

Commissioned by



Study on the adoption of cash-lite models among MFIs in India

August, 2017

Supported by



Research partner



Acknowledgement

MicroSave would like to thank MFIN for providing us with the opportunity to conduct this study, given the importance of the topic. We would also like to thank KfW and SIDBI for their support during the course of the study.

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List of acronyms

A/C	Account	MDR	Merchant Discount Rate
AEPS	Aadhaar Enabled Payment System	MFIs	Microfinance Institutions
APBS	Aadhaar Payment Bridge System	NACH	National Automated Clearing House
ATM	Automated Teller Machine	NBFC	Non-Banking Financial Company
BC	Business Correspondent	NEFT	National Electronics Funds Transfer System
BCNM	Business Correspondent Network Manager	NPCI	National Payments Corporation of India
ECS	Electronic Clearing Service	POS	Point of Sale
E-KYC	Electronic - Know Your Customer	SFB	Small Finance Bank
FI	Financial Institutions	SMS	Short Message Service
HO	Head Office	SMT	Senior Management Team
IL	Individual Lending	TAT	Turnaround time
IMPS	Immediate Payment Service	TSPs	Technological Service Providers
IT	Information Technology	UIDAI	Unique Identification Authority of India
IVRS	Interactive Voice Response System	UPI	Unified Payment Instrument
JLG	Joint Liability Group	USSD	Unstructured Supplementary Service Data
KYC	Know Your Customer		

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Executive summary (1/3)

The overall push towards cash-lite payments in India in general, and within the microfinance industry in specific, has prompted the need to understand and **document the experiences of microfinance institutions going cash-lite**, and **identify ways to accelerate adoption of cash-lite**. The current study aims to understand the overall strategic direction regarding cash-lite operations, the current status of cash-lite implementation, and the challenges faced in the adoption of cash-lite models for microfinance.

To achieve the stated objectives, a **mixed methods research approach** was adopted where a quantitative survey was filled by 36 MFIs and individual interviews were conducted with 11 MFIs, 10 TSPs and 13 industry experts. Additionally, field visits to two MFIs were conducted.

Key findings

In the fourth quarter of FY 2016-17, **39% of total disbursements** and **5% of total repayments** of the respondents were reported to be cash-lite. It is important to note that the proportion of cash-lite operations for individual loans (including both disbursements and repayments) was higher than those for JLG loans. For FY 2017-18, a higher proportion of institutions are planning cash-lite repayments under the IL model as compared to that for the JLG model.

Rationale for cash-lite

Institutions are choosing to go cash-lite to **improve operational efficiency** and help **mitigate risk**. The value proposition for customers to adopt cash-lite is currently limited but is evolving.

Models for cash-lite

- MFIs are using different payment solutions for disbursement of the loan amount. The disbursement data provided for the fourth quarter of FY 2016-17 suggests that **disbursement to customer bank account through NEFT/IMPS and cheques** are the most common. An analysis of the different disbursement options on parameters such as cost to customer, customer convenience, cost to MFI and ease of implementation of the model was conducted. It showed that the **APBS model followed by the direct transfer of money to bank accounts through NEFT/IMPS was found to be more efficient** for both customers as well as the financial institutions.
- Basis the same analysis as above, the **ECS/NACH mechanism to collect loan repayments is more suitable** for both customers and financial institutions.

Experience of MFIs with cash-lite models

- MFIs perceive that the adoption of cash-lite models has led to a **positive impact on operational aspects** (reduction in the TAT, reduced time spent on data reconciliation, increased level of safety in handling cash, and increased level of convenience to customers).
- With increasing adoption of cash-lite means for repayment, it might become imperative for MFIs to revisit **the agenda of the centre meetings** to ensure such meetings stay relevant for customers.

Executive summary (2/3)

- For any institution to successfully implement a cash-lite model, it is essential that the SMT gives the required level of direction and guidance to the entire team. Currently, the **lack of a clear strategy by the SMT has been perceived as a critical challenge** by financial institutions. In the process of implementing cash-lite models, MFIs have faced **challenges in funding the Opex. Lack of adequate levels of physical and internet connectivity coupled with the lack of a reliable BC network** further slow down cash-lite adoption.
- At the level of the end customer, most **cash-lite models require a positive behavioural change** towards the usage of bank accounts. The pre-dominant usage of cash in the customer's eco-system is a critical bottleneck towards these changes.

Recommendations

For MFIs

- MFIs need to **articulate a strategic view** for going cash-lite by holistically looking at the current and future positioning of the MFI and the overall direction of the financial services sector.
- **Identifying, communicating and delivering a clear value proposition for customers** is critical for the uptake of cash-lite by customers. The MFI would therefore need to clearly state how cash-lite will positively affect customers.
- Due to the variation in the overall payments ecosystem and the level of comfort among people of using digital payment solution, MFIs may need to **identify customer segments who could be early adopters** of cash lite. Potential parameters to identify customer segments are regularity of credit or income in bank account, past experience of using digital payments, location and age.
- Since cash-lite is a specialised service where MFIs need to partner with different third-party service providers, **choosing the right partner is essential**. MFIs may look at compatibility in business objectives and technological aspects, past record, and commercial sustainability while identifying partners.
- The **choice of payment solution** is also critical and aspects such as current technological infrastructure of the MFI, capacities of staff and customers, cost, capacity of the proposed system and its customisability may be looked at during selection of appropriate technology.
- The pilot-test as well as roll out of cash-lite needs to be structured with nomination of an **inter-disciplinary project team** and a **well-defined terms of reference**.
- Since adoption of cash-lite entails modification of existing front-end and back-end processes, there is a need to **document these revised processes** and **train staff** on them.
- To smoothen implementation, an **internal and external communication strategy** that focuses on cascading the vision for cash-lite, generating a buy-in among staff, communicating the value proposition to customers and educating them to adopt cash-lite may need to be developed.

Executive summary (3/3)

For donors and investors

- Investors may need to **stay patient** during the cash-lite transformation and **guide the senior management throughout the transformation process**.
- Investors may also need to **invest in building the ecosystem** to support cash-lite adoption. Some areas of investment include development and testing of appropriate technologies, capacity building of MFIs, knowledge development and dissemination, development of financial services distribution including agent network and merchant acquisitions.

For MFIN

- Given that cash-lite adoption is still in testing phase, MFIN may **support pilot test with a few MFIs and disseminate learnings from the pilot with the larger industry**.
- MFIN, being the collective voice of its member institutions, may **actively communicate common challenges with relevant stakeholders including policy makers**.

For Policymakers

- **Current structural issues with business correspondents** such as the need for **white-label BCs** and their **certification** require policy support.
- The **current thrust on promoting digital payments needs to be maintained** through implementation of measures and policy changes suggested by Niti Ayog to drive adoption of cash-lite.

2. About the study

Motivation for the study



Characteristics



- Pre-dominantly cash-based economy, with over 75% of all transactions being cash based
- Transition to digital payments has been slow due to **low literacy level, poor technology infrastructure, and lack of suitable payments solutions**
- Consequently, there is **reduced safety, increased cost**, and higher possibility of **money laundering**

The Government of India's recent drive to promote cash-lite is targeted to **address the challenges of a cash intensive economy** and **lead to benefits such as:**

- Increased convenience
- Improved transparency
- Increased efficiency
- Reduced cost of managing cash, and
- Reduced risk such as counterfeit currency

While some MFIs in India had already started their journey on the digital path, the government's recent thrust on promoting digital transactions has provided an impetus to go cash-lite

Traditionally, microfinance in India is **cash intensive**, as the target customers mostly transact in cash. Digital interventions are at a **nascent stage** and **cash-lite models are still evolving**

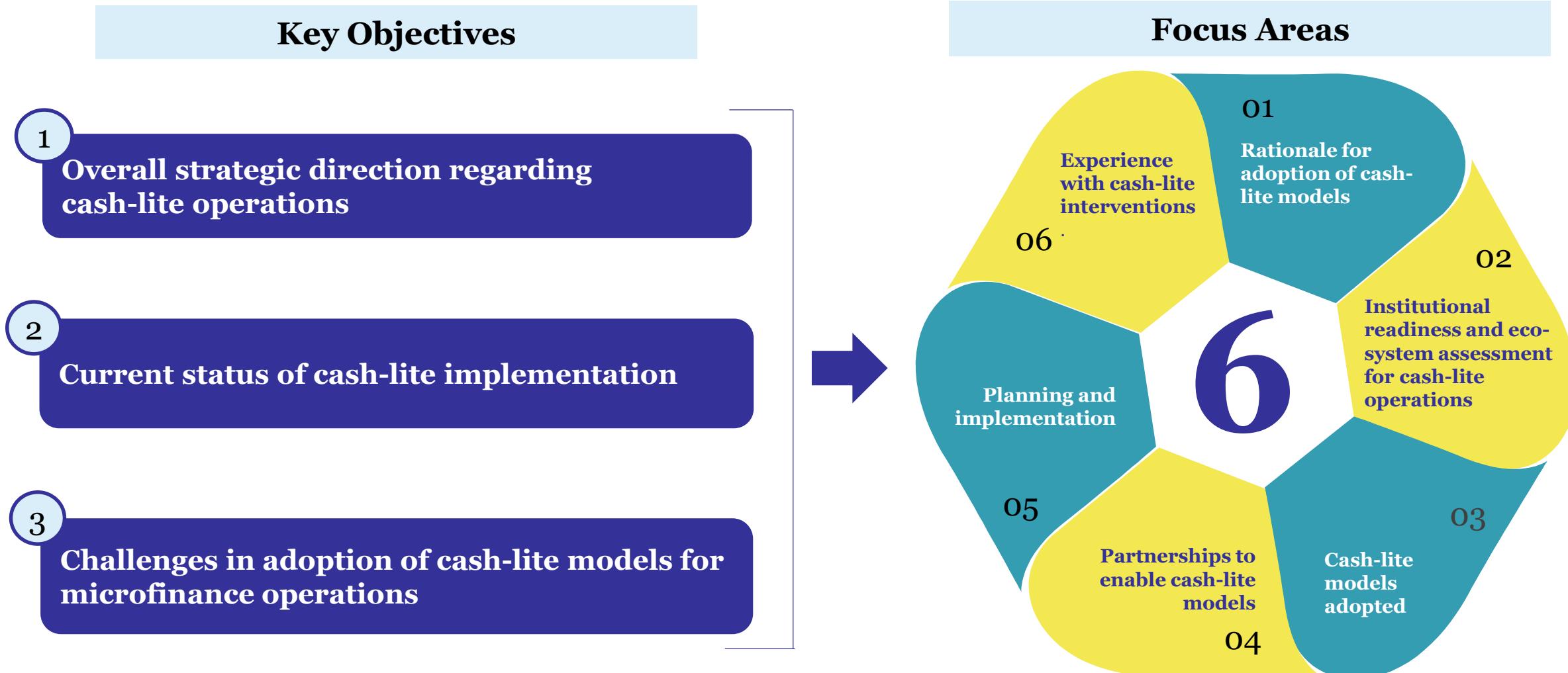
Cash-lite interventions so far

1. Disbursement of loan amount directly to the beneficiary's bank account
2. Use of auto-debit facility on the beneficiary's account to collect repayments
3. Use of electronic money to disburse loans and collect repayments by leveraging network of agents

The current study therefore attempts to analyse the experiences of MFIs by including perspectives of practitioners, technology service providers and industry experts, to ultimately recommend measures to accelerate adoption of cash-lite operations among MFIs in India.

