



# Agent Network Accelerator Survey: Senegal Country Report 2015

May 18, 2016

In partnership with:



## Project Description

The [Helix Institute](#) of Digital Finance, founded in November 2013 as a partnership between [MicroSave](#), the [Bill & Melinda Gates Foundation](#), the [International Finance Corporation](#) (IFC), and the [UN Capital Development Fund](#) (UNCDF), provides world-class training and cutting-edge data for digital financial service providers.

The Agent Network Assessment (ANA) for Senegal is funded by the UNCDF [Mobile Money for the Poor \(MM4P\)](#) programme, in partnership with [The MasterCard Foundation](#).

Research findings are disseminated through the *Helix* Institute of Digital Finance and the MM4P programme in Senegal.



[www.helix-institute.com](http://www.helix-institute.com)

# Mobile Money For The Poor Programme

Mobile Money for the Poor is an international programme launched in Senegal in 2015 by the UNCDF in partnership with the MasterCard Foundation.

MM4P supports the development of digital financial services in Asia and Africa. Through this programme, UNCDF aims to demonstrate that the correct mix of financial, technical as well as institutional support can facilitate the development of digital financial services.

MM4P's objective is to make digital financial services accessible to low-income people and thereby to contribute to their financial inclusion as outlined in the Sustainable Development Goals (SDGs).

For more information on the programme: [Mobile Money for the Poor](#).



# Acknowledgement

Contributing Authors:  
**Mélissa Rousset and Irene Wagaki**

With Special Thanks To:  
**Vera Bersudskaya**

*Helix* is grateful for the support received from Research Solutions Africa (RSA) and the Senegalese service providers in conducting this study. *Helix* also appreciates UNCDF’s logistical support.

*The views expressed in this publication are those of the author(s) and do not necessarily represent those of the United Nations, including UNCDF, or their Member States.*

# Focus Of Research

The research focuses on operational determinants of success in agent network management, specifically:



# A Short History Of Digital Financial Services (DFS) In Senegal

The Central Bank of West African States – **BCEAO** – issues regulation on e-money ([Instructions 01/SP](#)).



**Joni Joni**, a third party provider, launches Over the Counter (OTC) money transfer services in 2013. It then introduces its own mobile wallet, **Vitifé** in 2015.



**Money Express** launches **Nafa Express** in 2014, offering person to person transfers, airtime top-up, and bill payment services through a mobile app.



The **BCEAO** releases updates on e-money regulation ([Instruction n°008-05-2015](#)).

**Société Générale de Banque au Sénégal** (SGBS) introduces **Manko** in 2013 to extend its financial services to the mass market.



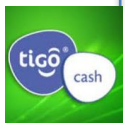
**CSI-Wari**, Senegal's first third party provider, launches person to person and bill payment services.



**Ferlo**, Senegal's first technology provider to obtain a non-bank electronic money issuer licence, launches electronic payment services offered through cards.







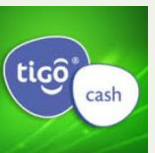


**Orange** introduces its mobile wallet in partnership with **BICIS**, offering person to person transfers, airtime top-up, bill payment, merchant payment, and bank-to-wallet services.



**Tigo** obtains a non-bank electronic money issuer licence in 2013 and introduces **Tigo Cash** initially through OTC and then through its own mobile wallet in late 2014.

**MicroCred** rolls out its own agency network, **Baobab**, in late 2014.

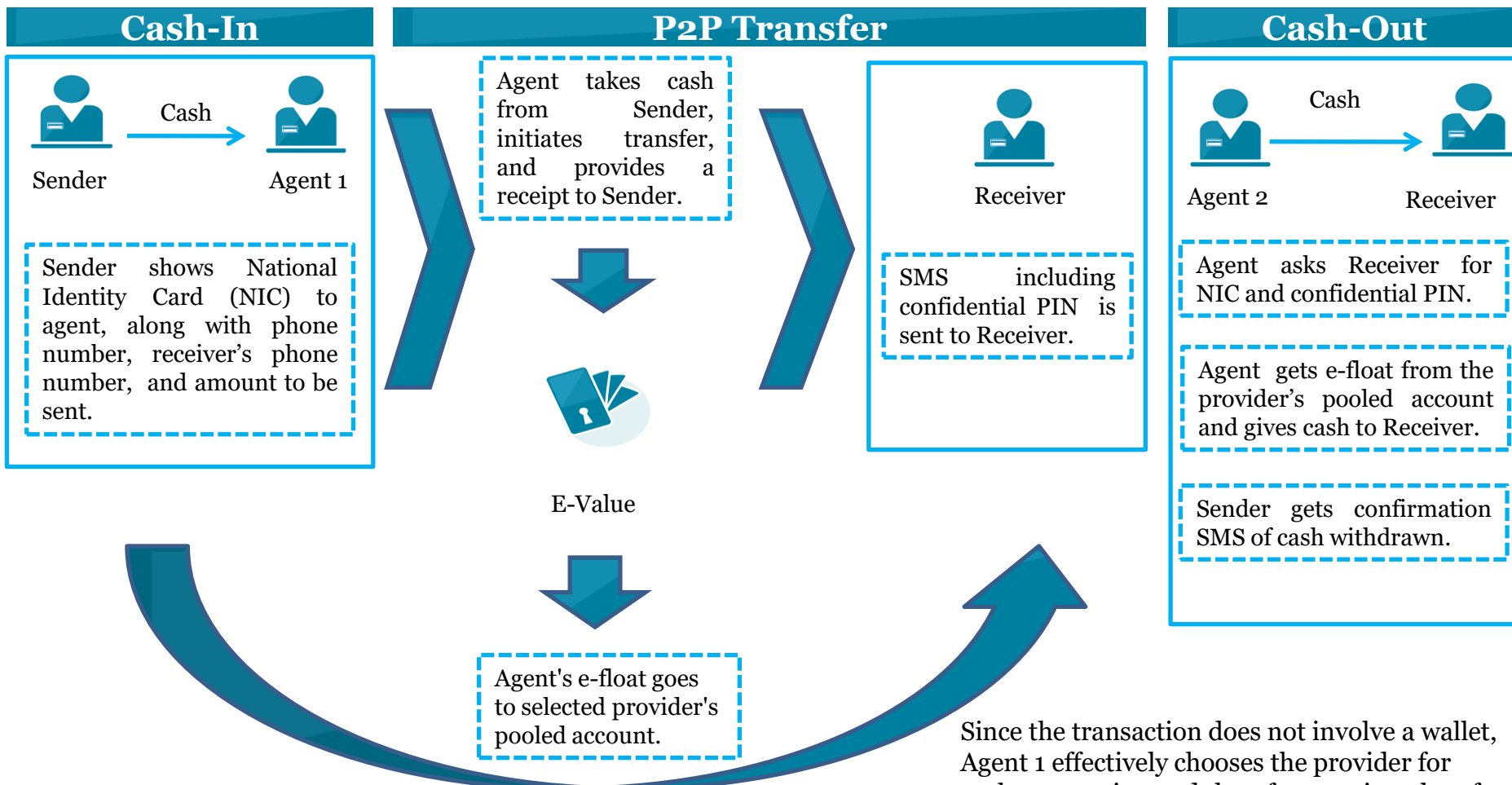
# Senegal Enjoys A Great Diversity Of Players And Business Models

Industry of Core Business	Providers*	Services Offered	Transaction Methodology
<b>Financial Institution</b>	 	<ul style="list-style-type: none"> <li>Account registration</li> <li>Deposit, withdrawal &amp; money transfer services from one Manko account to another</li> </ul>	<ul style="list-style-type: none"> <li>OTC** through Manko agencies</li> </ul>
		<ul style="list-style-type: none"> <li>Deposit, withdrawal &amp; money transfer services from one MicroCred account to another</li> </ul>	<ul style="list-style-type: none"> <li>OTC** through Baobab agents</li> </ul>
<b>Mobile Network Operator</b>		<ul style="list-style-type: none"> <li>Account registration</li> <li>Basic product offerings*</li> <li>International remittance</li> <li>Merchant payments</li> </ul>	<ul style="list-style-type: none"> <li>Wallet-based</li> <li>USSD-based and mobile app interface</li> <li>Bank-to-wallet</li> </ul>
		<ul style="list-style-type: none"> <li>Basic product offerings*</li> <li>Account registration</li> <li>Basic product offerings*</li> </ul>	<ul style="list-style-type: none"> <li>OTC**</li> <li>Wallet-based</li> <li>USSD-based interface and cardless services at ATMs</li> </ul>
<b>Third-Party Provider</b>		<ul style="list-style-type: none"> <li>Basic product offerings*</li> <li>International remittance</li> <li>Basic product offerings*</li> <li>Merchant payments</li> </ul>	<ul style="list-style-type: none"> <li>OTC**</li> <li>Mobile app, web and card-based interface</li> </ul>
		<ul style="list-style-type: none"> <li>Basic product offerings*</li> <li>International remittance</li> <li>Account registration</li> <li>Basic product offerings</li> <li>Merchant payments</li> </ul>	<ul style="list-style-type: none"> <li>OTC**</li> <li>Wallet-based</li> <li>Mobile (USSD, mobile app) and card-based interface</li> </ul>

\* Basic product offerings include person-to-person transfer, cash-in/cash-out, and basic payment services (utility payments, airtime top-up etc.).

