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Measuring the True Cost of Digital Financial Services

IN TANZANIA



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 Services (DFS) transactions or the ease of finding provider's official fees. A study by Innovations for Poverty Action (IPA) in Uganda, Tanzania, and Bangladesh focused on three main areas: price transparency, monetary costs, and reliability.

This brief provides an overview of findings focused on Tanzania.

Methodology

DESK REVIEW



Desk review of prices

Thorough review of listed transaction prices
(carried out in 2022, quarters 3-4)

16

countries across
Africa, Asia, and Latin America

33

major mobile money providers with
a combined **share of at least 80%**

We conducted customer care inquiries where providers did not display pricing information. In addition, IPA assessed a set of indicators on regulatory policies in terms of interoperability, pricing caps, pricing transparency, redress, and taxation.

Three main steps for data collection:



Collect price lists from website



Determine if taxes are explicitly included
in provider fees



Review to determine the applicable tax
rate where they are not included

Methodology

FIELDWORK WITH AGENTS



Fieldwork with agents

Fieldwork was conducted to capture costs beyond official fees (carried out in 2022). We worked with enumerators and local consumers in Bangladesh, Tanzania, and Uganda, who visited agents in locations from major cities to small rural communities.

We followed three different methods:



Professional mystery shopping visits by trained enumerators

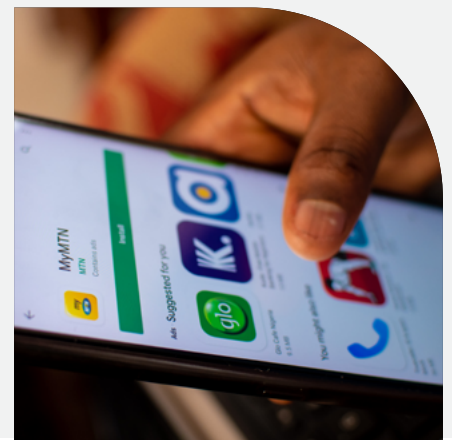


Intercept surveys with customers who completed a transaction



Mystery shopping visits by local customers

All three approaches were compared in terms of affordability, adaptability, reflection of real-world consumer decisions, data quality, and observer effects.



Methodology



WORK IN
TANZANIA



Work in Tanzania

Specifically for Tanzania, we looked at the following:

3 mobile money providers –
Vodacom, Tigo Pesa, and Airtel

41 locations for fieldwork – 10 urban locations in Dar es Salaam and Mwanza and 31 rural locations in Morogoro and Tanga with a total of 410 agents (200 in urban areas and 210 in rural areas)

TRANSACTION VALUES OF	
TZS 10,000	TZS 20,000
USD \$4.28	USD \$8.57

A total of

1,321 professional mystery shopping visits,

819 consumer intercept surveys, and

1,368 local consumer mystery shopping visits

Results

Price Transparency

Easy access to pricing information helps consumers make informed decisions and is key to a well-functioning mobile money market. Desk review and fieldwork evidence suggest significant variation between providers and individual agents in terms of the pricing information they disclose to customers.

Online availability of listed prices

- Two of the three providers (Airtel and Vodacom) include their prices and fees on their websites, along with a link on their homepage. Tigo did not have a price list posted on their website at the time of data collection.
- ✓ It took our researchers an average of one minute to find the listed fees online.

Public display of prices on location

- Agents publicly displayed price lists 82 percent of our visits (lower than in Bangladesh but higher than in Uganda).
- ✗ Only 4 percent of agents informed consumers of transaction fees, lowest of the three countries.

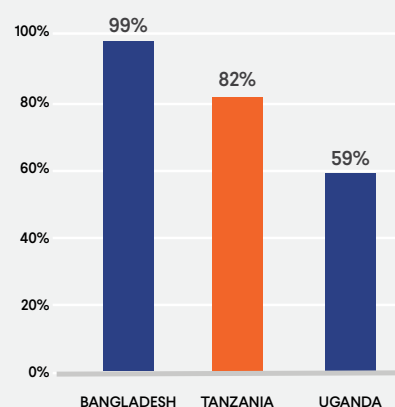
Disclosure of taxes

- ✓ Displayed prices are inclusive of taxes.
- ✗ Three types of taxes are applied to mobile money transactions – the mobile money levy, excise tax, and VAT – creating a complex taxation structure for consumers to interpret.