Objectives and focus areas

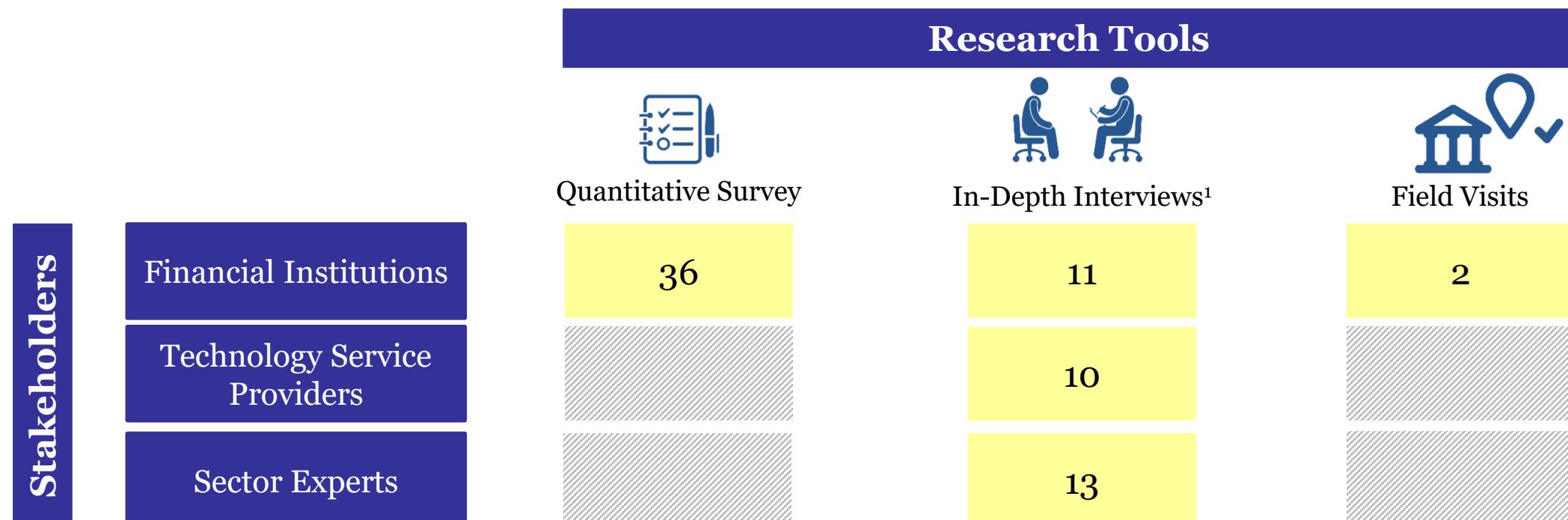
The study seeks to document learnings so far, fold in varied perspectives, and recommend broad measures to accelerate adoption of cash-lite



Methodology, tools and sample size

A mixed methods approach involving three main stakeholders – financial service providers, technology service providers and industry experts

We engaged with a variety of stakeholders (in addition to MFIN) including financial service providers (NBFC-MFIs, SFBs and commercial banks), technology service providers and sector experts. We adopted primary research methods (primarily qualitative research), supplemented by secondary research, to gain a holistic perspective.



Tool **not used** for respective stakeholder



Tool **used** for respective stakeholder

¹ Out of the total 34 interviews, 10 were conducted in-person while the rest were conducted over phone
Note – See [Annexure 1](#) for the list of MFIs who filled up the online survey and [Annexure 2](#) for the list of people interviewed

Characteristics of the sample (for online survey)

The respondents operate in diverse geographies and are primarily NBFC-MFIs

The online survey was shared with all the MFIN members and associate members. A total of 36 institutions filled up the survey, 34 of which are members, while 2 institutions are associate members.



Category of Institution

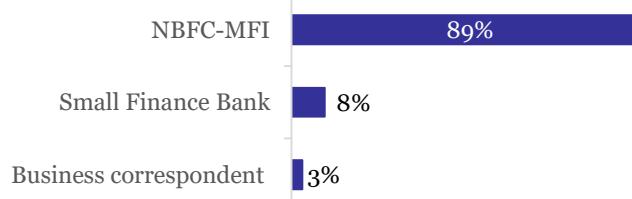


Gross Loan Portfolio

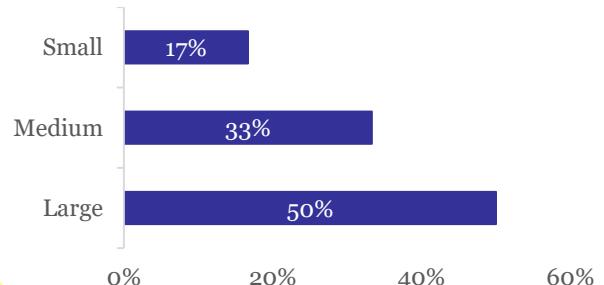


Geographical Spread

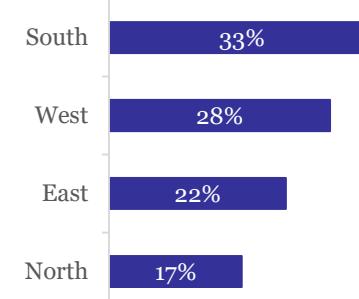
Category of Financial Institutions¹



Distribution of institutions across their GLP (as of 31st March, 2017)¹



Geographical spread of Financial Institutions²



Limitations of the study

The study has certain limitations due to the limited scope of the design of the research

- 1** The current study does not cover the full spectrum of MFIs and focuses primarily on NBFC-MFIs
- 2** The study has limited perspectives from the end-customers as the design and scope of the research was focussed on supply side factors
- 3** For drawing inferences and findings, the authors have depended on the inputs provided by the respondents and no information has been verified
- 4** The responses are based on the perception of the respondents and are likely to differ across the management hierarchy
- 5** A few MFIs reported cash-lite operations data for Q4 2016-17 but did not mention adopting cash-lite in the quantitative survey. Similarly, some institutions that have mentioned the adoption of cash-lite models in the survey have not shared supporting operations data. This has an implication on the cash-lite trends presented in the study.

3. Current status of cash-lite

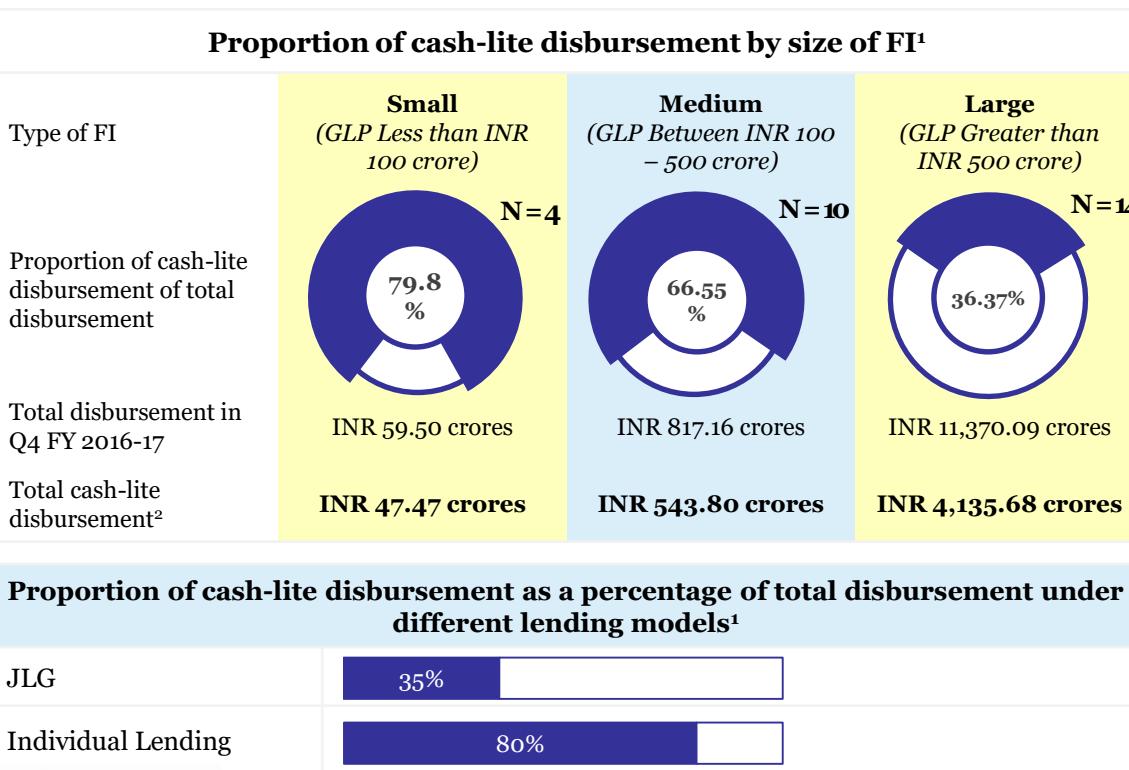
Status of adoption of cash-lite loan disbursement and plan for FY 2017-18

The thrust towards cash-lite disbursement is evident, with MFIs of all sizes either disbursing or planning to disburse loans through non-cash means

Current Status



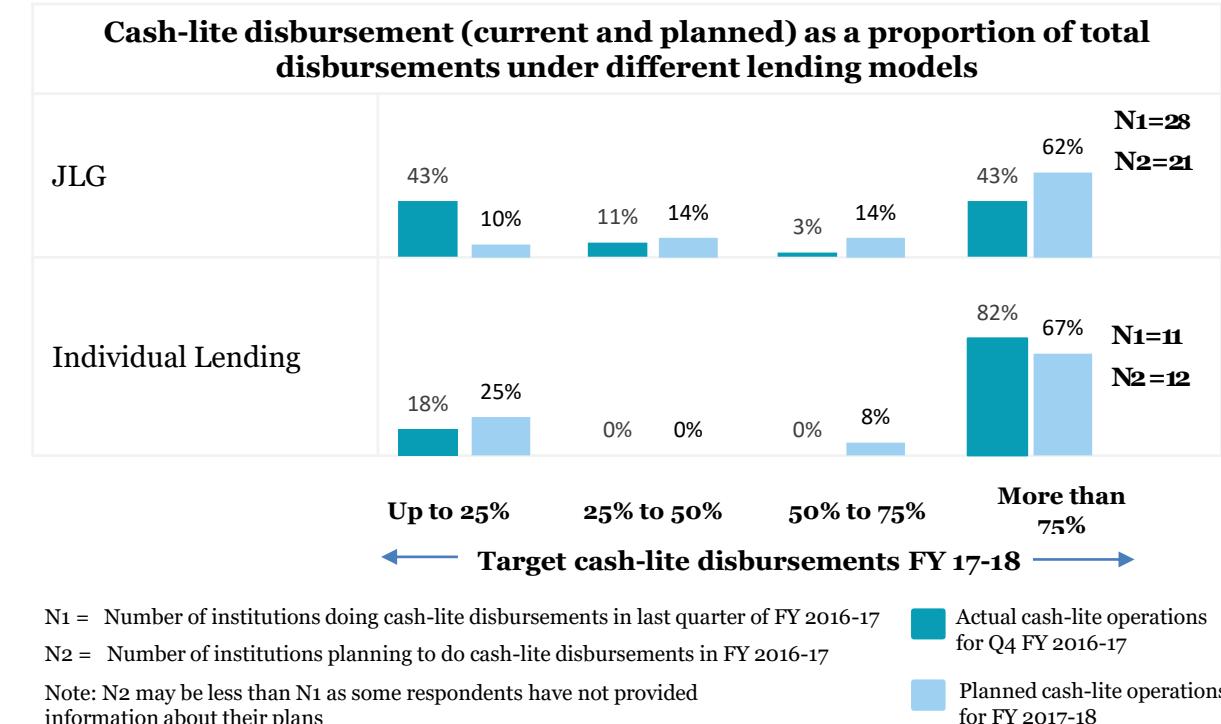
24 of the **36** MFIs who filled the online survey have reported to adopt cash-lite models for disbursement