\*\* Please see slide 8 for further details on the OTC transaction methodology in Senegal.

# The OTC Model



Since the transaction does not involve a wallet, Agent 1 effectively chooses the provider for each transaction and therefore carries a lot of power in the relationship with the provider, driving transactional commissions higher.



## Agent Network Overview

**The Senegalese digital finance market is fractured between four major players who tend to share agents, thus agents serve a median of three providers. There is widespread adoption of the OTC transaction methodology with money transfers as the anchor product. High revenues and low operating expenses make agents the most profitable among all ANA research countries. The Senegalese market is facing a watershed moment, as many providers are transitioning to wallet-based products. In this transition, providers will want to maintain agent profitability as well as support its customers—not all of whom may be ready.**

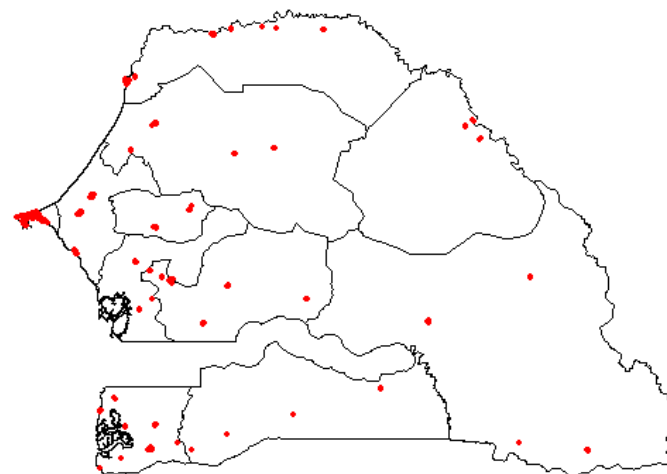
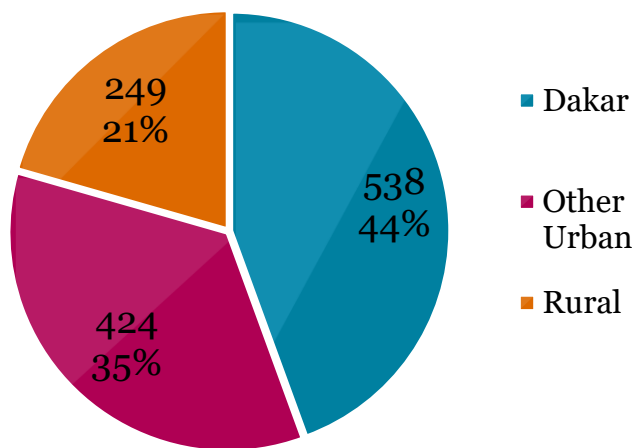
- ▶ Agents are optimistic about the business: the majority foresee themselves continuing as an agent in one year’s time, yet perceive service downtime as a major impediment to expanding their agency business.
- ▶ Although most providers have launched e-wallet services, few agents offer account registration or wallet-based cash-in and cash-out services.



# Network Structure

# Research Is Based On 1,211 Nationally Representative Agent Interviews\*

## Sample Distribution by Location\*\*



• Red dots represent the sample distribution of agents interviewed in November and December 2015 using a random route methodology.

## Sample Profile

Total Sample Size	Ownership Of DFS Business		Exclusivity***		Dedication***		Agent Age	
	Owner	Operator	Exclusive	Non-Exclusive	Dedicated	Non-Dedicated	15-24 Yrs.	>24 Yrs.
<b>1,211</b>	<b>219</b> 18%	<b>992</b> 82%	<b>408</b> 34%	<b>803</b> 66%	<b>291</b> 24%	<b>920</b> 76%	<b>196</b> 16%	<b>1,015</b> 84%

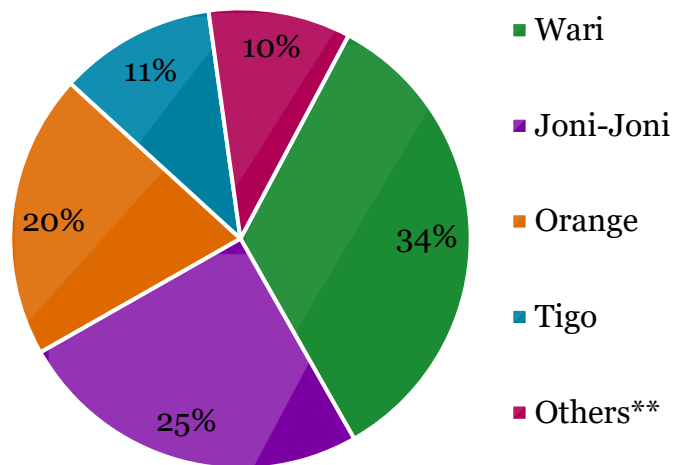
\*Only agents who conduct at least one transaction per month (active agents) were interviewed as part of the ANA survey. 7% of the agents encountered were dormant for at least one of the providers served.

\*\*Please see Appendix 1 for further detail.

\*\*\*Please see Appendix 2 for further detail.

# The Senegalese Market Is Competitive With One Frontrunner

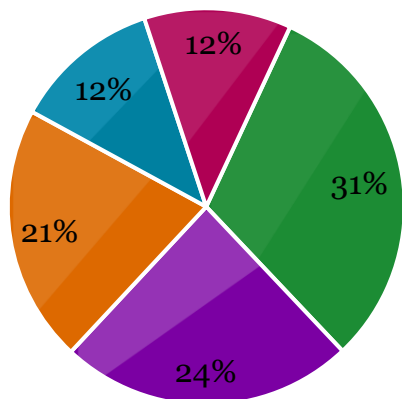
## Market Presence\*



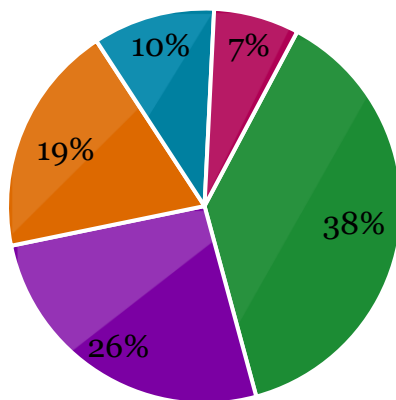
**The Senegalese market is fractured between four major players.** Wari is the market leader representing a little over a third of agents in the country (34%), followed by Joni-Joni (25%), Orange (20%) and Tigo (11%).

Since they were the first provider to expand outside Dakar, **Wari has the largest share of market presence in other urban and rural areas.**

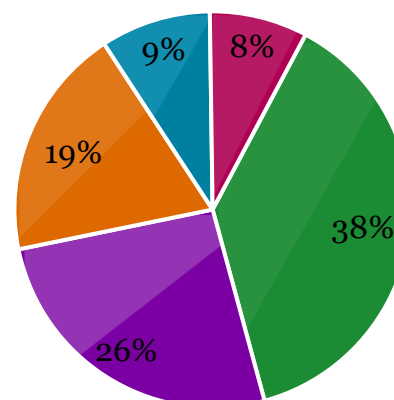
## Dakar



## Other Urban



## Rural



- Wari
- Joni-Joni
- Orange
- Tigo
- Others

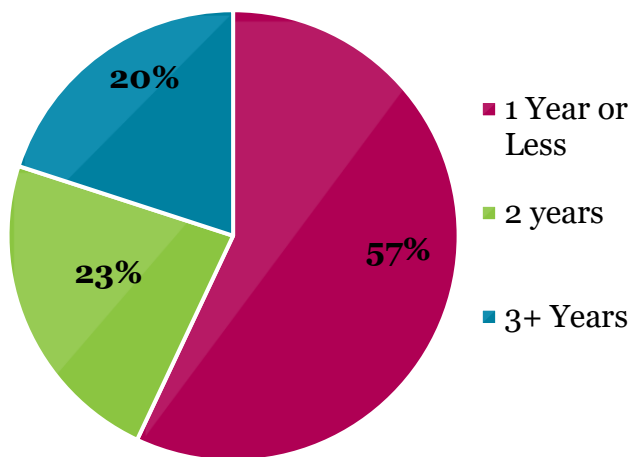
\*Agent market presence is defined as the proportion of cash-in/cash-out agents by provider. Numbers here are provided on a unique provider till basis, therefore if an agent serves three providers the agency is counted three times. If an agent has multiple tills for the same provider, on the other hand, they are counted once.