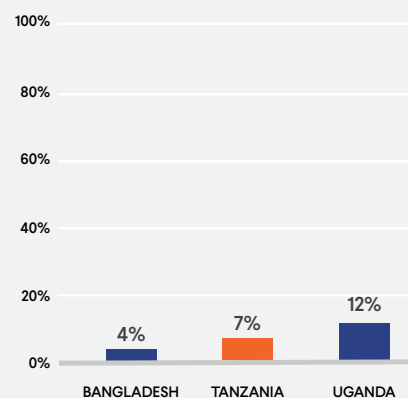
Fieldwork data suggests price lists are often posted at agent locations but agents rarely verbally disclose prices to customers.



PRICE LIST DISPLAYED
Percentage of agents



VERBAL DISCLOSURE OF PRICE
Percentage of agents



Monetary Costs

Tanzanian providers charge some of the highest fees for mobile money transactions, in particular the average rate of 8.6 percent for cashing-out. Tanzania's tax rate is higher than most countries which contributes to the overall high cost of mobile money transactions. Fieldwork data found that 7 percent of transactions in Tanzania resulted in overcharging.

Costs by transaction type

- ✔ As with most countries, Tanzania does not charge a fee for cash-in services.
- ✘ Highest fee by far for cash-out services.
- ✘ Second-highest fees for on- and off-network transfers.

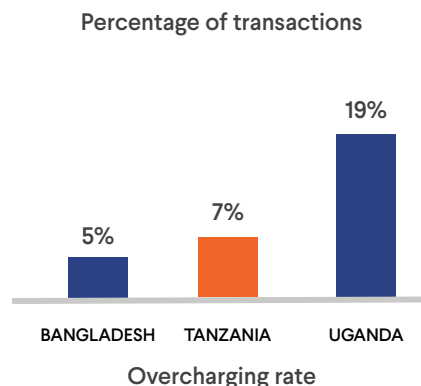
Fee structures

- ✘ Pricing structures tend to be regressive.

Overcharging

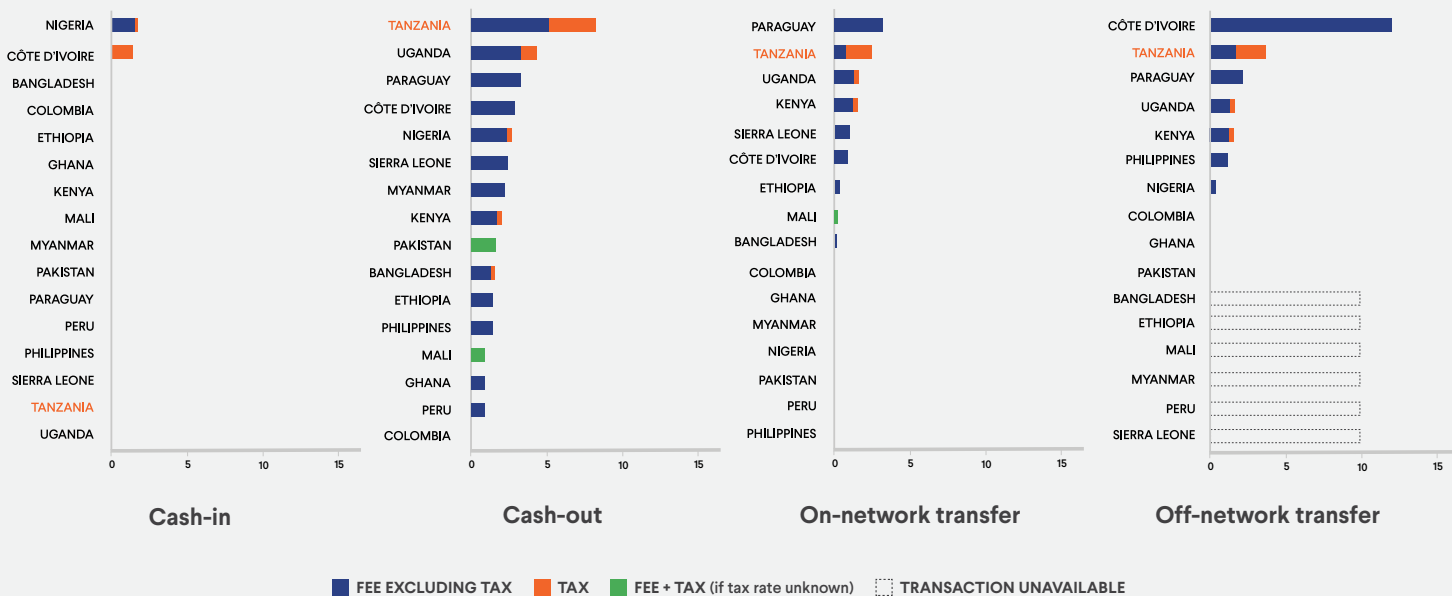
- 7 percent of transactions subject to overcharging, much lower than in Uganda and similar to Bangladesh.
- ✘ Cash-out services are the most common overcharged transaction.