Plan for FY 2017-18

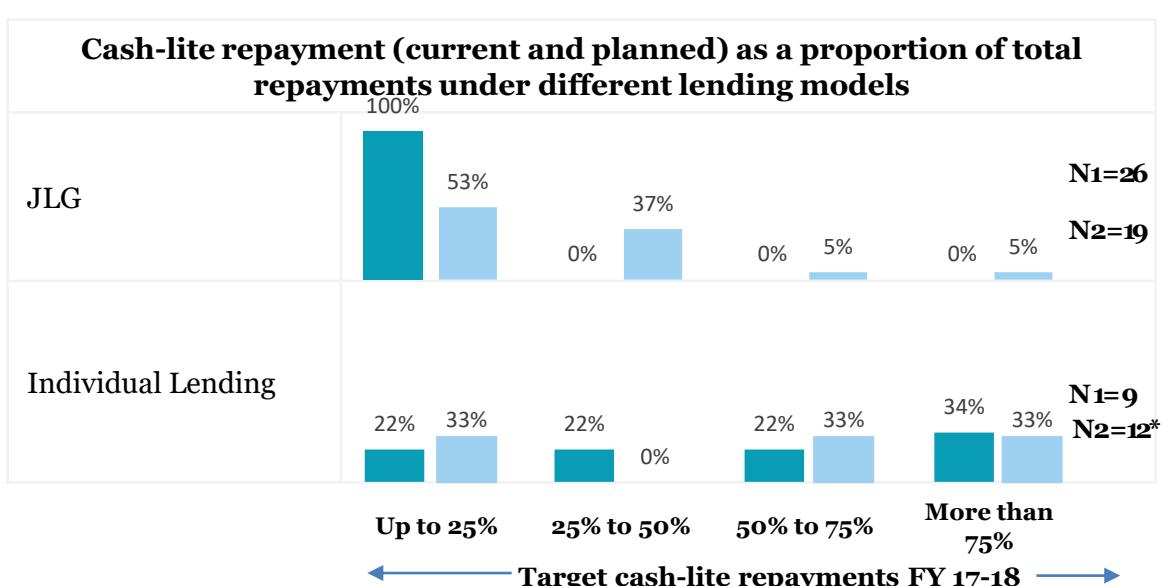
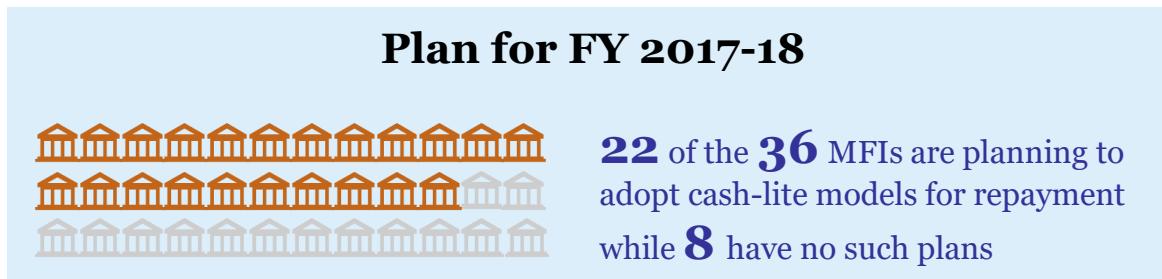
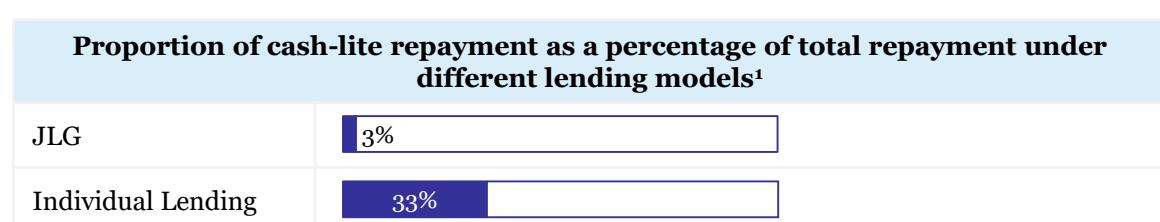
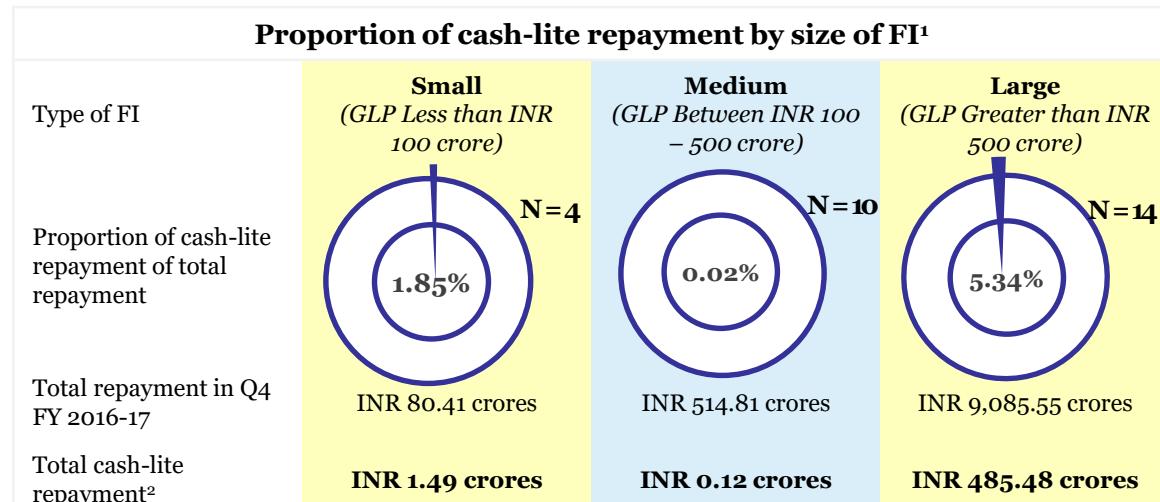
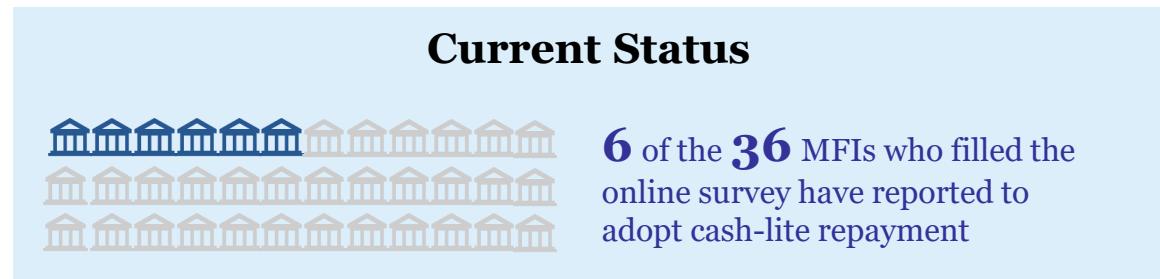


12 of the remaining MFIs are planning to adopt cash-lite models for disbursement



Status of adoption of cash-lite loan repayment and plan for FY 2017-18

The rate of adoption of non-cash means for repayment is low. However, many MFIs plan to start with cash-lite repayments in FY 17-18



N1 = Number of institutions doing cash-lite repayments in last quarter of FY 2016-17

N2 = Number of institutions planning to do cash-lite repayments in FY 2016-17

Note: N2 may be less than N1 as some respondents have not provided information about their plans

* 33.3% institutions have given responses to each of the 3 buckets leading to a total of 100%

Reported cash-lite operations for Q4 FY 2016-17

Planned cash-lite operations for FY 2017-18

¹ Source: Operational performance data for Q4 FY 2016-17 shared by 28 MFIs. Note not all the 36 MFIs who responded to the survey have provided this data.

² Total cash-lite repayment is the sum of the value of cash-lite repayment in Q4 FY 2016-17 reported by the MFIs. Of the 28 MFIs, 14 MFIs have not reported any cash-lite repayment operations (left the data column blank), 3 have reported INR 0 as the value and 11 MFIs have provided values greater than INR 0. For the MFIs who did not report cash-lite repayment operations, it is assumed that the value of cash-lite repayment is zero.

4. Rationale for cash-lite

What drives MFIs to go cash-lite?

The transition of MFIs to cash-lite seems more operational than strategic in nature

Top reasons to go cash-lite

% of MFIs reporting high importance

Rank	Reason	% of MFIs reporting high importance
1	Risk mitigation	86%
2	Operational efficiency	81%
3	Innovation	67%
4	Manage scale of operations	64%

Risk mitigation – All small MFIs sampled in the survey considered risk mitigation as a highly important reason for going cash-lite. Risk mitigation includes: prevention of cash **theft** and staff **fraud**, minimisation of **calculation errors/mismatch**, mitigation of threat to **safety of field and branch staff**

Operational efficiency – Another key reason for cash-lite, it is attributed to improvement in **turnaround time** for key processes realised through improved **cash management** practices and **rationalisation of staff time**

Innovation – The need to innovate as a rationale for cash-lite is also rated high by 67% of the respondent MFIs

Regulatory reasons – Rated high by small players (4/6), and medium to low by large and medium players (17/30) indicating that smaller MFIs see this largely as a push from regulatory agencies

Product diversification – Most MFIs (15 of 36 gave low to no importance) do not see cash-lite as a means to diversify products, thereby which implies a rather narrow and limited view of the MFIs about digital channels

Customer demand – There seems to be limited value proposition for customers at this stage, and “customer demand” as a rationale was rated medium to low (28/36); 3 players even rated it as not important

Perception of cost and revenue benefits due to cash-lite

Cost Benefits

% of MFIs reporting high importance

Rank	Benefit	% of MFIs reporting high importance
1	Cash/liquidity management cost	81%
2	TAT improvement	75%

It is believed that cash-lite will reduce complications related to cash management (**idle cash**, **cash transportation**, **cash counting**) and in turn bring cost benefits

Revenue Benefits

% of MFIs reporting high importance

Rank	Benefit	% of MFIs reporting high importance
1	Increase in staff productivity	83%
2	Increase in client base	53%

Perceived benefits on the revenue side are improvement in staff productivity and expansion of client base

“The focus on operational drivers is a ‘little unfortunate’ because in the absence of deliberate strategic rationale/thinking, MFIs tend to have an operationally myopic view.”

- An Industry Expert

Do the customers want cash-lite?

At this stage, there isn't much push from customers. Instead, MFIs need to create and communicate value to customers for going cash-lite

"If done right, digital can enable targeted products. Conceptually, it can create a huge difference. In practice though, such changes are operationally driven, rather than customer driven."

- An Industry Expert

Driving customers to adopt cash-lite is a challenge...

- **Cash-based ecosystem** – Customers transact primarily in cash: both inflows (payments, wages, salary) and outflows (rent, utility bills etc.) are in cash
- **Comfort with technology** – Customers are not comfortable transacting digitally – whether through cards, mobile money or through agents
- **Mobile ownership** – Typically low, especially among women customers of MFIs. Thus, any transaction that requires mobile phones creates hassles
- **Literacy** – Lower levels of literacy also create barriers
- **Past experience** – Poor experience in the past (own experience or someone else's in the community) often adversely impacts trust on digital payment systems

...but there does exist some value propositions

- **Turn-around Time** – A major value proposition that a large MFI in south India has been able to offer to its customers is faster loan disbursements; In urban areas, the MFI disburses loan within one day, while in rural areas, it achieves the same within a week. This has resulted in strong positive feedback for the MFI on the field
- **Duration of centre meetings** – Customers appreciate the reduction in centre meeting time from over 25 minutes to under 15 minutes (as reported by a TSP)
- **Savings** – Flexibility of repayment dates allows customers to transfer money into their bank account/wallet/prepaid card, etc. at their own convenience before the due date. This leads to some form of "forced saving" for customers (especially if the money is deposited in a bank account)
- **Additional services** – In case of an MFI that provides micro-ATM services to their customers at no additional cost, customers feel that the bank has come to their doorstep



"There is still a long way to go for digital payments. Unless there is a clear value proposition for customers, cash-lite adoption will be slow" – CEO of a small MFI

Will going digital lead to cost savings?

Adoption of cash-lite is likely to bring down cost for the MFIs, however there is scope for review of pricing models of current payment solutions

It is yet to be established with certainty whether implementation of cash-lite models for disbursement and repayment will lead to cost savings for MFIs. While one group of MFIs believes that in the long run, savings from cash management and rationalisation of staff will lead to savings, the other group believes that the cost for digital payments today is more than the cost they incur in cash management, hence it may not be sustainable.

High cost of cash management for MFIs		Aspects where there is scope for cost savings
Evidence from a MicroSave study		
1	Management of multiple bank accounts for each branch	
2	Cost of idle cash	
3	Cash risk management cost (insurance premium, claim processing cost in case of theft)	
4	Rationalisation of staff time, more time for monitoring/customer service	
5	Physical transportation of cash	

"Cash is counted seven times during the day. This leads to significant inefficiency and a high risk of errors in tallying cash"

- An MFI CEO

It appears that realising the cost benefits of cash-lite immediately may be difficult due to the high upfront cost of cash-lite solutions. However, MFIs need to look at cash-lite from a broader perspective of improving the overall operating model and reaping benefits in the long run.