\*\*The 'Others' category includes Money Express (3%), ATPS (2%), Microcred (1%), PosteFinance (1%), and other providers (<1%).

# Network Operational Efficiency

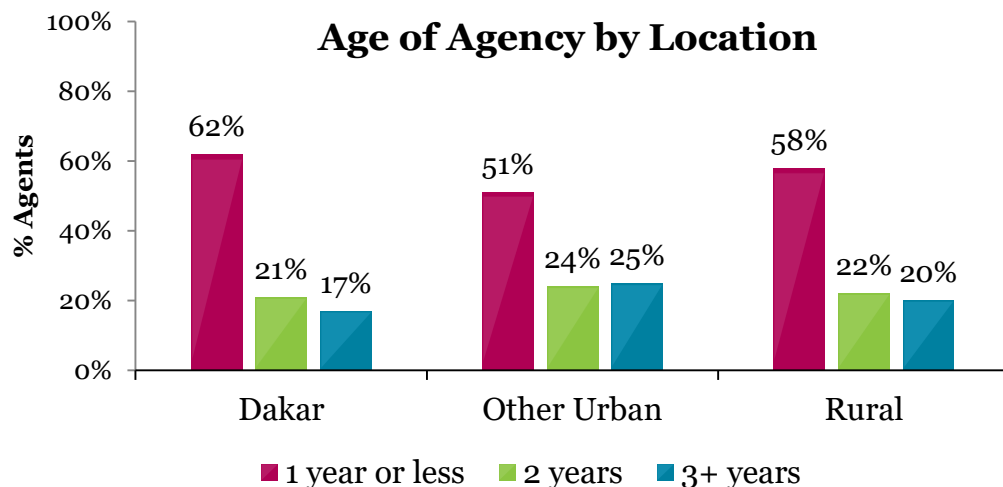
# Most Agents Have Been In Business For One Year Or Less

## Age of Agency



- More than half of the agents in Senegal are new, indicating **rapid growth and/or high churn rates**.
- Over time, **agents tend to become non-exclusive and non-dedicated**. This suggests that agents diversify their income streams by serving multiple providers and by opening up other businesses in parallel to their DFS business. **This puts less pressure on providers** to ensure that their agents are busy and profitable.
- Agencies are open for a median of 30 hours longer than banks per week, demonstrating that **they are accessible outside of banking hours**.

## Age of Agency by Location

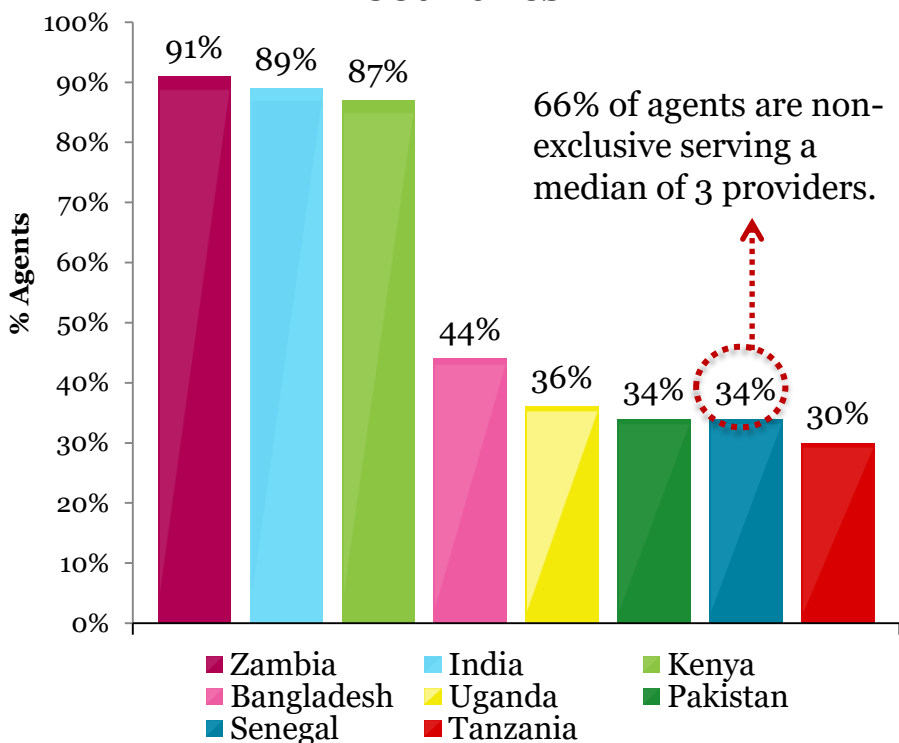


- The high concentration of new agents in Dakar could be indicative of **high churn rates and/or rapid growth**.
- In contrast, the relatively high concentration of new agents in rural areas is likely due to **most providers adopting a radial growth strategy** of focusing on urban centers first, and then expanding to rural areas.

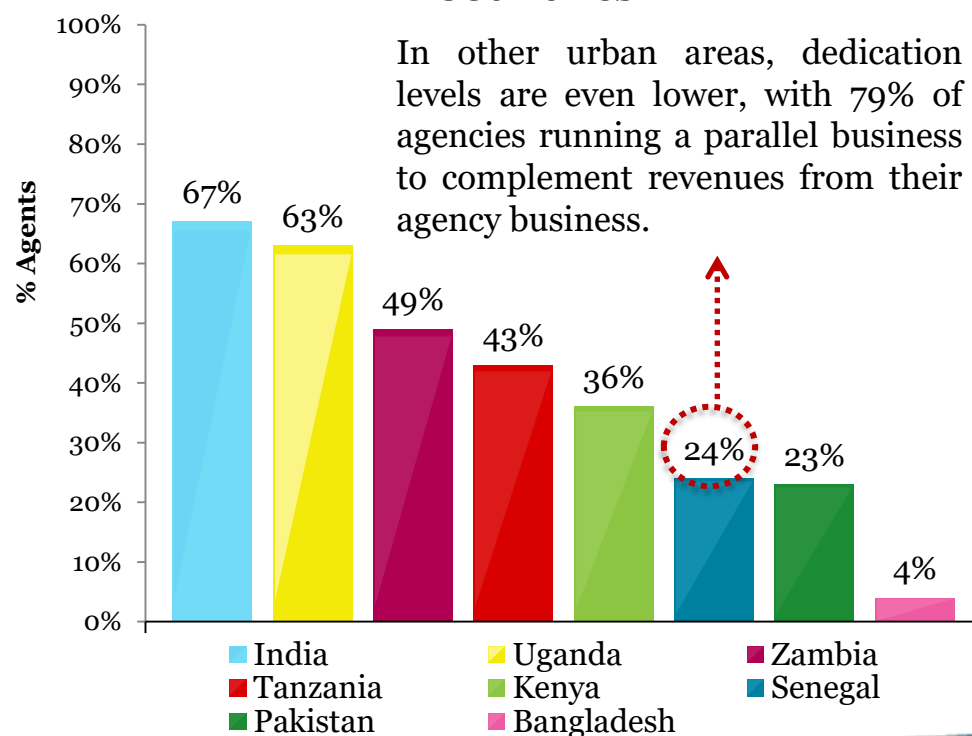
# Most Agents Are Non-Exclusive And Non-Dedicated

Senegal is on par with Pakistan with regards to exclusivity and dedication levels. **As Senegal is a non-exclusive OTC market, agents can influence their customers** and have the ability to select which provider they conduct transactions for. **This power dynamic puts providers under pressure to offer outstanding agent support and/or loyalty programmes in order to motivate agents to sell their services and lure new customers to their network.**

### Exclusivity: ANA Research Countries\*



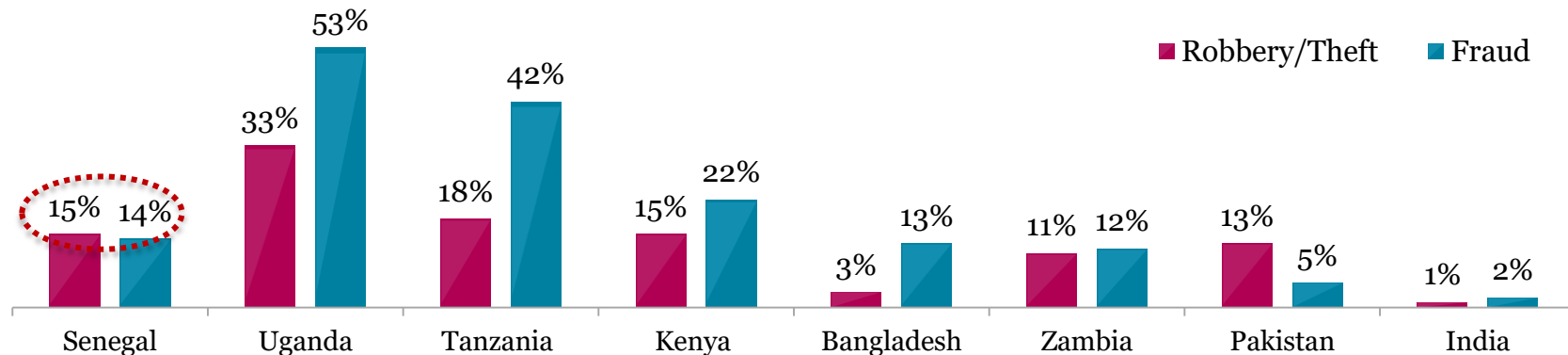
### Dedication: ANA Research Countries\*