Fieldwork results show Tanzania's overcharging rate is lower than Uganda's but higher than in Bangladesh.



Note: Averages reported across consumer surveys and professional mystery shopping visits.

Official mobile money fees by country



Reliability

The opportunity cost of time is a significant non-monetary cost consumers face when making mobile money transactions. Fieldwork data suggests that only two thirds of attempted mobile money transactions with agents in Tanzania are successful, and that the opportunity cost of time spent attempting transactions is much larger than the direct monetary costs consumers face.

Presence of agents

- ✗ Agents are present at their location 76 percent of the time, lower than Uganda and Bangladesh.

Transaction completion

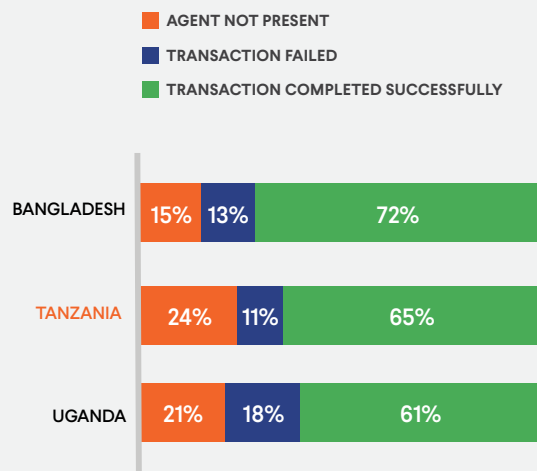
- ✓ Only 11 percent of attempted transactions result in failure with the agent present, a lower rate than Bangladesh and Uganda.
- Liquidity constraints are a common issue causing transactions to fail, particularly for urban agents.
- Tanzanian consumers require 31 minutes on average to complete one successful transaction, lower than Uganda and Bangladesh but nearly double the direct monetary cost when converted to monetary terms.

Fieldwork data suggests Tanzanian consumers require an average of 31 minutes to complete one successful transaction when accounting for travel time and failed transactions. When converted to monetary terms, the opportunity cost of time is nearly double the direct monetary cost of completing transactions.

	BANGLADESH	TANZANIA	UGANDA
Average time cost	40 minutes	31 minutes	42 minutes
Average time cost (USD)*	\$0.69	\$0.34	\$0.31
Average monetary cost (USD)	\$0.07	\$0.19	\$0.11

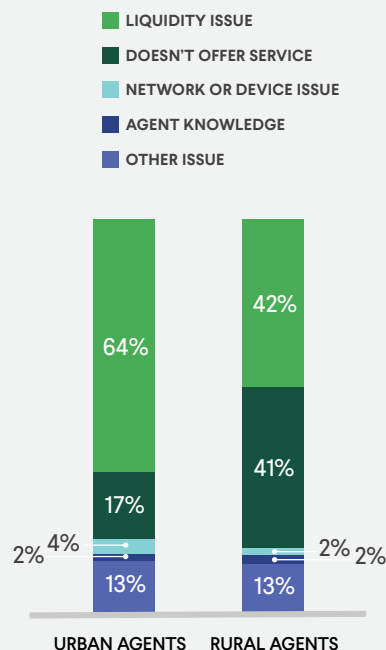
* Time cost converted to monetary terms using average low skill wage rates.