- The commission pay-out on digital payments is more than the cost savings for many MFIs. There seems to be a need for a better pricing model from banks and other payments service providers to ensure sustainability of cash-lite interventions. Currently, the MFIs may not have enough influence on negotiating better pricing deals with payment service providers, despite having the potential to offer large volumes.
- Additionally, the entire microfinance operating model currently revolves around cash. For instance, the operational timings are around bank timings. The radius of operations is also limited in most cases by the distance customers/staff can travel with cash. Cash-lite operations give MFIs a chance to re-think their models and not focus only on cost savings.

Is there a conducive environment to go cash-lite?

The government's efforts to adopt cash-lite have helped to create a favourable public opinion to adopt cash-lite payments

While **demonetisation** led to several challenges for MFIs and their customers, there were some positive effects in favour of promoting cash-lite among the masses including the typical MFI customers

- **Acceptance** – The front-line staff and clients are now more open towards promoting and accepting digital channels
- **Formal savings** – Demonetisation, in particular, negatively affected women who had saved cash at home and had to let go of their money. They are now determined to save money only in the bank and not at home
- **Compliance** – Sense of uncertainty among MFIs, desire to be better prepared to deal with such unforeseen regulatory changes and to remain aligned with government policy
- **Policy change** – Regulations is among the key drivers, especially for small institutions, to go cash-lite. For instance, transactions above INR 2 lakh cannot be made in cash now.

"Demonetisation [and cashless] has helped people develop a clear understanding and recognition of digital (since it is a government initiative, there is trust)– 'govt. is saying toh acha hoga' [since government is saying, it should be good]"

- An industry expert

To further promote digital payments in the country, the Interim Report of the Committee of Chief Ministers on Digital Payments has proposed a number of initiatives¹. Such measures, when implemented, are likely to help MFIs adopt cash-lite.

1 A subsidy of INR 1,000 may be provided by the Ministry of Electronics and Information Technology for smart phones for non-income tax assessees and small merchants

2 AEPS/ AadhaarPay to be promoted by providing incentives to small merchants, and no MDR to be charged for AEPS enabled merchants

3 Biometric (Fingerprint & Iris) sensors may be provided at 50% subsidy for all merchants to onboard on to AadhaarPay

4 BCs to be encouraged by ensuring minimum monthly income, introducing more services, and crediting commission on a daily basis

5 Income tax rebate on incremental earning, sales tax rebate on incremental sales being disclosed by accepting payments through/from digital channels

Focus on non-cash payments: Case of a small businessman

The thrust on non-cash payments increases when both the suppliers as well as customers demand non-cash payments

Deepak Maran, Eatery Owner, Madhya Pradesh

"Before demonetisation, 90% of transactions were made in cash. It has now decreased to approximately 30% after the drive. This was the effect of demonetisation."

Deepak Maran is a 38 year old businessman. He owns a *dhaba* (Baghdi dhaba) which is 30 kms away from Bhopal. He stays in Bhopal with his family.

It all started with customers offering to pay through Paytm. Deepak had been using Paytm from the past 3 years, but he was not accepting payments from customers on Paytm. Soon after the customer requests started coming in, he installed Paytm and started accruing its benefits i.e. more customer footfall due to increased choices of payment. He is also planning to install the Point of Sale (POS) machine as he wants to give customers additional payment choice.

Most of his vendors were resorting to cheque. After the demonetisation drive, his transactions through cheque increased, especially due to stock vendors. He faced difficulty in procuring liquid cash, which led him to postpone his employees' salary as they demanded cash payment.



Note: This case study is reproduced from *MicroSave* study on impact of demonetisation. The case study was prepared immediately after demonetisation. However, recent experience suggests that post remonetisation, people have gone back to cash as the preferred medium of transaction for business

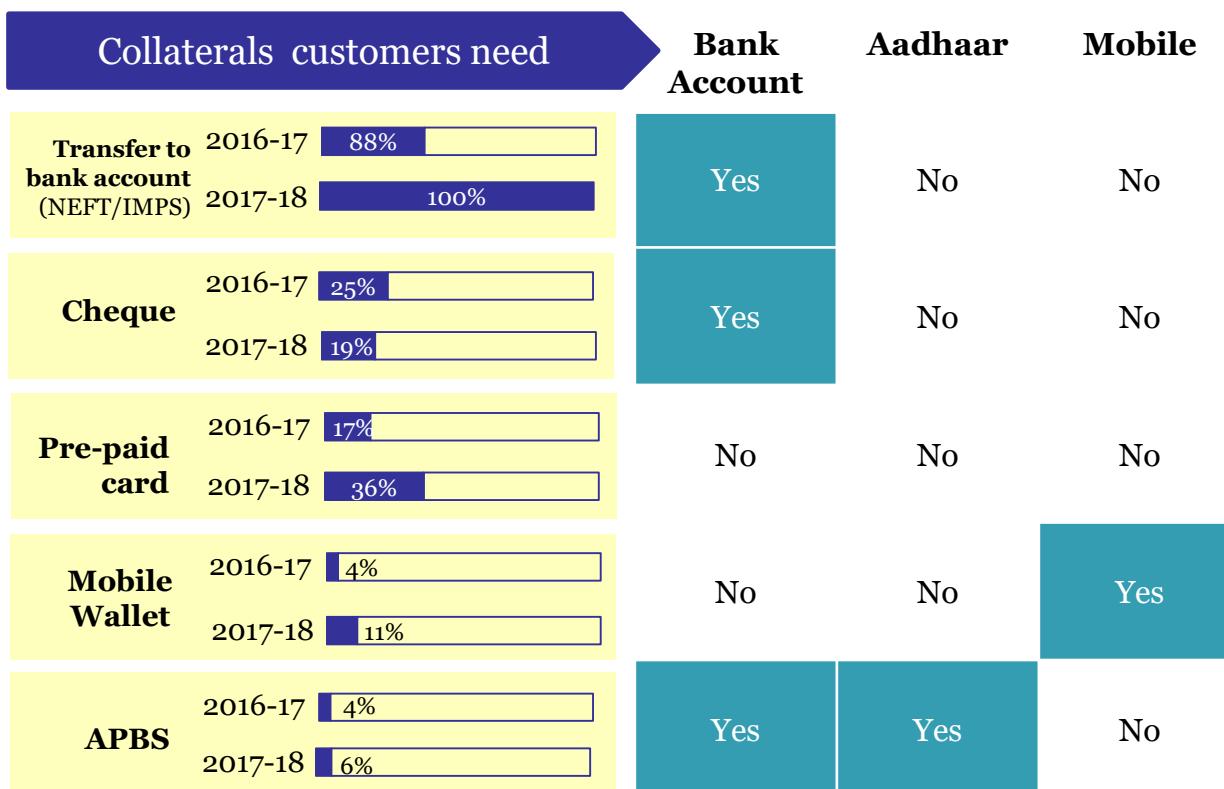
5. Types of cash-lite models

Overview of cash-lite disbursement and repayments modes

MFIs prefer to disburse loans directly to customers' bank a/c, but repayment collection for group loans is still an experiment in progress

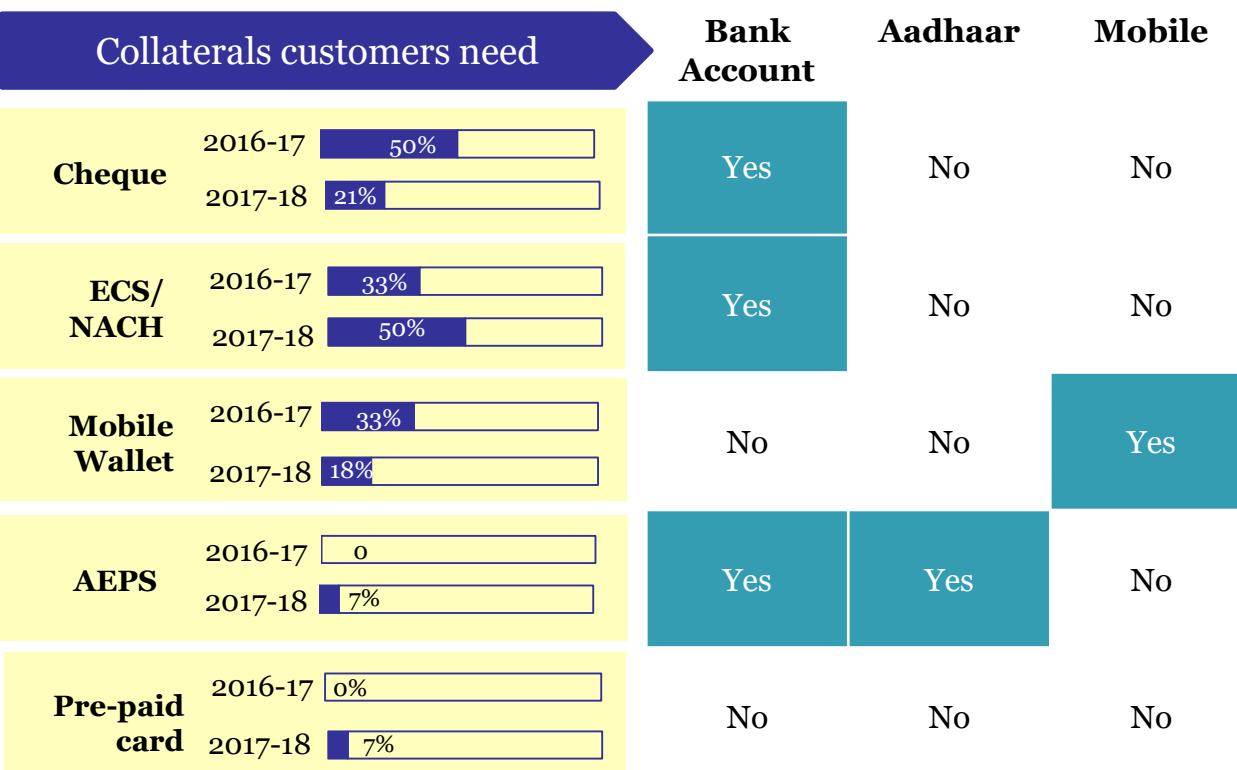
Modes for disbursement

Previously, pre-paid cards were preferred because these did not require customers to own a bank a/c. However, with deeper penetration of bank accounts among the target segments, disbursement directly to customer bank a/c is gaining prominence.



Modes for repayment

MFIs prefer cheques followed by auto-debit facility such as ECS/NACH for repayment of high ticket size individual loans. Repayment collection through agent based means (mobile wallets, AEPS, pre-paid cards) is still very limited.



Note: The percentages represent the number of institutions who chose a particular mode.
The respondents had the option to choose more than one mode.