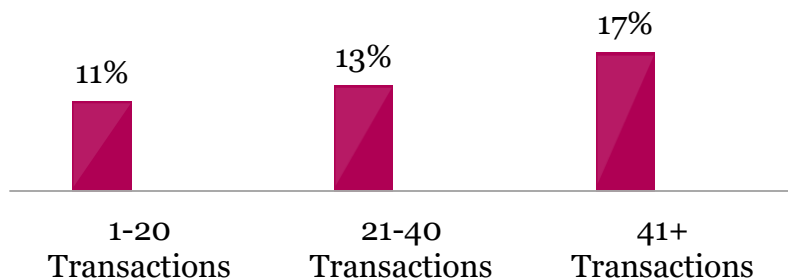
\*ANA surveys were conducted in 2013 in [Uganda](#), [Kenya](#) and [Tanzania](#); in 2014 in [Bangladesh](#), [Kenya](#), [Pakistan](#), and [India](#); and in 2015 in [Zambia](#), [Tanzania](#), [Uganda](#), and [Senegal](#). Country comparison graphs contain most recent data available.

# Crime And Fraud Are Less Prevalent Than In East Africa

**Agents Reporting Robbery/Theft and Fraud:  
ANA Research Countries\***



**Reported Robbery/Theft by Daily  
Transaction Volumes\*\***



▶ **The prevalence of crime and fraud in rural areas is lower** than in other urban areas (13% vs. 16% and 12% vs. 16%, respectively).

▶ **Agents who conduct more transactions are more likely to experience crime.**

▶ **Monitoring visits matter:** agents who receive regular support visits are less likely to have experienced robbery/theft and fraud within the past year (12% and 11%, respectively, vs. 16% for those who do not).

\*For surveys conducted in South Asia and Zambia, fraud and robbery were not measured within a specific time period. In East Africa and Senegal, agents reported these incidents within the last year.

\*\*Robbery/theft can include theft by people external to the agency business (armed robbery) and internal theft by staff.



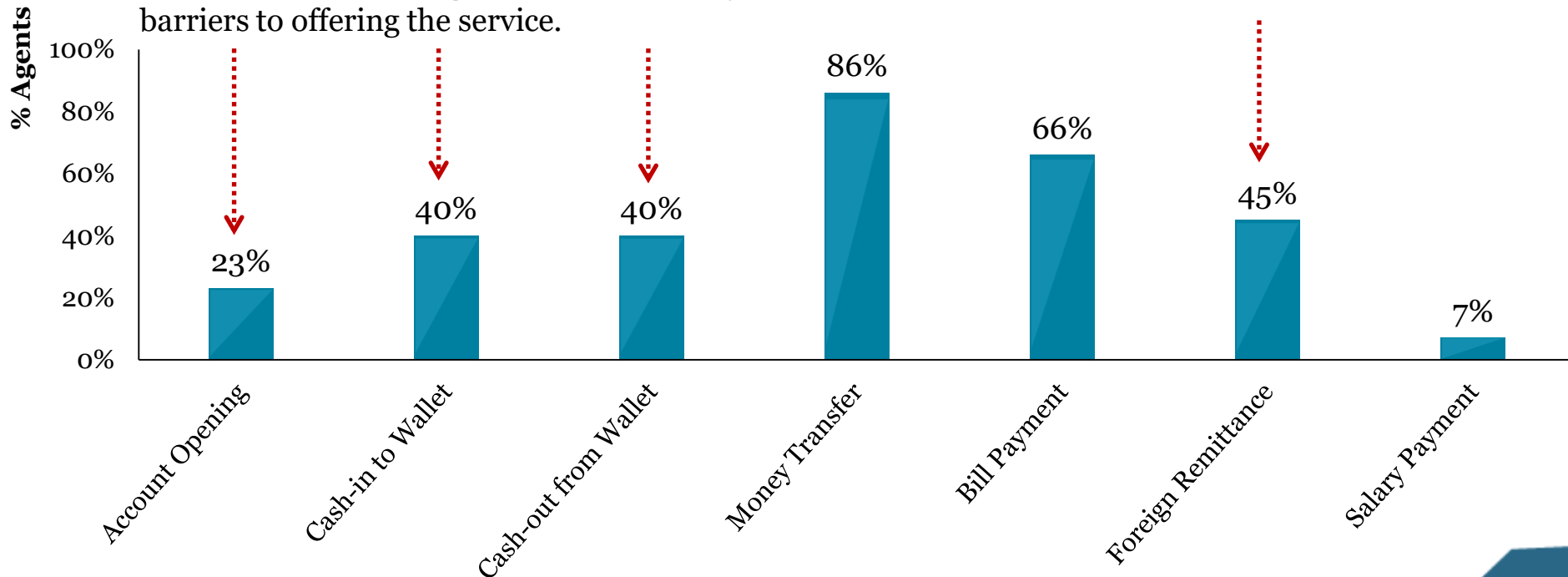
# Agent Viability

# Diversity In Products And Services Is Lacking In The Market

**In an OTC market that is characterised by one-time, cash-to-cash transactions, the roll-out of more sophisticated products and services can be challenging.**

Account opening and cash-in/cash-out (CICO) transactions are low compared to ANA research countries. While agents are willing to open accounts, they report **not having any knowledge of the service** and **potential customers not being aware of it** as major barriers to offering the service.

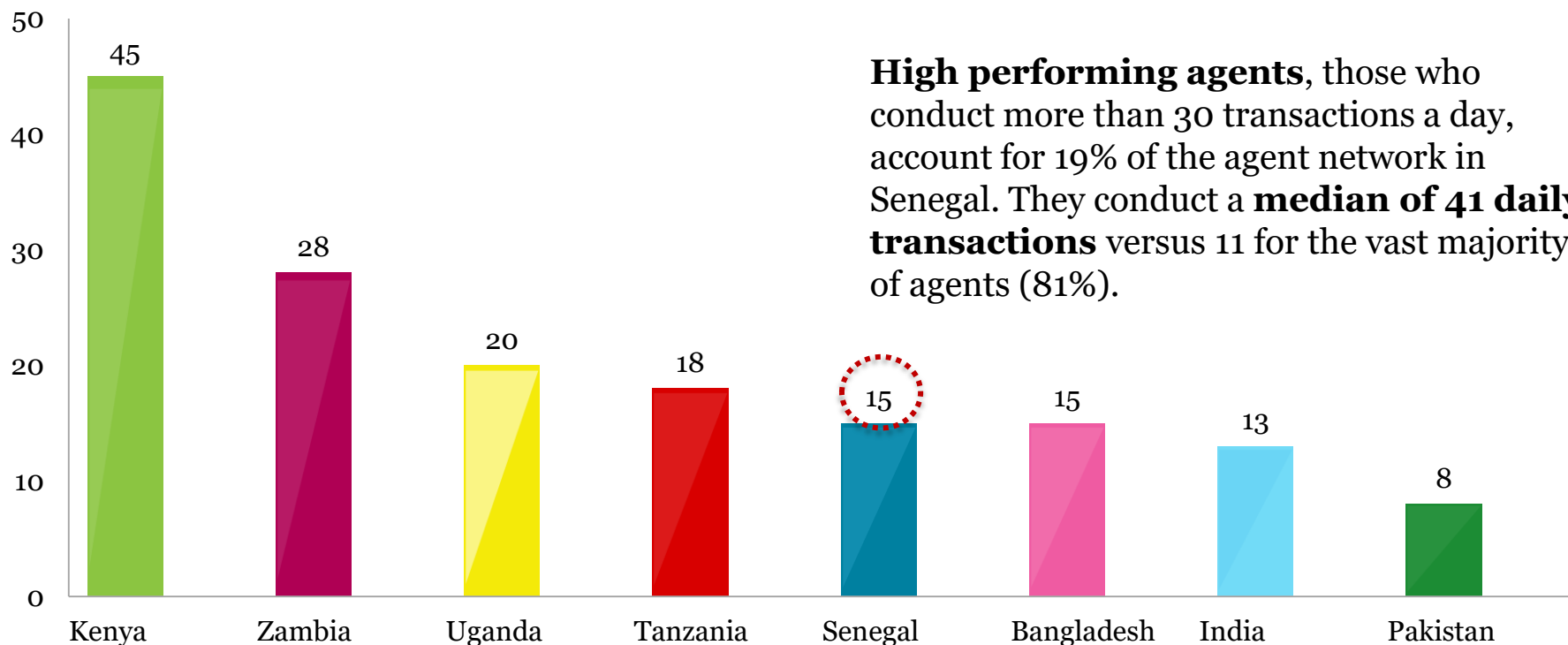
This is the highest proportion of agents offering foreign remittance among ANA research countries. Providers leverage their OTC or e-wallet platform to **target key intra-regional and ‘North-South’ remittance corridors.**



