



Measuring the True Cost of Digital Financial Services

IN BANGLADESH



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 Bangladesh.

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

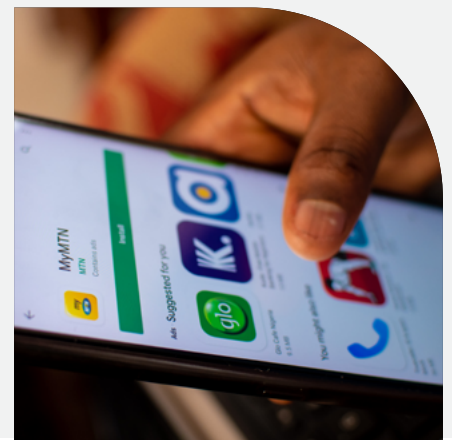


Intercept surveys with customers who completed a transaction



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
BANGLADESH



Work in Bangladesh

Specifically for Bangladesh, we looked at the following:

3

mobile money providers –
bKash, Rocket, and Nagad

79

79 locations for fieldwork – 19 urban locations
in Dhaka and 60 rural locations in Chittagong
with a total of 417 agents (207 in urban areas
and 210 in rural areas)

TRANSACTION VALUES OF	
BDT 750	BDT 1,500
USD \$7.27	\$14.54

A total of

1,579

professional mystery shopping visits,

669

consumer intercept surveys, and

768

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

- ✓ All three providers include their prices and fees on their websites. bKash included a link to prices on their homepage at the time of data collection, while Rocket and Nagad did not.
- It took our researchers an average of nine minutes to find the listed fees online.
- ✗ Lack of information on off-network transfer fees through Binimoy in price schedule.

Public display of prices on location

- ✓ Agents publicly displayed price lists 99 percent of our visits (higher than both Uganda and Tanzania).
- ✗ Only 4 percent of agents informed consumers of transaction fees, lowest of the three countries.

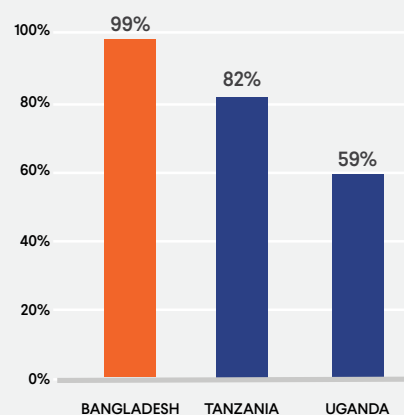
Disclosure of taxes

- ✓ Displayed prices are inclusive of taxes.
- ✓ Only one type of tax is applied to mobile money transactions – the VAT – creating a simple taxation structure for customers to interpret.

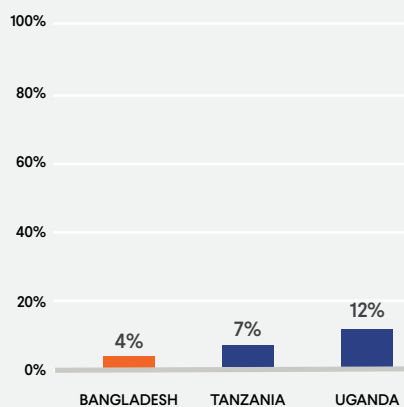
Fieldwork data suggests price lists are often posted at agent locations but agents rarely verbally disclose prices to customers.



PRICE LIST DISPLAYED
Percentage of agents



VERBAL DISCLOSURE OF PRICE
Percentage of agents



Monetary Costs

Bangladesh providers charge relatively low fees for mobile money transactions, with an average rate of 1.6 percent for cash-out services. Fieldwork data found that 5 percent of transactions in Bangladesh resulted in overcharging.

Costs by transaction type

- ✓ Cash-out and on-network transfers are relatively inexpensive. Bangladesh's cash-out fees are the 7th lowest of 16 countries in our study, while on-network fees are the 8th lowest.
- ✗ At the time of data collection, off-network transfers were not available. However, some providers began offering off-network transfers starting in late 2022. One provider's listed fees exceed price caps set by Bangladesh Bank.