5.1 Disbursement models

Analysis of modes used for cash-lite disbursement

The choice of modes for disbursement requires careful deliberation of their pros and cons and the context of MFIs and their customers

Mode	Pros	Cons	Remarks	Overall Rating
NEFT/IMPS	<ul style="list-style-type: none"> 1. One time activity to collect bank a/c details 2. No additional effort from customers 	<ul style="list-style-type: none"> 1. Centralised disbursement requires additional resources 2. Incorrect a/c details may cause delays and errors 3. Batch processing may cause delay 	<ul style="list-style-type: none"> 1. Preferred mode as it streamlines idle cash management 2. MFIs only need internet banking to process payments 	
Cheque	<ul style="list-style-type: none"> 1. Low risk of transaction errors 2. Higher awareness of customers about cheques 	<ul style="list-style-type: none"> 1. High indirect cost for customers – multiple visits to bank branch 2. Cumbersome and tedious 3. No digital trail 	<ul style="list-style-type: none"> 1. Suitable where disbursements are decentralised 	
Mobile Wallet	<ul style="list-style-type: none"> 1. No need for customer to have a bank a/c 2. Facility of mobile-based self-initiated transactions 	<ul style="list-style-type: none"> 1. High dependence on agents or third party to help consumers operate the wallet 2. Risk of agent fraud 3. Limited trust of customers on mobile based transactions 	<ul style="list-style-type: none"> 1. Suitable for urban and young customers who are familiar with mobile-based transactions 	
Pre-paid Card	<ul style="list-style-type: none"> 1. No need for customer to have a bank a/c 2. Payment can be instantly credited in case of pre-activated cards 	<ul style="list-style-type: none"> 1. Cards are costly and have limited validity 2. Customers can't withdraw an amount less than INR 100 	<ul style="list-style-type: none"> 1. Suitable where bank a/c penetration is low 	
APBS	<ul style="list-style-type: none"> 1. Instant transfer 2. Lower risk of payment to incorrect beneficiary 3. Lower cost 	<ul style="list-style-type: none"> 1. Customers need to seed their bank account with Aadhaar¹ 2. Amount credited to last seeding a/c which causes confusion in case a customer has multiple a/c 	<ul style="list-style-type: none"> 1. Easier to implement, as Aadhaar details are already being captured for all customers 2. Requires one-time activity to encourage customers to seed bank a/c with Aadhaar 	

¹ Seeding of Aadhaar to bank a/c is mandatory now

Assessment of disbursement models – transfer to bank a/c

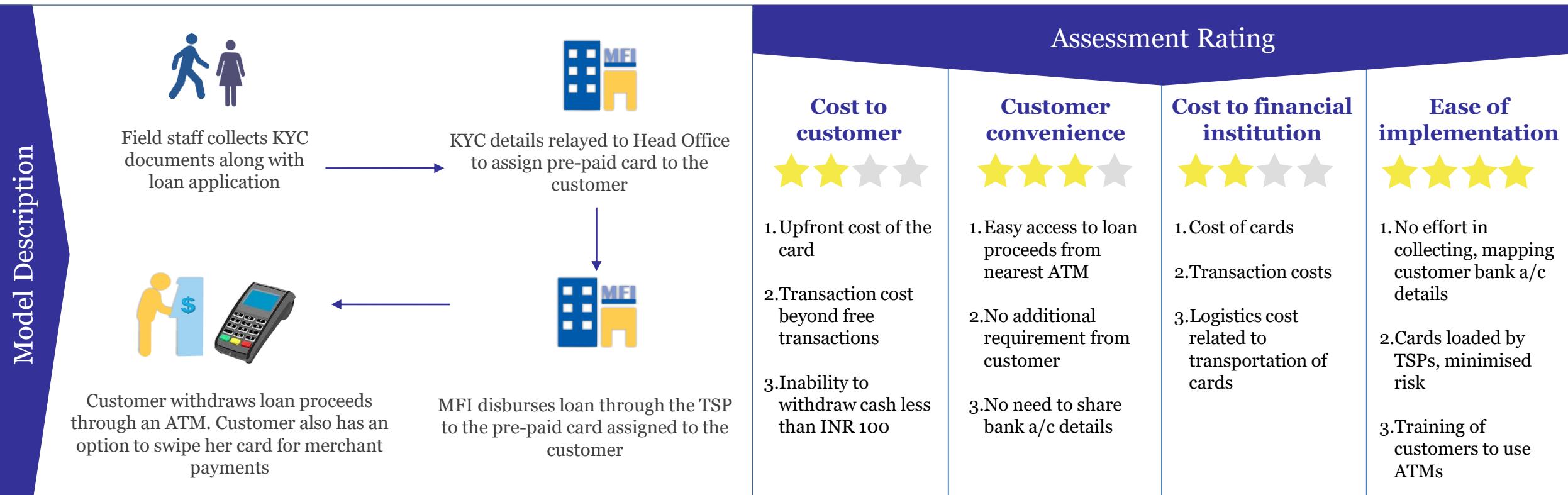
Disbursement to customers' bank account is cheaper and convenient both to the customers as well as the MFIs

Model Description	Assessment Rating			
	Cost to customer	Customer convenience	Cost to financial institution	Ease of implementation
 <p>Field staff collects bank a/c details along with loan application from customer</p>  <p>Customer withdraws loan proceeds from the bank branch or ATM (in case ATM card facility is available with the a/c). Customer also has an option to swipe her card for merchant payments.</p>  <p>Bank a/c details relayed to HO either directly or through the branch</p>  <p>MFI records and verifies the bank a/c details, and disburses loan directly to customer bank a/c using NEFT/IMPS</p>	 <ul style="list-style-type: none"> 1. No upfront cost (existing bank a/c holder) 2. Indirect cost for cash withdrawal 3. Earn interest on deposit in bank a/c 4. Transaction cost beyond free transactions 	 <ul style="list-style-type: none"> 1. Additional step to withdrawal cash (not applicable if disbursement happens at MFI branch) 	 <ul style="list-style-type: none"> 1. One time cost of collecting bank a/c details 2. Additional indirect cost to help customers to open bank a/c 3. Incentive to staff (optional) to collect bank a/c details 	 <ul style="list-style-type: none"> 1. Minimal change in customer level processes 2. Training of staff to collect accurate bank a/c details 1. Training of customers to use ATMs

- Increased bank account penetration has created an enabling environment for adoption of this model for disbursement
- Disbursement to customers' bank accounts also supports financial inclusion by increasing access and usage of bank accounts

Assessment of disbursement models – prepaid cards

Pre-paid cards require minimal effort from the customers as well as MFIs, but may not be efficient for customers who have bank accounts



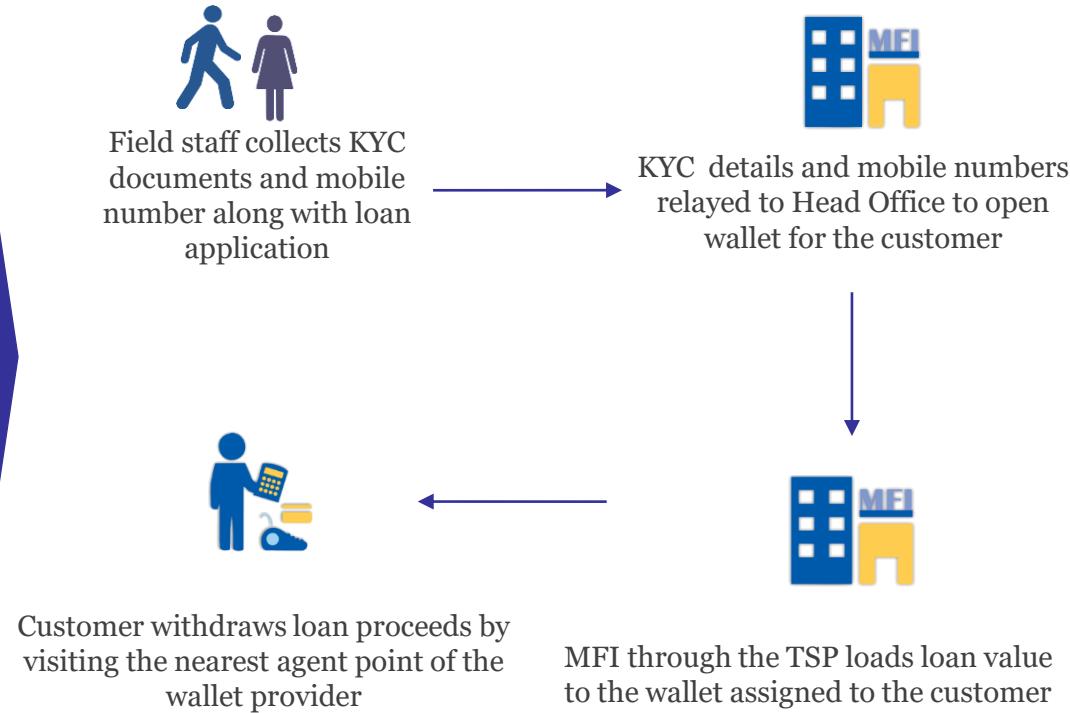
Key Takeaway

- The relative ease of implementation makes it attractive for MFIs to adopt pre-paid card based models.
- Pre-paid card providers generally provide additional services such as access to agent network that allows adoption of the same for repayment and an opportunity to earn commission on third-party services used by MFI customers

Assessment of disbursement models – mobile wallets

Mobile wallets are more suitable for young and urban customers who are familiar with mobile-based payment technology

Model Description



Assessment Rating				
	Cost to customer	Customer convenience	Cost to financial institution	Ease of implementation
	<ul style="list-style-type: none"> 1. Upfront cost of wallet, cost of SIM card 2. Cost incurred on multiple visits to agents (if agent does not fulfil transactions) 	<ul style="list-style-type: none"> 1. Not used to transacting via agents, resulting in lower level of trust on agents compared to the MFI staff 2. May need to make multiple visits 	<ul style="list-style-type: none"> 1. Cost of SIM in case MFI bears the upfront cost 2. Agent support and monitoring cost 	<ul style="list-style-type: none"> 1. Educate customers on use of wallets 2. Handholding of customers to assist with transactions at agents 3. Setting up customer support

- The success of the model depends largely on the spread and quality of agent network. Often, MFIs depend on the partner for agent network but the MFIs might have to invest their own resources to help identify suitable agents.

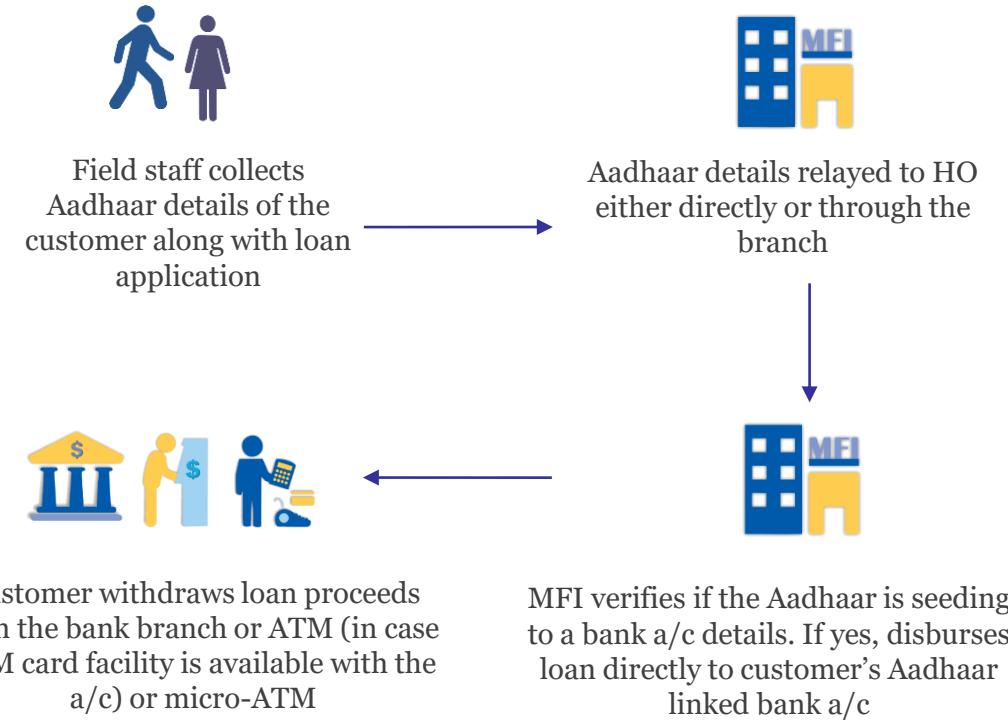
"Wallets will never work in Indian context. There are various hidden charges levied on the customer which even the educated class cannot understand. Wallets will intimidate the customer, such that he will never use digital medium."

– A Sector Expert

Assessment of disbursement models – Aadhaar Payment Bridge System

APBS may prove to be not only most economical, but also most efficient for both customers and MFIs in the long run

Model Description



Assessment Rating				
	Cost to customer	Customer convenience	Cost to financial institution	Ease of implementation
	1. Cost of seeding Aadhaar	1. Initial hassle of seeding Aadhaar 2. No need to share any detail once the Aadhaar linked bank a/c is mapped to the customer	1. Cost of raising verification query and transaction cost 2. Cost of micro-ATMs (if MFIs hosts micro-ATMs) 3. Cash and agent management cost in MFI BC model	1. Setting up centralised unit for Aadhaar seeding validation 2. Educate customers and staff on Aadhaar-enabled transactions 3. Cash management (micro-ATMs hosted by the MFI)

- APBS may be suitable for MFIs due to low transaction cost. Since the MFIs are collecting Aadhaar details from all customers, rollout of APBS may be faster.