## Transaction Volumes Are High At The Agency Level

Senegal has the lowest median daily transactions (15) among African ANA research countries and is on par with Bangladesh. High rates of non-exclusivity however, translate to higher transactions at the agency level: agents conduct **a median of 35 daily transactions**.\*

**Median Daily Transactions: ANA Research Countries\*\***



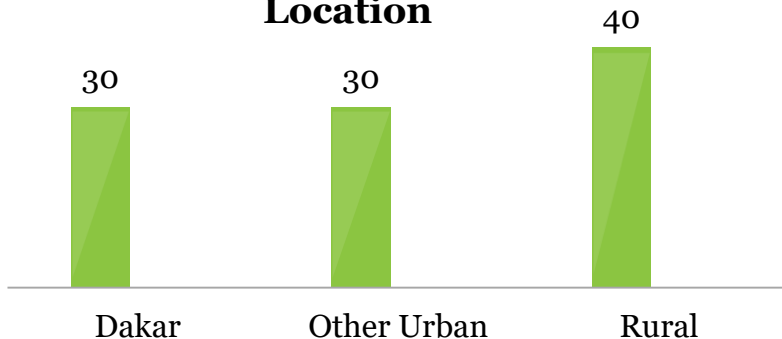
**High performing agents**, those who conduct more than 30 transactions a day, account for 19% of the agent network in Senegal. They conduct a **median of 41 daily transactions** versus 11 for the vast majority of agents (81%).

\*Agents in Senegal conduct a higher median volume of transactions at the outlet level than in Tanzania's 15 (30) and Uganda's 15 (30).

\*\*Numbers represent transactions per day at the provider level, not overall volumes for the agency. Methodology for calculating provider-level transactions has changed, please see Appendix 2 for further detail.

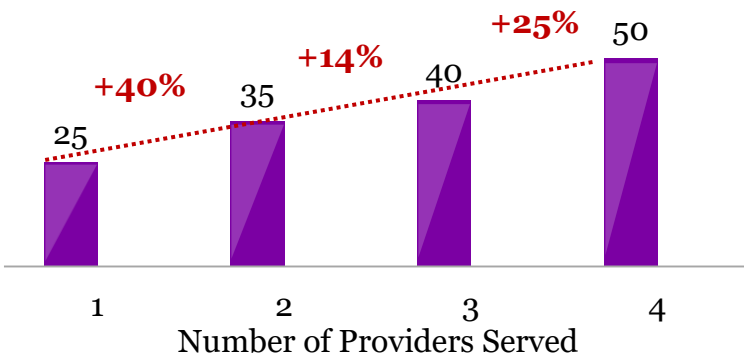
# Rural, Experienced And Non-Exclusive Agents Conduct More Transactions\*

**Median Daily Transactions by Location**

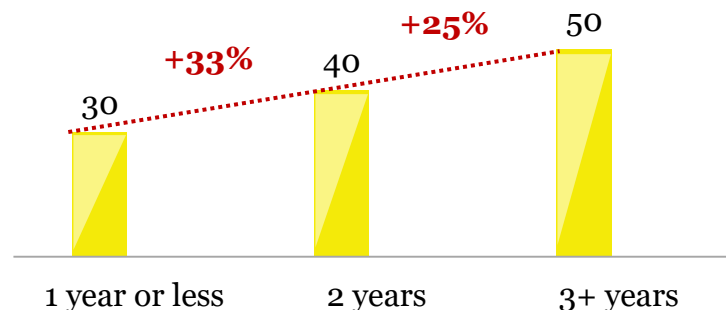


**At the agency level, rural agents conduct more transactions** (median of 40) **than at the country level** (median of 35). This could be explained by the higher concentration of agents in urban areas, creating more competition among agents.

**Median Daily Transactions by Exclusivity**



**Transactions by Age of Agency**



**The more providers agents serve, the more transactions they conduct** at the agency level.

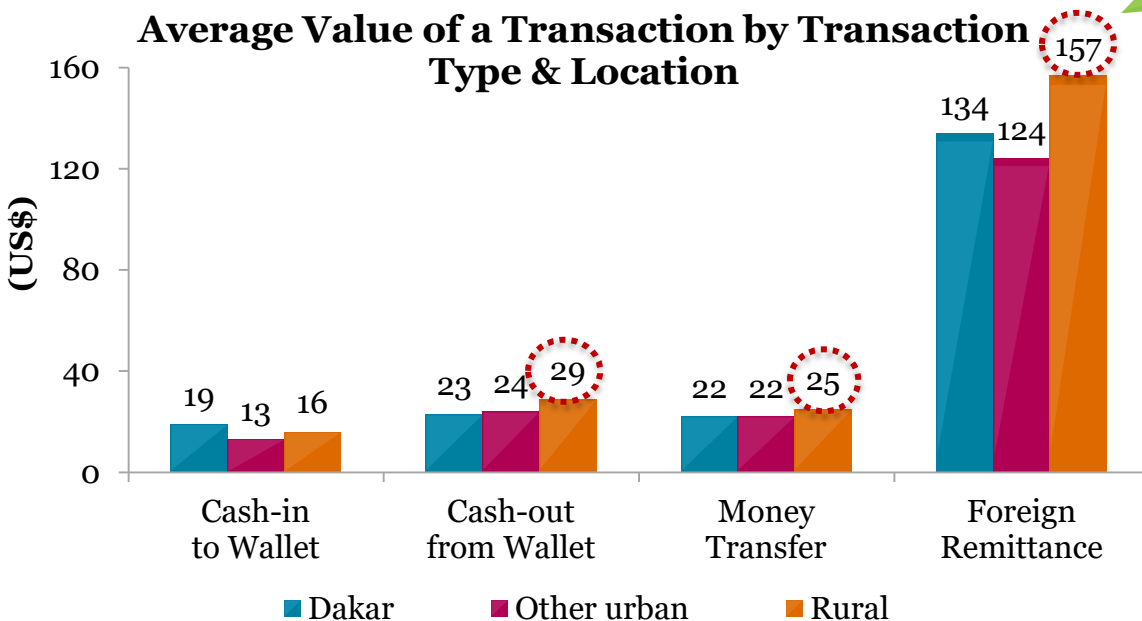
**The more experienced agents are, the more transactions they conduct.** Providers may consider designing agent loyalty programs to retain agents.

\*Because the Senegalese market is highly non-exclusive, transactions at the agency level provide a more accurate picture of an agent's business. All figures shown on this slide are the reported total daily transactions for all providers combined (i.e. agency level).

# Daily Transactions Are Driven By Money Transfers

Transaction Type	Average Volume Of Transactions	Average Value Of A Transaction (US\$)
Money Transfer/Day	15	\$23
Cash-in to Wallet/Day	10	\$17
Cash-out from Wallet/ Day	6	\$24
Bill Payment/Month	9	\$44
Account Opening/Month	13	

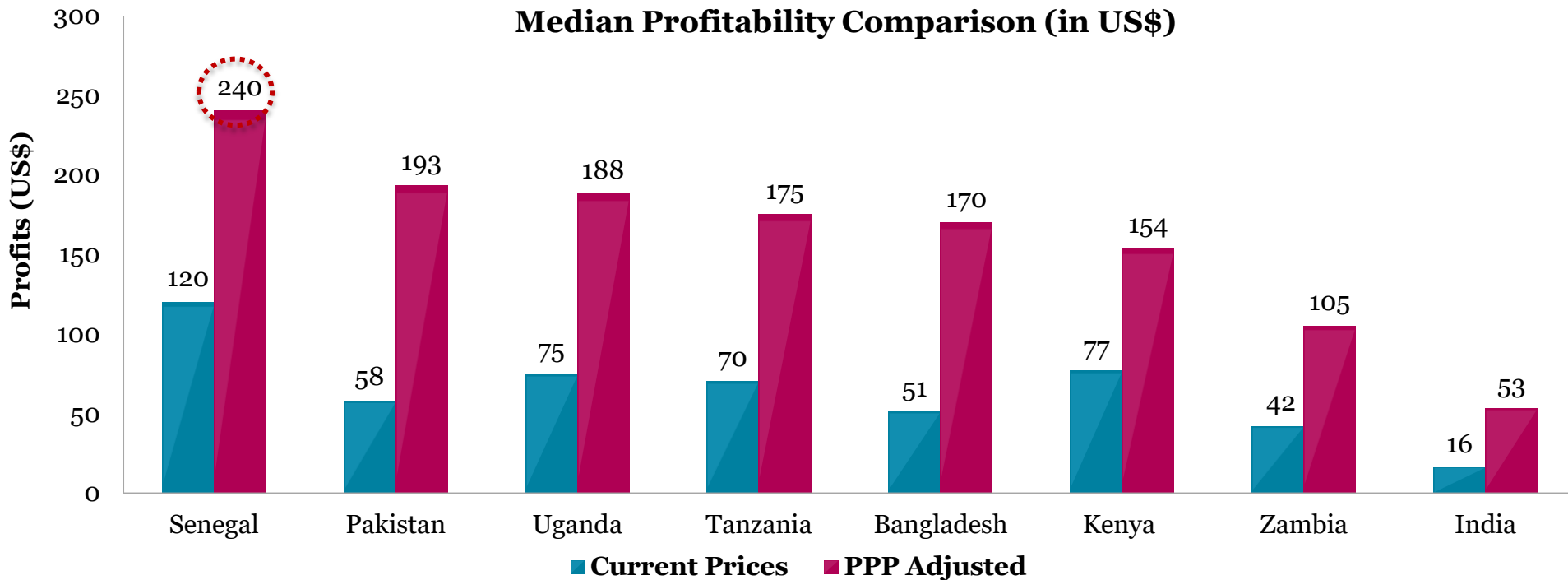
Overall, the average transaction values are lower for cash-in than other transactions. In fact, over two-thirds of agents report average cash-in values of \$8 or less. This suggests that **Senegal is largely a cash-to-cash services market**, even for e-wallet users.