One third of attempted transactions in our Tanzania fieldwork were unsuccessful either because the agent was not present or the transaction failed.



Note: Data from mystery shopping visits only.

Liquidity constraints are the leading cause of failed transactions reported by agents, particularly in urban locations.



Note: Tanzania data only. Average across all methods.

Selected Descriptive Statistics

	URBAN	RURAL	MALE AGENTS	FEMALE AGENTS	OVERALL
Agent Characteristics					
Percent female	38.46**	25.50**			32.39
Percent dedicated (no business besides providing agent services)	41.33**	33.04**	36.28	33.98	35.57
Percent exclusive (only serve one provider)	12.00***	30.47***	26.05**	15.53**	24.85
Mean customers per hour	2.08	1.88	2.17***	1.38***	1.95
Male customers	1.22	1.30	1.41***	0.84***	1.24
Female customers	0.66	0.78	0.76***	0.54***	0.70
Mean number of other agents within 200m	25.68***	18.33***	12.46	12.83	20.56
Presence rate	72.96***	46.83***	Unavailable	Unavailable	64.55
Success rate (conditional on presence)	89.44***	82.55***	87.30	87.86	87.50
Mean security score (1-10)	8.30	8.10	8.19	8.31	8.25
Mean privacy score (1-10)	7.73	7.50	7.49***	7.85***	7.64

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. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$



	URBAN	RURAL	MALE AGENTS	FEMALE AGENTS	OVERALL
Customer characteristics					
Percent female	36.81***	25.08***			32.82
Percent who saved money using mobile money in last 12 months	51.09***	42.02***	51.49***	40.88***	48.00
Mean number of interactions with agent in last 90 days (incl. business and personal)	9.42*	12.65*	10.69	10.18	10.52
In the past 90 days, percent who made any...					
- Cash-in at agent	85.51**	74.27**	81.02**	75.00**	79.05
- Cash-out at agent	81.01***	88.60***	82.84	85.14	83.59
- Over-the-counter transfer at agent	33.11	36.81	35.97	31.10	34.37
- Any account-to-account transfer with agent assistance	66.39	70.03	70.63***	61.49***	67.63
- On-network account-to-account transfer without agent	77.48	73.94	76.90	75.00	76.27
- Off-network account-to-account transfer without agent	57.48	51.79	58.42**	49.66**	55.54
Percent who used mobile money for merchant payments at least some of the time in last 12 months	66.72***	45.28***	61.39*	55.4*	59.42
Percent who experienced a significant challenge with a mobile money agent in the last 90 days	19.33*	25.08*	24.75***	14.19***	21.29
Percent with outstanding debt on mobile money account	10.46	9.27	10.15	9.86	10.06

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 male columns. * p < 0.10, ** p < 0.05, *** p < 0.01

	URBAN	RURAL	MALE AGENTS	FEMALE AGENTS	OVERALL
Transaction characteristics					
Median transaction amount (local currency)	10,000	10,000	10,000	12,000	10,000
Transaction types					
Cash-in	47.16**	38.35**	47.35**	38.43**	44.39
Cash-out	27.02**	34.21**	25.97***	35.94***	29.28
Over-the-counter transfer (any type)	22.38	25.56	24.38	21.35	21.35
Account-to-account transfer (agent assisted)	3.27*	1.51*	1.94*	4.27*	2.72
Other	0.17	0.38	0.36	0.00	0.24
Total	100%	100%	100%	100%	100%

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 male columns. * p < 0.10, ** p < 0.05, *** p < 0.01