"APBS from the MFI perspective also helps mitigate risk. The end user is only required to give her Aadhaar number. There is no need to give bank details, IFSC code or the passbook. MFIs can also do bulk lending using this platform. MFIs are asking for bank details which are not required now in APBS. Bank account validation and E-KYC will go hand in hand."

– A Technology Service Provider

Case Study: Disbursement directly to customers' bank accounts

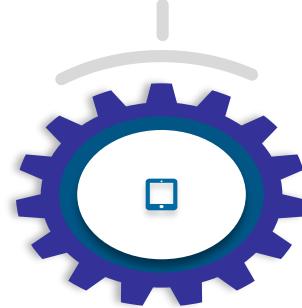
A multi-layer verification procedure is required to prevent errors and delays in disbursement; APBS can help simplify the process

An MFI based in North India has implemented cashless disbursement by directly depositing the amount into customer's bank account using NEFT platform. Currently, the MFI has established three layers to verify customers' bank a/c details.

MFI's As-Is Process

STEP 1

Loan Officer collects the customer documents and tallies the bank details with the original passbook



STEP 3

Branch Manager sends the documents at Loan Processing Centre for data entry



STEP 2

Branch Manager checks the bank details with the passbook copy along with other documents



STEP 4

The data entry team re-verifies the bank details with the passbook copy. Completes data entry upon confirmation.

Challenges in As-Is Process

1

Delays, multiple channels, and involvement of paper work

2

Risk of credit of loan proceeds to wrong beneficiary account

3

Expensive when compared to other available solutions

Alternative— Aadhaar Payments Bridge System (APBS)

1

Errors minimised with Aadhaar as the means for account verification

2

Lower cost in comparison to NEFT/IMPS

3

Removal of maker checker process for validation of bank account details

5.2 Repayment Models

Analysis of modes used for cash-lite repayment

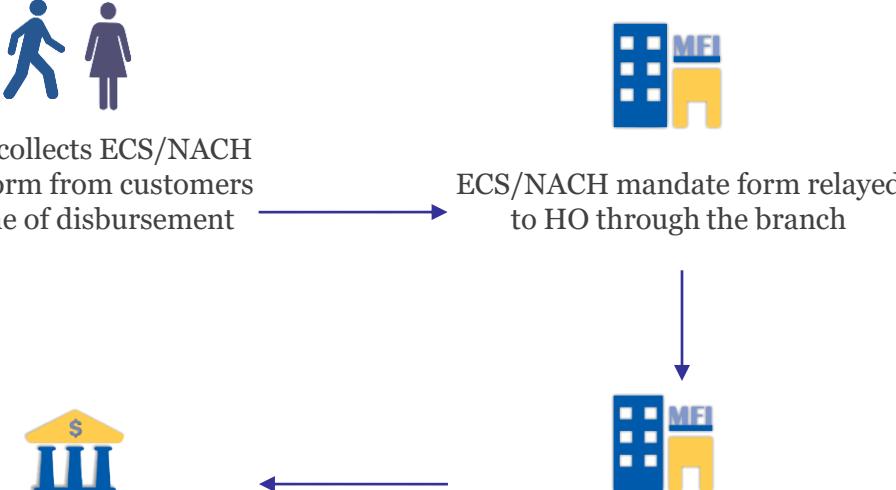
The choice of repayment modes will primarily be determined by the level of customer comfort with the technology

Mode	Pros	Cons	Remarks	Overall Rating
Cheque	1. Customers generally comfortable with cheques	1. High incidence of signature mismatch 2. Penalties and fines for customers in case of a cheque bounce 3. Hassle for MFIs to maintain post-dated cheques in safe custody	1. Suitable for customers who are accustomed to writing cheques 2. May also be preferred for high ticket size individual loan products	
ECS/NACH	1. Convenient for MFIs and customers as one-time consent for auto-debit is required	1. High incidence of signature mismatch 2. Penalties and fines for customers in case of ECS failure	1. Currently used for high ticket size individual loan products	
Mobile Wallet	1. No need for bank account 2. Increased convenience as transactions can be done at nearby agents	1. High dependence on functional agent networks 2. Mobile phone required for transactions 3. Initial reluctance from customers due to trust deficit and risk of fraud	1. Suitable for urban and young customers who are familiar with mobile-based transactions	
AEPS	1. Easier to adopt/understand for rural consumers 2. Low cost 3. Increased convenience as transactions can be done at nearby agents with micro-ATMs	1. High incidence of transaction errors 2. Seeding of Aadhaar with bank account required ¹ 3. Micro-ATMs required	1. Requires a functional agent network 2. If the MFIs choose to host the micro-ATMs, cash management will still be with MFIs	
Pre-paid Card	1. No need for bank account 2. Increased convenience as transactions can be done at nearby agents	1. High dependence on functional agent networks 2. Initial reluctance from customers due to trust deficit and risk of fraud	1. Suitable for customers who don't have a bank a/c	

¹ Seeding of Aadhaar to bank a/c is mandatory now

Assessment of repayment models – transfer to bank a/c through ECS/NACH

Repayment through bank a/c is suitable for customers who regularly transact through their bank accounts

Model Description	Assessment Rating			
	Cost to customer	Customer convenience	Cost to financial institution	Ease of implementation
<p>Field staff collects ECS/NACH mandate form from customers at the time of disbursement</p> <p>Customer maintains adequate balance in the bank account. On the due date, the loan installment amount gets auto-debited from customer account</p> 	 1. No direct cost to the customer 2. Indirect cost related to depositing funds in the bank account	 1. Providing ECS/NACH mandate 2. Tracking due dates, maintaining adequate balance in account	 1. Transaction cost 2. Cost of customer education	 1. Submission of ECS/NACH mandate form to be implemented 2. Customer education to inform them about maintaining adequate balance and avoiding penalty

- The model is suitable for high ticket size transactions as customers may find it a hassle to deposit cash through bank branch for small value transactions

to become the preferred mode for customers

Assessment of repayment models – agent assisted model (pre-paid card, wallet, AEPS)

The quality of agent network will determine the success of this model. The model is also crucial as customers need support to conduct transactions

Model Description	Assessment Rating			
	Cost to customer	Customer convenience	Cost to financial institution	Ease of implementation
 Field staff conducts centre meeting and directs customers to make repayment at the nearby agent	 Agents complete the transaction using mobile, POS, m-POS or micro-ATM as applicable	 Bank/BCNM receives payments and updates customer records	 1. No direct cost to the customer 2. Increased convenience of transacting via agent 3. Initial hassle of moving transaction to agent 3. Chance of agent's inability to process transactions	 1. Monitoring cost 2. Compensation for fraud 3. Cost of customer education and grievance redressal support
 MFI receives total repayment amount from the bank/BCNM along with the details of customers who made the repayment				1. Guiding customers to transact at agents 2. Process modification 3. Work with BCNM to identify suitable agents 4. Rigorous monitoring

- Key Takeaway
- The model requires significant efforts from the MFI to ensure that the customers are comfortable transacting with agents. The MFIs will need to work closely with the BCNM to ensure that the agent network is adequate across their operational areas and is functional
 - A lot of energy would need to be invested in changing behaviour of customers and field staff

Assessment of repayment models – MFI as agent

MFI as an agent model allows increased customer convenience; however the risk of managing cash still remains with the MFI

Model Description	Assessment Rating			
	Cost to customer	Customer convenience	Cost to financial institution	Ease of implementation
 <p>Field staff conducts centre meeting and directs customers to either make repayment at the branch or with him</p>  <p>MFI branch or field staff acting as agent completes the transaction using mobile, POS, m-POS or micro-ATM as applicable</p>  <p>MFI receives total repayment amount from the bank/BCNM along with details of customers who made the repayment</p>  <p>Bank/BCNM receives payments and updates customer records</p>	 <p>1. No direct cost to the customer</p>	 <p>1. Since there is no change in process, customers find it most convenient</p>	 <p>1. Cost of micro-ATMs/other infrastructure 2. Cost of training of staff 3. Cash management cost 4. Recurring cost to support transactions 5. Opportunity to earn fee income</p>	 <p>1. Setting up dedicated grievance redressal desk 2. Training of relevant staff 3. Customer education 4. Infrastructure development to support transactions</p>

Key Takeaway

- MFI as agent reduces risk of fraud and leads to increased convenience for customers
- The model entails investment of resources from the MFI
- Cash management and associated risks continue to remain with the MFI

Experience from pilot test of a few repayment models

Both AEPS and UPI offer distinct benefits, but the MFIs need to be mindful of their capacities as well as those of their customers

A few MFIs are piloting cash-lite models using AEPS and UPI modes of payment services. Based on our interaction with these MFIs, the following are the major challenges and benefits.

Aadhaar Enabled Payment System

Benefits

1. **Easy** to use, **safe** and **secure** payment platform to carry out transactions
2. **Eliminates the threat of fraud**, as it is based on Aadhaar number and finger-print (biometric) of the customer
3. Facilitates **inter-operability** across banks in safe and secured manner
4. Model enables financial institutions to allow repayments to their clients using the **BC network points through micro-ATMs**
5. Almost all banks are on Aadhaar platform
6. **Less efforts for customer literacy** when compared to other models

Customer level challenges

1. **Minimum balance** required in customer account
2. **Seeding of Aadhaar** number with bank account¹
3. **Assisted transactions**, so customer needs to travel to the nearest agent/FI branch to carry out transaction
4. **Possibility of transaction failure** due to biometric mismatch

UPI using USSD platform

Benefits

1. **Least cost** way of money transfer when compared to other available models
2. **Telco-agnostic** – accessible through common code
3. **Device agnostic** – Works across all phones (feature and smart)
4. **Pull and Push amount** can be requested from a certain account or paid into some other account.
5. **Self-initiated transaction**, which are easy to conduct

Customer level challenges

1. **Minimum balance** required in customer account
2. **Registration of Mobile** number with bank account
3. **Limited number of banks on the UPI platform** – Repayments through Cooperative banks is a challenge
4. **High level of hand-holding** and efforts required for customer literacy

6. Experience of MFIs in cash-lite implementation

6.1 Positive experiences in cash-lite implementation

Positive experience of MFIs

MFIs that have implemented cash-lite have observed benefits related to operational efficiency. Other benefits may take longer to materialise.

Positive impact on operational aspects

1. **Reduction in turnaround time** – MFIs have stated that cash-lite disbursement directly to customers' bank accounts has helped reduce TAT. Consequently, the staff time, earlier spent on cash handling, is being used to conduct more activities within the same time frame
2. **Reduction of risk** – MFIs stated that the automation of processes in cash-lite models has helped reduce the risk of errors and fraud in disbursement and repayment
3. **Reduction of reconciliation tasks** – Reconciliation data shared by TSPs helps reduce the burden of manual reconciliation and data entry on the part of field staff

Increased safety

1. **Reduced instances of theft** – As per the experts and MFIs, the adoption of cash-lite processes has helped reduce instances of theft at the level of both the branch as well as field staff
2. **Reduced risk of counterfeit currency** – The adoption of cash-lite repayment processes has reduced the incidence of receiving counterfeit currency

Other benefits

Add-on services for customers such as SMS, IVRS and utility bills payments helps to achieve

1. Increased **level of convenience** for customers
2. Promotion of **healthy repayment behaviour** of customers at low incremental costs
3. **Increased levels of empowerment** (perceived) for female beneficiaries when it comes to using pre-paid cards (due to the need for a pin to withdraw or deposit money)

Will cash-lite processes affect centre meetings?

The adoption of cash-lite may not make centre meetings redundant, however there may be a need to review their purpose and agenda.