Rural agents conduct higher average transaction values per cash-out (\$29 vs. \$23 in Dakar), money transfer (\$25 vs. \$22 in urban centres) and foreign remittance (\$157 vs. \$134 in Dakar). **This indicates uptake of the “send money home” use case**, whereby customers transfer money between the urban-rural and the North-South corridors.

# Agent Profitability\* Is Highest Among ANA Research Countries

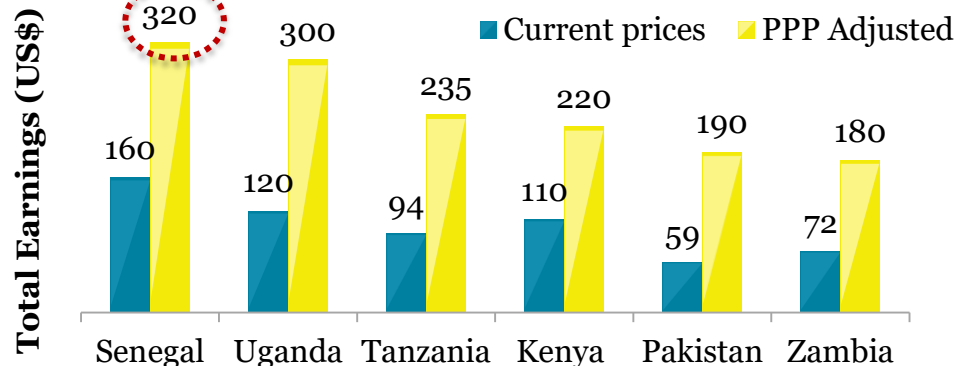
**The non-exclusive agent network model adopted in Senegal is paying off:** while exclusive agents make a median monthly profit of US\$92, non-exclusive agents make a median monthly profit of US\$146. Although Senegalese agents enjoy the highest profits among all ANA countries, only 39% is somewhat or very satisfied with the profit they receive from providers. This indicates that **Senegalese providers may be subject to a commission war** to win agents' loyalty, which could be increasing agents' appetite for higher commissions.



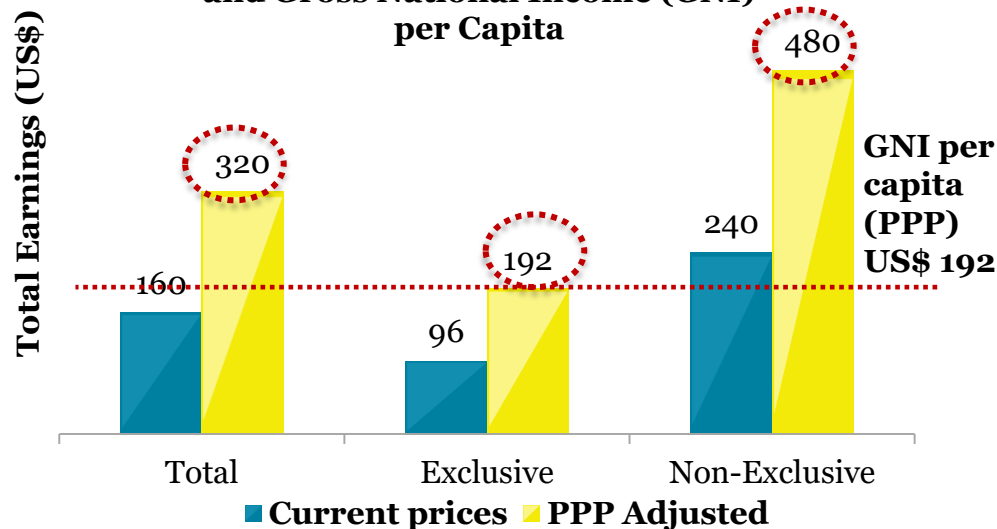
\*Profitability as shown in the graph is calculated as total earnings minus operating expenses for all countries. In the case of India, the fixed monthly component given to agents has also been considered in this calculation. This is different from other ANA research countries where commissions earned makes up the total earnings of the agent. For all countries, profits are reported for overall agent business.

# Agents Enjoy High Earnings\*

**Total Median Monthly Earnings (US\$)**



**Total Median Monthly Earnings and Gross National Income (GNI) per Capita**



The high revenues could be attributed to the high volume of transactions at the agency level and **high levels of commission typical of competitive OTC markets.**

**Median operating expenses are low** (US\$32, PPP adjusted) compared to African ANA countries. This could be **due to high levels of non-dedication** (76%) where fixed and recurrent expenses are shared between the agency business and the parallel business.

Median monthly revenues earned by Senegalese agents are higher than GNI per capita, indicating that **mobile money is a sustainable business, even as a standalone business.**

\*Our methodology for calculating earnings and operating expenses has changed, please see Appendix 2 for further detail.

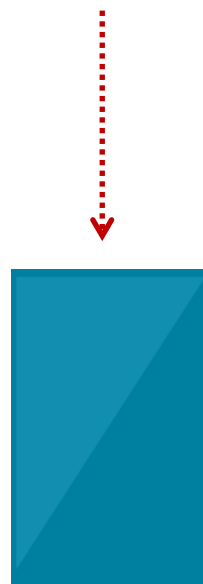
# Top Three Barriers To Conducting More Transactions\*

Unreliable service affects customer experience and can significantly undermine trust, adoption and usage of DFS services. **Providers may want to invest in technology to meet the capacity of their customers' demands.**



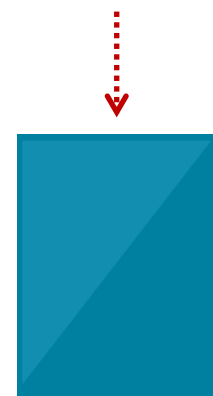
Service downtime

Agents feel the pressure of competition in a market where the majority of agents offer the same products, **causing some agents to become redundant and/or not compete at the product level.**



Competition from other agents

While rebalancing for float is effective (only 6% of all daily transactions are denied due to unavailability of cash or e-float), this points to **opportunities for providers to offer liquidity on credit.**



Lack of resources to buy enough float

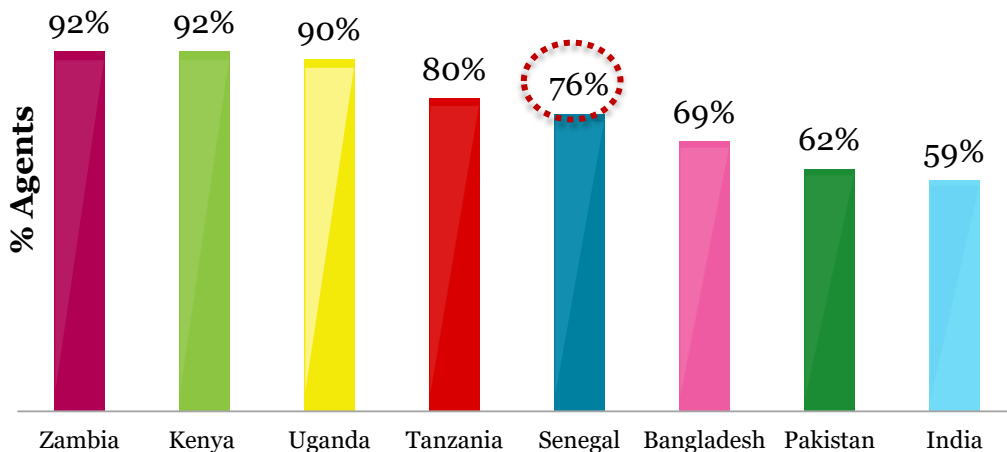
\*Agents were asked to select top three barriers to conducting more transactions from a list of 11 options, including the option to pick “Other”. The above figures are a weighted average of the barriers ranked by agents, where taller bars mean a higher relative ranking.