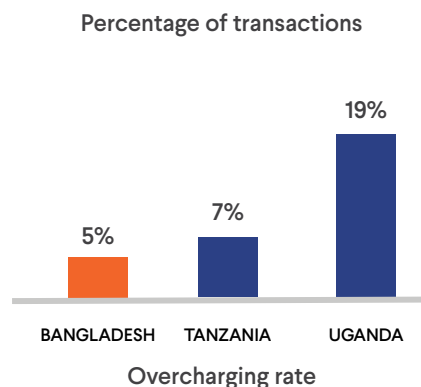
Fee structures

- Pricing structures are primarily percentage based, so much less regressive than many other countries.

Overcharging

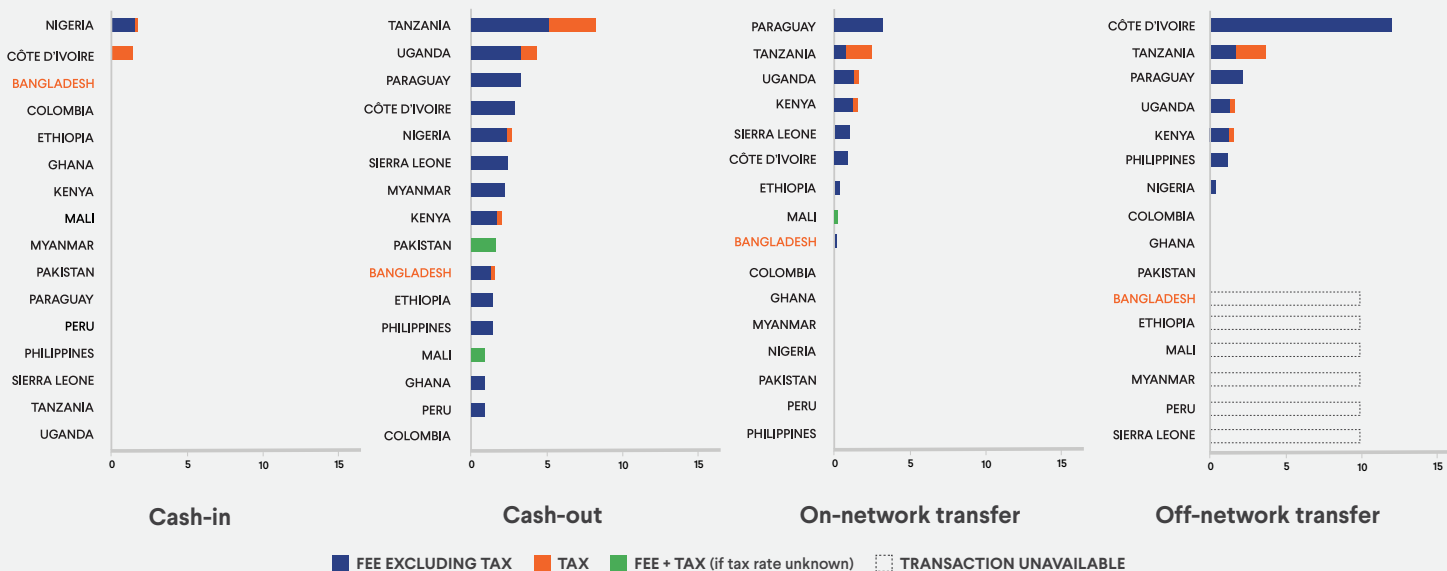
- ✓ 5 percent of transactions subject to overcharging, much lower than in Uganda and slightly lower than in Tanzania.
- ✗ Cash-out services are the most commonly overcharged transaction type.

Fieldwork results show Bangladesh's overcharging rate is lower than both Uganda and Tanzania.



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

Official mobile money fees by country



Note: Fees are an average of the leading mobile money providers in each country as of December 31, 2022, weighted by mobile money market share at a standard reference value equal to approximately 15x the World Bank estimate of mean income of the bottom 40 percent of the population. For Bangladesh, this reference value is BDT 1,400.

Reliability

The opportunity cost of time is a significant non-monetary cost consumers face when making mobile money transactions. Fieldwork data suggests that only three quarters of attempted mobile money transactions with agents in Bangladesh 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 85 percent of the time, higher than Uganda and Tanzania.