“Centre meetings are important and their sanctity cannot be compromised. It is for the institutions to perhaps think, how they want to use the meetings [after the introduction of cash-lite processes]”

- A Senior MFI Practitioner

With cash-lite processes, the agenda of centre meetings may change but they will continue to remain important for microfinance operations

While the general belief is that the adoption of cash-lite disbursement and repayments will bring down the centre meeting time and in some cases even reduce their frequency, the importance of a functional centre meeting cannot be undermined. They are critical for the business model of MFIs for several reasons:

- Provide an opportunity to stay in touch with customers, understand their behavior, and also keep them updated about the organisations' policies
- Enforce discipline among borrowers that in turn ensures healthy portfolio
- Provide a platform for customers to share feedback, seek clarification or response to queries, and raise issues and concerns

Centre meetings may seem to be onerous for customers, but not all of them want to get rid of them

Rekha¹ is a customer of a large MFI in South India. She has taken a group loan from the MFI and is currently in the third loan cycle. She is a salaried employee and prefers to receive the loan amount in her bank account. She thinks it is safe and convenient. However, for repayments, she still prefers group repayments because she feels more secure seeing everyone make the repayments in cash. She is convinced that the group meetings enforce repayment discipline, which may be lost if the physical act of cash exchange is removed.

¹ Name changed

6.2 Challenges in cash-lite implementation

Experience related to external ecosystem

The ecosystem is rapidly evolving and is conducive for cash-lite disbursement, but some aspects need to fall in place to support cash-lite repayments.

Regulatory and policy support

Recruitment and on-boarding of BCs – Lack of certification and registration of BCs by the RBI has adversely affected on-boarding of BCs critical for the branchless banking channel to run effectively.

Infrastructure and connectivity

% of MFIs reporting high importance

Internet Connectivity 53% 

Physical Connectivity 47% 

Weak internet connectivity in rural areas – This, along with non-availability of telecom service in certain pockets, has been perceived as a significant impediment in the adoption of cash-lite models. It results in higher transaction failure rate, leading to decreasing customer and staff satisfaction. Lack of technology that could work offline compounds the problem.

Cash-intensive ecosystem

% of MFIs reporting high importance

Model and technology unsuitable for the customer 58% 

High dependence on cash for customer – Almost all MFIs, experts and TSPs opined that for a typical MFI customer, both income and expenditure avenues are in cash. The lack of value proposition of 'non-cash' coupled with the low levels of usage of bank accounts, creates hassle for customers to do a 'cash-in' necessary for cash-lite transactions.

Sector experts are of the opinion that infrastructure related issues in general and connectivity related issues in particular shall be resolved in the coming years due to the concerted efforts of the government. The introduction of differentiated banks such as Small Finance Banks and Payments Banks are also likely to address the financial sector infrastructure gaps.

"Infrastructure is not yet completely developed. The number of POS machines has grown from roughly 10,10,000 in March 2015 to 25,70,000 in April 2016. The scale at which these machines have entered/been distributed in the market seems unrealistic (in terms of its usage). Infrastructure is a structure of parties that are involved in building it. It can be built through public willingness and private investment. Post the coming 6 months, this concern is likely to be negated."
– Sector Expert

Challenges faced by MFIs while implementing cash-lite models (1/2)

As benefits of cash-lite materialise and gather scale, the existing implementation challenges are likely to get addressed.

High implementation cost

% of MFIs reporting high importance

Cost 50%

Status of receiving financial support

53% 25% 22%

Received Planning to receive Not received

High Opex – MFIs are ready to bear Capex for piloting a cash-lite model but are concerned about the Opex. Since opex for disbursements is low and it has a positive impact on cash related risk, it is being piloted/implemented by MFIs (including the smaller ones). In contrast, operational costs incurred in cash-lite models for repayment are much higher as compared to those for disbursement. As per sector experts, cost of technology is likely to reduce once an increased number of firms contribute to the supply side.

According to TSPs, the cost incurred by MFIs is a function of their scale of operations and the level of sophistication of their existing systems. For MFIs that operate in 2-3 districts with less than 100 staff members, having a completely digital system is not likely to be economically feasible. If an MFI already has a functional CBS, transitioning to cash-lite would require TSPs to provide the required API.

Institutions hire qualified resources to implement and manage technology/cash-lite deployment. Recently, various technology providers and even some banks are offering end to end solution for cash-lite adoption with limited capital investment.

“Any model that has charges up to 0.5% per transaction is worth it because then there are overall benefits”

– Senior Manager of a prominent MFI

Cost items for cash-lite implementation

Capex Items

1. Core Banking System installation and middle ware cost (including cost of customisation and integration)
2. Hardware cost – backend (server and data storage in case the MFI decided to have an in-house system)
3. Hardware cost – frontend (POS, mobile phone, tablet, etc.)
4. Initial setup costs including legal, consulting etc.

Opex Items

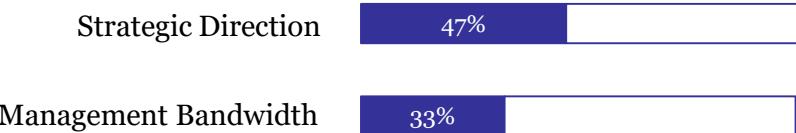
1. Annual maintenance cost
2. Salaries
3. Training cost
4. Office and administrative overheads
5. Technology licenses, fee and maintenance
6. Marketing and promotion
7. Customer support relate expenses
8. Transactions costs
9. Liquidity management cost (where applicable)

Challenges faced by MFIs while implementing cash-lite models (2/2)

A clear strategic direction, commitment of the senior management and willingness to adopt new technologies help drive cash-lite adoption.

Institutional Strategy and Readiness

% of MFIs reporting high importance



Proportion of MFIs that have a dedicated team



Push for cash-lite is primarily driven by SMT. A few MFIs have been able to scale up their cash-lite interventions primarily due to the positive intent of their SMT. A few MFIs have also set up dedicated project teams to explore cash-lite models prevalent in the market, signaling their intention to adopt cash-lite. Lack of management bandwidth often causes delay in implementation.

Technological Readiness

Most MFIs use legacy systems to store information. As per TSPs, the **adoption of new technology was perceived to be a complicated and challenging process for the MFIs**. One of the TSPs suggested that it would be more beneficial for the MFI to outsource the technology and allow its in-house IT teams to work on aspects of business intelligence, support and strategy modeling. Outsourcing of technology would also help the MFI to access regular system updates and focus its attention on core business.

Low capacity of staff in small MFIs poses a challenge when such MFIs are not able to articulate their business and technology requirements well enough to the TSPs, which leads to cost and over-runs.



Challenges faced by the end customers

Typical MFI customer would find the transition to cash-lite challenging, but efforts to create value and provide ongoing support would smoothen transition.

Low level of understanding of cash-lite means

% of MFIs reporting high importance on low understanding/awareness on cash-lite models

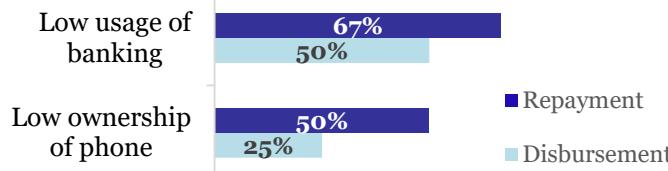


Inherent biases and lack of support – Adoption of cash-lite payment methods by rural and low-income customers is constrained due to lack of adequate hand holding support at different stages of the learning curve. The inherent biases and fear of committing errors also prevent such people from trying new technology.

"One cannot go cash-lite immediately. The borrowers do not know how to do banking. They need assisted banking. Once a few people start with banking in an area, they are considered elite and people in the area start following them."

Low ownership levels of key collaterals

% of MFIs reporting high importance

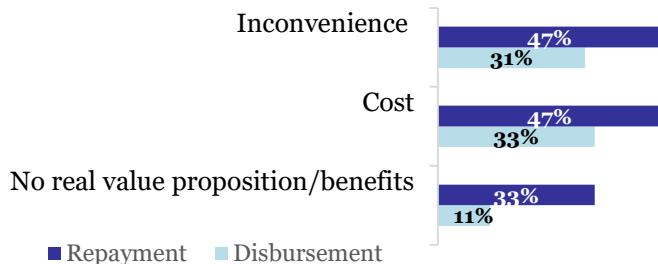


Low ownership of bank accounts and mobile phones – Traditionally, MFI customers do not use bank a/c extensively due to the perception that their savings are insignificant to keep in a bank account and mistreatment by bank staff. Also, mobile phones are generally owned by spouse and children of the borrower, thereby making mobile based transactions difficult.

- Senior Manager, MFI

Lack of customer value proposition

% of MFIs reporting high importance



Lack of perceived and real value for customers – MFIs believe that the current cash-lite models are costly and inconvenient for the customers, especially repayment models. Furthermore, MFIs also believe that customers currently do not have any perceived or real value proposition to adopt cash-lite.

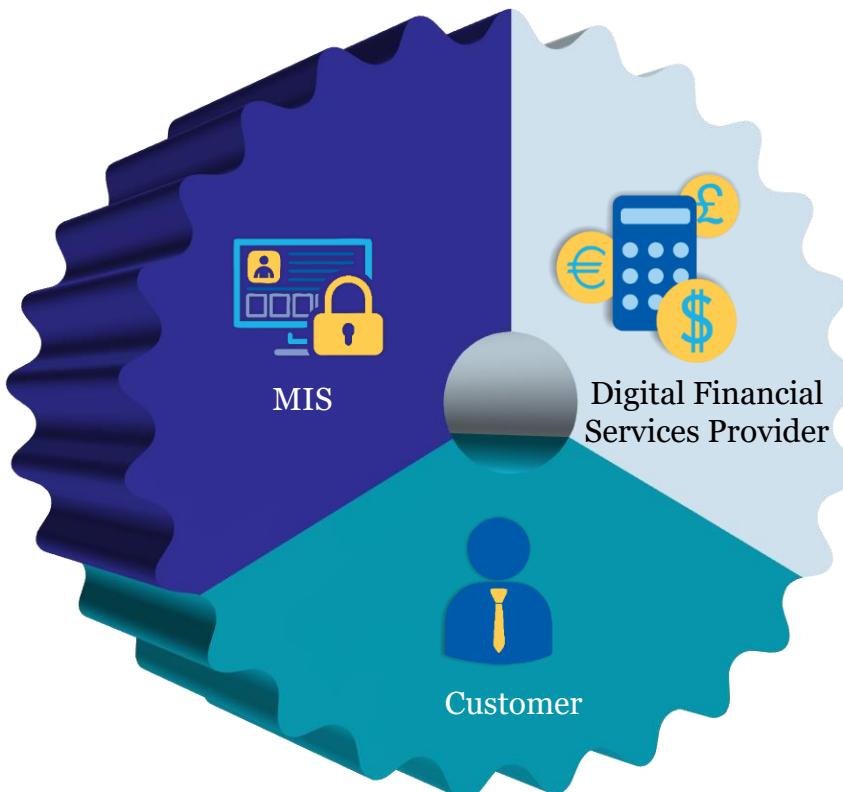
Case Study: Adoption of Mobile Financial Services – An MFI's Experience

Context

One of the large MFIs in Bangladesh was facing challenges such as low operational efficiency, consumption of staff-time in cumbersome documentation process, and low outreach. To address these challenges and provide access to affordable digital financial services to its customers, the MFI partnered with a leading mobile financial services provider of the country to pilot test cash-lite deposit, withdrawal and loan repayment facility. The initial results of the pilot suggest that there are numerous challenges across different stakeholders that need to be addressed to smoothen adoption.

MIS Level Challenges

- Frequent server downtime resulting in increased TAT for data uploading
- Systemic issues in SQL database management system causing loss of data
- Limited capability of the current MIS vendor
- System's integration capabilities with other third party software is uncertain



Digital Financial Service Provider Level Challenges

- Lack of active agents in the operational areas
- Limited awareness of agent points.
- Lack of liquidity at agent outlets

Customer Level Challenges

- Often require assistance of MFI field staff to carry out transactions
- Hesitant to transact because of lack of agents and concerns regarding safety and security of their money

7. Way forward

Recommendations

1

Microfinance Institutions

1. Articulate a strategic view of going cash-lite

Cash-lite adoption is not only about **operational efficiency** and **risk mitigation**. It can create an enabling platform to **diversify product offering**, **target new customer segments** and even **modify the operating model**. To arrive at a strategic view, it is extremely important for the SMT to look at cash-lite holistically keeping in mind the current and future positioning of the MFI.