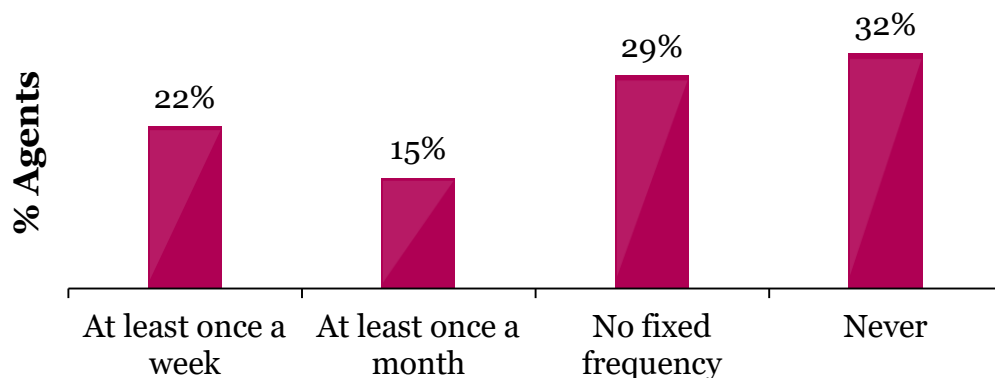
# Quality of service

# Agent Support Systems Could Be More Effective

## Trained Agents: ANA Research Countries



## Frequency Of Support Visits\*



- A lower proportion of agents (76%) receive initial training compared to East African countries. However, quite surprisingly, **a higher proportion of rural agents receive this training than their counterparts in urban areas.**
- Only 36% of agents receive refresher training in Senegal compared to 73% in Tanzania, 47% in Zambia, 45% in Uganda.
- Only 37% of agents receive regular support visits. This is lower than in other African countries (59% in Kenya, 66% in Zambia).
- Agents who receive regular support visits are more liquid:** they deny a lower proportion of their transactions due to lack of cash or e-float.

\*1.4% who answered 'Don't know' or 'Other' are not shown in the graph, therefore bars do not add up to 100%.

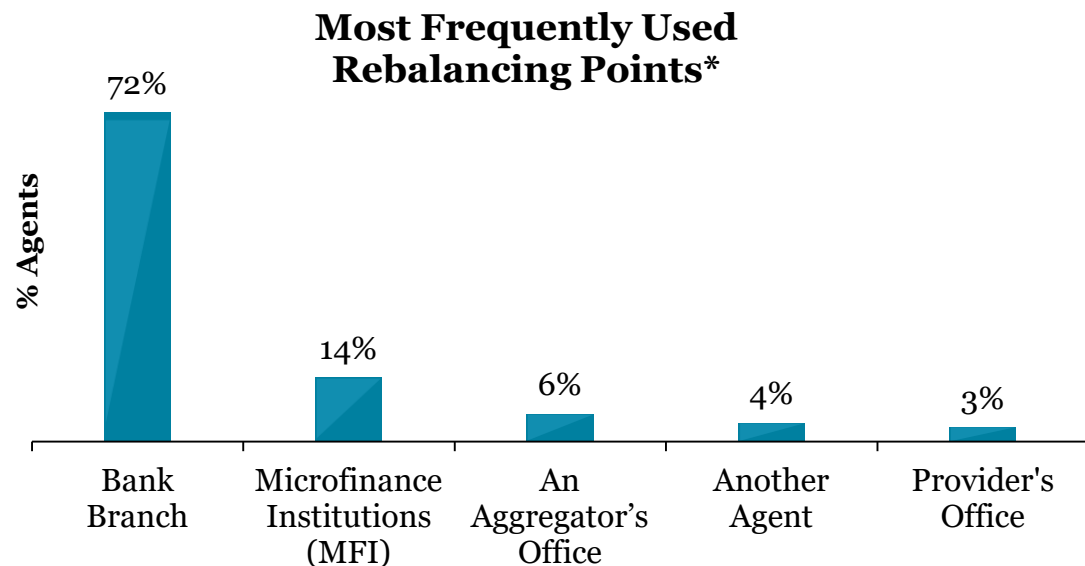
# Most Agents Use Banks To Rebalance

Characteristics Of Most Frequently Used Rebalancing Option	
Median travel time taken for rebalancing (in mins)	10
Median frequency of CI per month (getting e-float)	4
Median frequency of CO per month (getting cash)	2
Proportion of all transactions denied due to lack of e-float/cash	6%
Median cost of rebalancing	\$0.16

62% of agents travel to rebalance, the vast majority of whom (72%) use bank branches as a rebalancing point.

28% of agents do not travel and only have float delivered to them. In Dakar and other urban areas, agents rely on support visits to get liquidity while rural agents have it delivered by surrounding retailers, family or friends.

The low median frequency of cash-outs suggests that non-dedicated agents (76%) may use cash from their parallel business to meet customer demand.



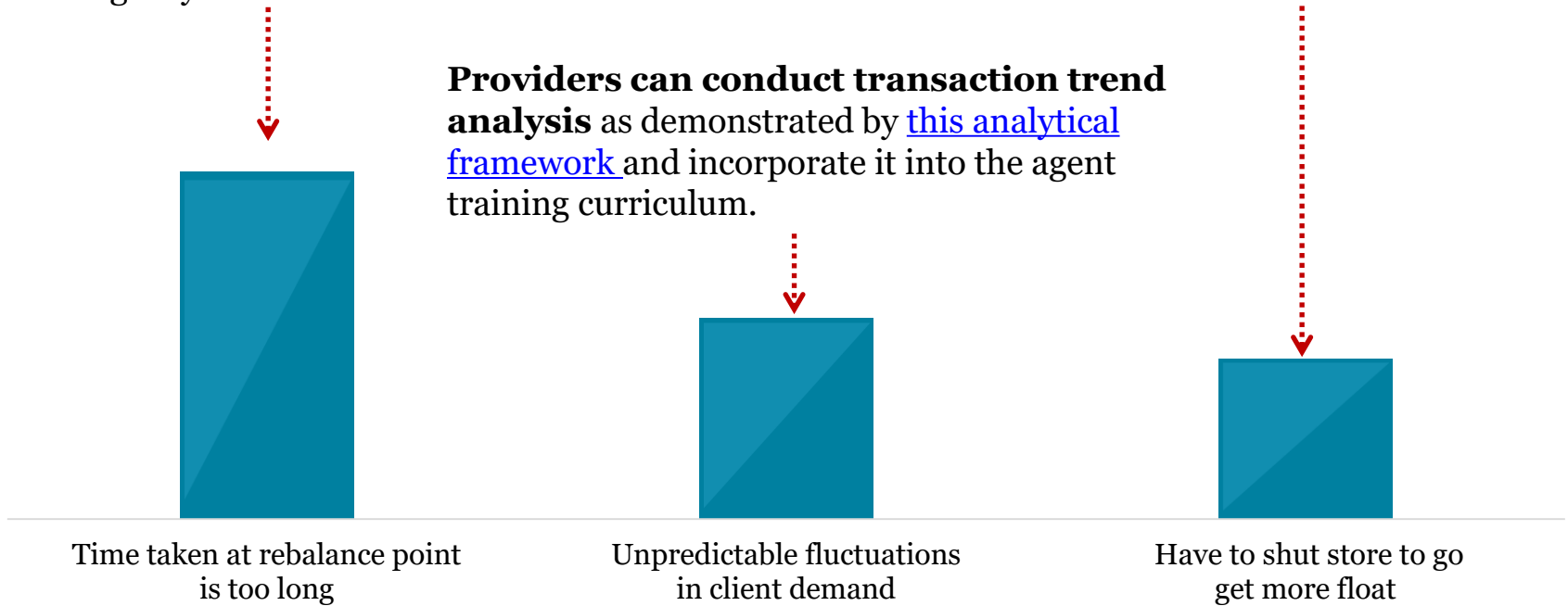
\*0.7% who mainly rebalance at ATMs or in other locations are not shown in the graph, therefore bars do not add up to 100%.

# Agents' Top Barriers To Managing Their Liquidity\*

**Only 6% of all daily transactions are denied due to unavailability of cash or e-float in Senegal.** This percentage is on par with [Bangladesh](#) and lower than other African ANA countries. More than two-thirds of Senegalese agents report that they do not face any barriers in managing their liquidity.

Providers may want to **diversify rebalancing options** available to agents such as master agents, 'runner boys', introduce a line of credit or **offer dedicated counters at bank branches** to reduce the hassle of rebalancing and in turn the opportunity cost of closing the agency business.

