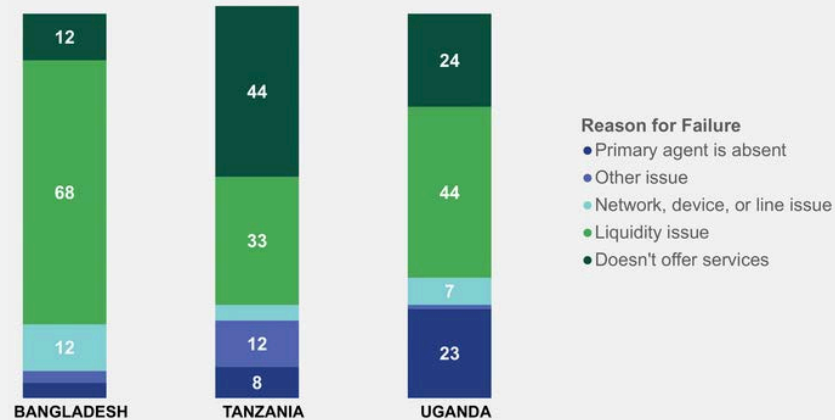
Reliability

- Local consumers with knowledge of the market found agents present in 85 percent of attempted visits, a higher rate than in Uganda
- Overall, 19 percent of transactions failed despite an agent being present - similar to Uganda, but considerably higher than in Bangladesh. Failure of the agent to serve the customer's preferred provider and to complete off-network transactions was the most common reason why a transaction could not be completed, followed by liquidity constraints.

SUCCESS RATE
Percent of attempted transactions

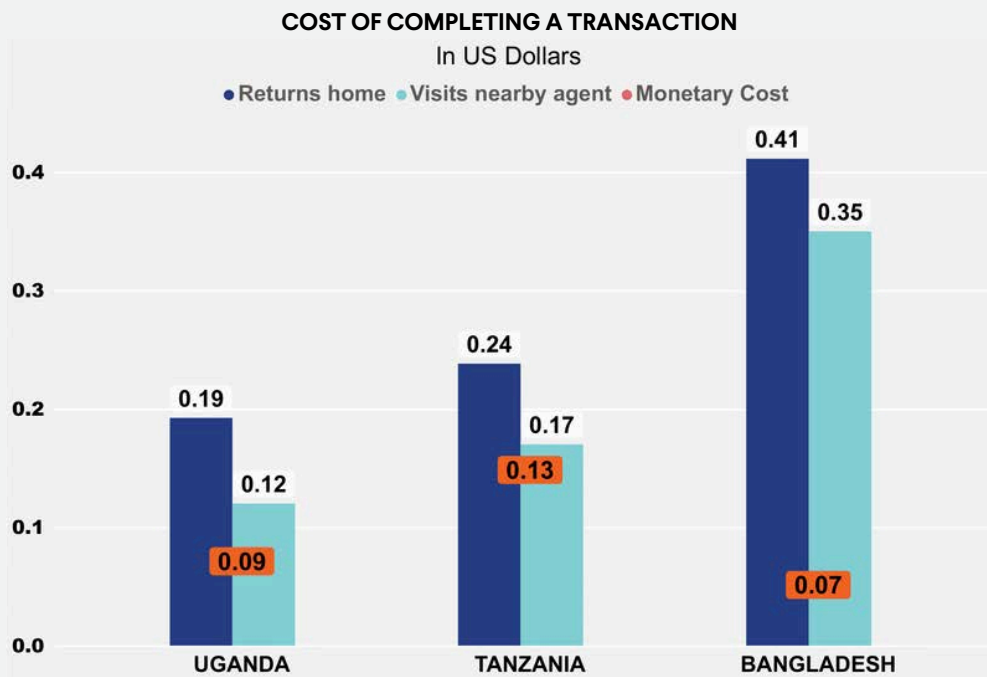


REASON WHY TRANSACTION FAILED
Percent of Failed Transactions



Time cost

- Fieldwork suggests that consumers in Tanzania spend an average of between 10 to 21 minutes to complete a successful transaction (depending on whether customers are assumed to visit another agent when a transaction fails, or go home and re-attempt at the same agent at another occasion). Using local wage rates to convert this time cost to monetary terms suggests the time cost is significantly higher than the monetary cost.



	Uganda	Tanzania	Bangladesh
Time cost			
Average time cost			
Returns home	26 minutes	21 minutes	24 minutes
Visits nearby agent	8 minutes	10 minutes	13 minutes
Average time Cost (USD)*			
Returns home	\$0.19	\$0.24	\$0.41
Visits nearby agent	\$0.12	\$0.17	\$0.35
Average monetary cost	\$0.09	\$0.13	\$0.07

* Time cost converted to monetary terms using average low skill wage rates