Transaction completion

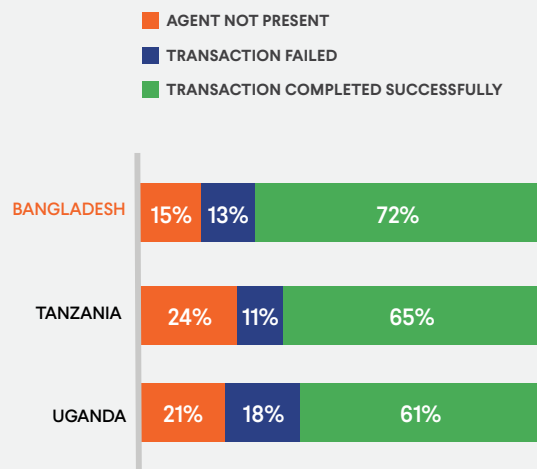
- 13 percent of attempted transactions result in failure with the agent present, a lower rate than Uganda but higher than Tanzania.
- Liquidity constraints are a common issue causing transactions to fail, second to service limitations.
- ✗ Bangladeshi consumers require 40 minutes on average to complete one successful transaction, higher than Tanzania and similar to Uganda. When converted to monetary terms, this represents nearly ten times the direct monetary cost of these transactions.

Fieldwork data suggests Bangladeshi consumers require an average of 40 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 ten times the direct monetary cost of completing transactions.

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

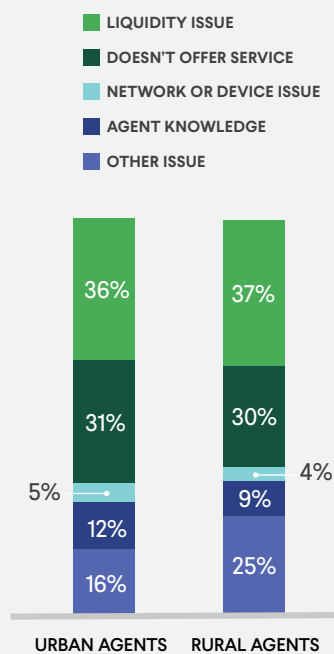
* Time cost converted to monetary terms using average low skill wage rates.

More than a quarter of attempted transactions in our Bangladesh field work were unsuccessful either because the agent was not present or the transaction failed.



Note: Data from mystery shopping visits only.

Liquidity constraints are a common issue causing transactions to fail, second to service limitations.



Note: Bangladesh data only. Average across all methods.

Selected Descriptive Statistics

	URBAN	RURAL	OVERALL
Agent Characteristics			
Percent female	0.05	0.16	0.09
Percent dedicated (no business besides providing agent services)	7.74**	2.67**	5.25
Percent exclusive (only serve one provider)	19.33	14.94	17.11
Mean customers per hour	2.68***	1.67***	2.08
Male customers	1.92***	1.26***	1.54
Female customers	0.76***	0.40***	0.55
Mean number of other agents within 200m	9.84	5.04	7.42
Presence rate	81.66***	75.39***	79.51
Success rate (conditional on presence)	88.91	87.87	88.52
Mean security score (1-10)	7.92***	8.20***	8.03
Mean privacy score (1-10)	8.06**	7.85**	7.94

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	29.84	25.86			27.73
Percent who saved money using mobile money in last 12 months	5.69	4.24	4.74	5.41	4.93
Mean number of interactions with agent in last 90 days (incl. business and personal)	6.84**	10.26**	9.99***	5.49***	8.84
In the past 90 days, percent who made any...					
- Cash-in at agent	55.13	55.96	58.52***	47.88***	55.57
- Cash-out at agent	48.52***	79.80***	65.19	64.86	65.10
- Over-the-counter transfer at agent	10.02*	6.67*	8.15	8.49	8.24
- Any account-to-account transfer with agent assistance	21.87**	28.69**	24.44	28.19	25.48
- On-network account-to-account transfer without agent	78.13***	87.68***	85.48***	77.22***	83.19
- Off-network account-to-account transfer without agent	1.14***	10.91***	6.67	5.41	6.32
Percent who used mobile money for merchant payments at least some of the time in last 12 months	49.86***	27.87***	38.63**	32.1**	36.97
Percent who experienced a significant challenge with a mobile money agent in the last 90 days	2.01	0.81	1.59*	0.47*	1.30
Percent with outstanding debt on mobile money account	0**	1.15**	1.30**	0**	0.95

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)	1000	1000	1000	1000	1000
Transaction types					
Cash-in	39.42	33.50	38.27	31.03	36.28
Cash-out	40.58	51.66	45.97	47.78	46.47
Over-the-counter transfer (any type)	3.48	3.33	2.81	4.93	3.40
Account-to-account transfer (agent assisted)	13.33	8.70	9.38	14.78	10.87
Other	3.19	2.81	3.57	1.48	2.99
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