**Providers can conduct transaction trend analysis** as demonstrated by [this analytical framework](#) and incorporate it into the agent training curriculum.

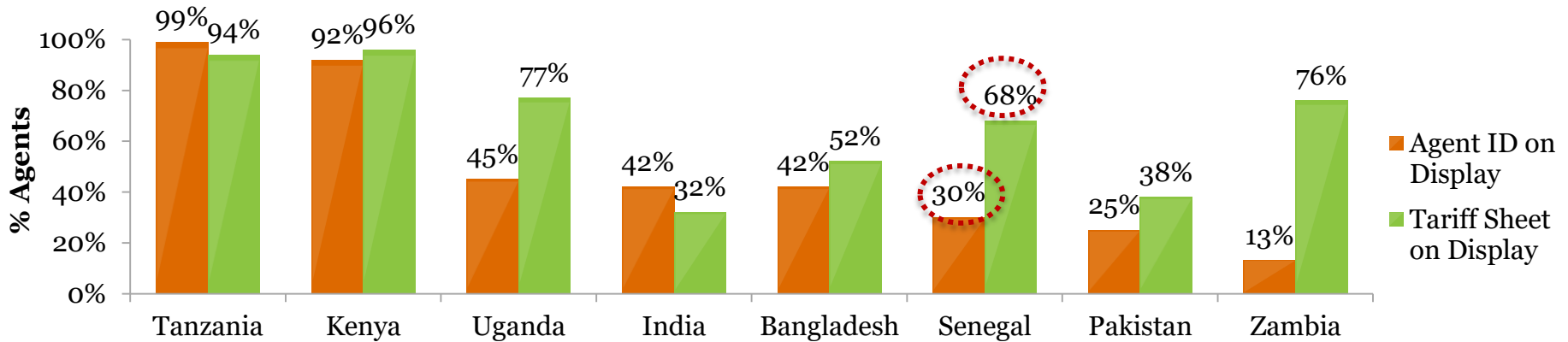


\*Agents were asked to select top three barriers they face from a list of 11 options, including the option to pick 'Other'. The above figures are a weighted average of the barriers ranked by agents, where taller bars mean a higher relative ranking.

# Control and Compliance

## Compliant Agents Do More Business

**Compliance in Senegal is lower than in the other African ANA countries.** Only two thirds of agents display tariff sheets inside their shops, and less than a third display their ID. **The percentage of agents who display a grievance number is particularly low (22%)** despite this being mandatory in the [BCEAO regulation on e-money](#).



▶ **Trained agents are more compliant:** they are more likely to display their agent ID (34%), tariff sheets (72%) and grievance cell number (24%).

▶ In fact, **compliance rates are the highest in rural areas** (74% display tariff sheets), where more agents receive initial training (83% versus 76% at the country level).

▶ **Agents who display tariff rates and/or IDs perform on average 3 more transactions** per day than those who do not.

▶ In an OTC market, not displaying tariff rates raises the risk of agents overcharging customers. Providers may want to **include training on compliance in their curriculum.**

# Outstanding Attributes Of Agent Network Management

- ▶ Senegal is a **competitive market with diverse digital finance players and business models**. Most agents are non-dedicated and non-exclusive.
- ▶ **Transaction volumes are high** for the overall business and comparable to leading East African countries. In particular, Senegal boasts a [pioneering cross-border remittance model](#).
- ▶ **Rural agents perform better** than their counterparts in urban areas: they conduct more transactions than at the country level.
- ▶ High revenues and low operating expenses contribute to high profits. **Senegalese agents are the most profitable** among all ANA research countries.
- ▶ **Liquidity management is effective** as only 6% of all daily transactions are denied due to the unavailability of cash or e-float.



## Opportunities For Improvement (1/2)

With more providers now offering wallet-based products, agents and customers will need to transition from the OTC methodology to wallet-based services.


**Providers can support them in this transition through:**


- **Agent segmentation:** It will be judicious to segment agents; for example, providers can distinguish between sales agents that register customers, teach them about products and help them navigate the user interface; and service agents that focus on basic cash-in and cash-out transactions.
- **Agent training:** Providers will likely want to train sales agents on the customer registration process as well as incentivise them to [build customer trust and increase uptake of services offered.](#)
- **Market segmentation:** Market research enables providers to understand what products will attract customers who are ready to adopt the wallet, and what intermediate steps providers can take to assist customers who may not yet be ready to embrace wallet-based products.
- **Customer education:** It will be prudent to invest in below the line marketing strategies to increase customer awareness and their confidence in performing self-initiated transactions.






## Opportunities For Improvement (2/2)

- 

**Providers need to improve the reliability of the system** by investing in platform capacity and building a system uptime monitoring tool, given that poor service quality could be a major roadblock to wider uptake and usage of DFS services.
- 

**Providers will want to ensure their agents are more transparent and compliant.** Findings in this report as well as research in Kenya suggest that [greater transparency](#) has a positive effect on agent’s business.
- 

Senegal is a highly non-exclusive market, and providers offer a similar product suite (largely OTC), yet all providers have parallel individual systems for training, monitoring and liquidity management. **Providers may want to collaborate on support services and outsource this role to a third-party agent network manager**, similar to [Eko India](#) or [MobiCash Bangladesh](#). This can then enable providers to focus their resources on product development and marketing campaigns.



# Appendix

## Appendix 1 - Methodology

The study is based on a nationally representative sample of 1,211 DFS agents. Since a country wide census of DFS agents was not available at the time of the agent network assessment, the sample frame is based on lists obtained from DFS providers with total agent counts, broken down geographically. The sample is designed to be representative at the country level, for urban and rural agents, and for the selected providers.

The sampling strategy was clustered random sampling of [administrative units](#) that were stratified into metropolitan, other urban and rural prior to randomisation.

- **Metropolitan:** Dakar region including all districts (Dakar, Guédiawaye, Pikine, Rufisque)
- **Other urban:** regional capitals (*chefs-lieux des régions*)
- **Rural:** areas outside regional capitals, district capitals (*chefs-lieux des départements*) and the surrounding areas.

Data were collected using the random walk methodology with the skip pattern proportional to the desired sample count for a particular location. Data collection and entry was performed using an Android device.

The use of an Android device allows for an additional level of randomisation and ensures the survey representativeness at the provider level. The provider an agent is interviewed for is randomly assigned by the application out of the list of all providers, for which the agent is active (i.e. has conducted at least one transaction within the last 30 days).

## Appendix 2 - Definitions

1	<b>Exclusivity</b>	<b>Exclusive Agent</b>	Agent who serves only one mobile money service provider.
2		<b>Non-Exclusive Agent</b>	Agent who serves more than one mobile money service provider.
3	<b>Dedication</b>	<b>Dedicated Agent</b>	Agent who conducts solely mobile money services.
4		<b>Non-Dedicated Agent</b>	Agent who conducts other business from the shop, in addition to mobile money services.
5	<b>Age of Agency</b>	Agents were asked to report the date they started serving each provider. Age of agency is calculated from the date the agent started serving the first provider.	
6	<b>Transaction Levels (Provider)</b>	In India, Zambia, Bangladesh, Pakistan and Kenya, transactions were calculated as the sum of reported average enrolment, cash-in, cash-out, bill payment, and 'other' transactions'; in Tanzania, Uganda and Senegal, transactions were calculated as the sum of reported average enrolment, cash-in, cash-out, money transfer, bill payments, remittances, social payments, salary, credit, savings deposit, insurance payments and 'other' transactions the agent conducts for the particular provider. Values of zero were excluded from analysis.	
7	<b>Monthly Earnings (Agency)</b>	In India, Zambia, Bangladesh, Pakistan and Kenya, agents were asked "What is your total monthly commission from all providers combined?". In Tanzania, Uganda and Senegal, this question was rephrased slightly: "On average, how much do you earn per month from all the providers you serve, combined?" Only owners reported on commissions.	
8	<b>Monthly Operating Expenses (Agency)</b>	In India, Zambia, Bangladesh, Pakistan and Kenya, agents were asked "How much on average do you spend per month as an agent to cover operational expenses?". In Tanzania, Uganda and Senegal, monthly operating expenses were calculated as the sum of reported rent, utilities, loan interest, staff salaries, business travel and other expenses. For non-dedicated agents, they were calculated as the sum of the difference between reported costs for the entire business and costs without mobile money. With this approach, we calculate just the marginal cost of mobile money for non-dedicated agents (and for 39% this was zero). Only owners reported on expenses.	
9	<b>Profit (Agency)</b>	Profit is calculated as the difference between monthly agency earnings and monthly agency operating expenses. Only owners who answered both revenues and expenses were included in this calculation.	
10	<b>Exchange Rate</b>	1 USD = 625 F CFA	

# Thank You

[www.helix-institute.com](http://www.helix-institute.com)

[info@helix-institute.com](mailto:info@helix-institute.com)



*Helix Institute of Digital Finance*



*Helix Institute*