It is therefore recommended that the management:

- **Clearly identifies the strategic imperatives for going cash-lite and looks at it holistically**, at the onset
- **Simplifies and communicates the objectives** across the organisation; **Charts a clear implementation roadmap**
- **Measures progress** on the stated objectives, and takes course correction if required

One of the experts suggested that the SMT of the MFIs look at the question of adopting cash-lite strategically. They must think through the intervention and **deliberate on some fundamental questions**:

1. **Who are you?**
2. **Where do you want to be?**
3. **How can digital help you get there (considering the larger environment)?**
4. **What do you need to do about it?**
 1. Now?
 2. 2 years from now?
 3. 5 years from now?

Recommendations

1

Microfinance Institutions

2. Define clear value proposition for customers

The success of any cash-lite intervention depends on the **response of customers**. If the customer experience is poor, he/she is not only likely to move away from the MFI but also from using digital payment solutions in the future. Thus, the value proposition for customers to go cash-lite must be clearly articulated and then communicated across the institution and to the customers.

Identifying value proposition will require MFIs to gather **customer insights**, identify **capacity/capability gaps** and collect **regular feedback**.

Possible aspects that customers value are:

- Convenient products and processes (reduced TAT, simple documentation, easy access to loan proceeds)
- Access to new and appropriate products
- Reduced direct and indirect costs
- Access to banking services (full financial inclusion)

Cash-lite processes create possibilities to offer new products that may enhance relationship with current and prospective customers

Case #1: Nano-credit

Using a combination of technologies such as Aadhaar based E-KYC and wallet/account based payments, MFIs can potentially offer nano-credit to a completely new customer segment. For example, a rickshaw puller has a break down and requires a loan. He visits the nearest agent location, shares Aadhaar details and immediately receives a flexi-term nano-loan of INR 500-600.

Case #2: Small ticket savings

As MFIs digitise their operations, the possibility of offering diversified products increases. For example, if an MFI sets up a distribution network with support from bank/BC agents, it can offer small ticket savings to their customers. The MFI in such a case will have a strategic advantage over other MFIs that offer only credit products. MFIs currently have not been able to support small ticket size transactions primarily because of the challenges with cash management.

1

Microfinance Institutions

3. Identify customer segments for cash-lite

Identify different customer segments within the MFI customers, based on their **readiness to transition to cash-lite**. Such segmentation may be based on **geography, urban/rural, age and/or socio-economic profile**.

For instance, it would be easier for salaried borrowers, or segments like metro cab drivers who operate with mobile wallets, to transition to cash-lite.

Potential aspects to look at to identify suitable customer segments:

- Regular income credited to a bank account
- Previous experience with using digital payments/banking technology such as ATMs and/or agents
- Located preferably in urban and semi-urban areas with good telecommunication and banking infrastructure

Salaried as potential early adopters for digital payments¹

Malati (33) is a housewife, a graduate and a mother of two. Her husband is an employee at the municipal corporation, and his salary sustains the household expenses like food, education of her kids, and loan EMI.

She follows the news and seeing many stickers on shops, she and her husband **downloaded Paytm** on their phone and successfully recharged their DTH connection on new year's eve. Owing to many stories about fraudulent practices, she is wary of sharing her account details. She understands the ease and convenience of digital financial solutions and is eager to try more. However, **lack of information** and **discouraging word of mouth** are inhibitors.



Malati Sinha,
Housewife, West Bengal

"We should not become laggards. Of course there will be teething issues in digital transactions. If I make food badly one day, does that mean that I will stop cooking?!"

1

Microfinance Institutions

4. Leverage effective partnerships

Adoption of cash-lite requires MFIs to partner with a range of institutions such as technology service providers, banks and BCNMs, and payments solution providers. Identification of right partners ensures that the MFI can focus on their core business, that is microfinance.

Potential attributes of the ‘right’ partner –

- Compatibility in **business objectives**
- Compatibility in **technological aspects** including platforms and systems
- **Technical** and **operational capability**
- Ability to implement and **manage desired scale**
- **Historic record** of capabilities
- Absence of **competing interest or conflicts** for customers or product/service line
- **Commercial sustainability** for all parties in partnership

One of the TSPs suggested that the partnership with MFIs should bring complementary skills and expertise, especially in the technology space where “TSPs offer standardised technological solutions, while the in-house IT team [of the MFI] drives business intelligence (*How to enhance customer delight? How to increase sales? How to lower costs?*) and feed such information for technology upgrade.”

Recommendations

1

Microfinance Institutions

5. Choose appropriate technology and payment solutions

The selection of appropriate technology solutions that are suitable to the context of the MFIs and their customers is critical. Such selection should be futuristic and should aim to leverage efficiencies rather than propagate the inefficiencies of the market.

Potential parameters for technology selection include:

- **Technological infrastructure** of the MFI, its branch locations and operational areas
- **Capacities of** field and branch **staff**
- **Capability of end customers** and their comfort with technology (literacy, numeracy)
- **Cost** – direct and indirect
- **Capacity of the proposed system** to interact with the overall banking system
- **Customisability** of the solution
- Ability to **integrate** with multiple **third party systems**



“Business has to drive or dictate the [technology] solution. Be ready [that is TSPs] for customers to give you feedback. So your system/ solution should not be so hard wired that course correction is not possible.”

– A Technology Service Provider

Recommendations

1

Microfinance Institutions

6. Establish project management protocols

Establish following project management protocols to ensure that the pilot test and implementation is well planned and not ad-hoc –

1. Nominate Project Champion

- Overall project responsibility
- Guidance from steering committee/board

2. Appoint Project Managers

- Within MFI and Partner/Vendor
- Liaise with internal and external stakeholders, monitor progress, report to SMT

3. Establish a multi-disciplinary project management team and define terms of reference

- Information and process requirement analysis
- Detailed implementation plan – roles, responsibilities and timelines

4. Establish protocols for project implementation

- Project governance, change management and escalation
- Project Champion and Core Implementation team meetings
- Check-in with CEO/ED

“A change is needed in the way the business is run. Systemic changes – not one person driven, but by a group of people, or ideally processes and systems driven.”

– A Sector Expert

Recommendations

1

Microfinance Institutions

7. Document processes and regularly train staff

Since adoption of cash-lite entails modification of existing front-end and back-end processes, the MFI needs to document these revised processes and train their staff on revised systems.

During the initial stage, such training to be followed by **rigorous monitoring** to ensure compliance.

A **feedback mechanism** to be established to collect inputs from the field (including field staff and customers); Findings to guide product and process modification as required.

Refresher trainings to be conducted at regular intervals.

Design appropriate **staff incentives** to support rollout of cash-lite.

8. Define internal and external communication strategy

An internal and external communication strategy is required for smooth implementation of cash-lite adoption.

Internal communication strategy to focus on:

- Cascading the **vision** of the institution for cash-lite
- Explaining the **role of the staff** in achieving the vision
- Generating **buy-in** and **allaying fears** of staff regarding technology and cash-lite adoption
- **Motivating** field staff to handhold customers to adopt cash-lite

External communication strategy to focus on:

- Communicating **value proposition** for customers in simple terms
- **Educating customers** on cash-lite processes including risks; this requires significant investment of resources
- Creating awareness among other eco-system stakeholders about the benefits of cash-lite

2

Donors and Investors

1. Need to stay patient

Investors generally tend to measure the success of their investment based on the growth of portfolio, profitability of the MFIs and consequently their return on investments. However, the benefits from cash-lite often take time and may not be tangible initially.

Thus, the investors may need to be patient during the period of transition and leverage their experience to support MFIs to undergo a smooth transition. This entails guiding management to:

- **Make a blue print** of the business proposition for cash-lite
- Establish a **strong team** to lead the transformation
- Set up **success parameters** and measure progress
- **Identify suitable partners** and technology to facilitate cash-lite adoption by leveraging their network

“Donors tend to be not patient enough to help with the transformation which could take 3-5 years. They need to:

1. Think through the strategy
2. Communicate it well
3. Help the FI find the right technology vendors
4. Support in the change management by making it quick and agile

Donors need to help MFIs expand product portfolios in a client centric manner. There needs to be a win-win-win for everyone...”

– Sector Expert

2

Donors and Investors

2. Invest in ecosystem

The lack of a conducive ecosystem (in terms of infrastructure and technology) is a significant deterrent towards the adoption of cash-lite models by MFIs. Donors may, therefore, need to channelise their funding resources for ecosystem development such as **development and testing of appropriate technologies, capacity building** of MFIs, **knowledge development** and dissemination, development of **financial services distribution** including agent network management and merchant acquisitions.

CSR teams (especially of MFIs) and not for profit organisations can make concerted efforts towards **educating consumers** in using new cost efficient payment solutions.

The absence of a tried and tested model for cash-lite necessitates the need to pilot test different models and payments solutions. Thus, donors and investors may provide resources and guidance to MFIs for such pilots.

“In case there are challenges with biometric devices, iris can be one of the best solutions available. A biometric solution is available in INR 2,000-5,000, whereas the Iris scanner is almost three times the cost of a biometric device.

Investors, as a community, can push for using the Iris scanner for authentication purposes since there is higher success rate even for patients with cataract...”

– Sector Expert

Recommendations

3

MFIN

1. Support Pilot Testing

With the identification of new market segments and with the advent of new technology and models that support cash-lite, it has become increasingly important for MFIs to find cost efficient cash-lite models suited to their scale and scope of operations.

Given the current financial constraints faced by MFIs when it comes to experimenting with new technology and models, it has become imperative for an institution like **MFIN** to:

- a. **support pilot testing** of the same **in select MFIs**
- b. **document and disseminate learnings from MFIs** with the larger industry

2. Liaison with policy makers

MFIs have stated common challenges around implementation of cash-lite models. MFIN, as the collective voice of its member institutions, should **communicate** these **challenges to the relevant stakeholders** (including policy makers) and influence them for necessary policy changes.

“MFIs need a success story...It has to be a collaborative effort... The Government, MFIN and Department of Finance should create a pool and at least run a pilot... They should build a critical model and show it to the world...”

– A Sector Expert

Recommendations

4

Policymakers

1. Address structural issues

Current structural concerns with respect to Business Correspondents has created a space for the BCs to not give all the information needed by the customer. Typical concerns with the BC model are –

1. Lack of formalised trainings for them
2. Lack of certification
3. Lack of a code of conduct

Recommendations towards this include –

1. Making all BCs **white label BCs** and calling them **'retailers of financial services'**
2. **Certification and registry of BCs by RBI**
3. Allowing **full interoperability** of BCs to support white labelling of BCs

2. Continue digital payments promotion

Implement policy level changes proposed by Niti Ayog and others to promote digital payments

“The cash-lite movement is likely to be catalysed by ensuring that the distribution channel is sufficiently trained. The success of the M-PESA model in Kenya can be attributed to the fact that the agents were trained every year for 9 years...”

– A Sector Expert

“Despite the account and the Rupay cards, the poor consumer still has to reach a BC to withdraw money. It is important to promote the use case for digital/re-define the concept to the consumer to be able to encourage uptake of cash-lite/cashless. For instance, for consumers that have accounts through the Jan Dhan Yojna, the cash-lite process can be further strengthened by ensuring that the PDS shops that these consumers access also have POS machines- which would allow for cash-lite transactions.

– A Sector Expert

Recommendations

4

Policymakers

3. Continue to promote digital payments¹

1. Get the unbanked populace to open bank accounts

1. PSU banks to adopt villages/districts
2. Incentive schemes for people who open bank accounts and deposit money with Small Finance Bank and Payments Banks
3. Allow opening of banks accounts at outlets of MNOs, supermarkets that have presence in semi-urban and rural areas through e-KYC
4. Incentivise NGOs to spread awareness about use of digital banking including security aspect and overall financial literacy

2. Accelerate the linking of Aadhaar to bank account

1. Government to sell fingerprint dongles for feature phones to families at subsidised rates
2. Allow customers to register Aadhaar to bank account by going to any bank or their correspondents or ATMs
3. Announce special non-monetary incentives such as free lamination of Aadhaar or other document or free advice on loans or awareness about government schemes

3. Promote digital payments in un-organised and semi-organised industry

1. Improve USSD/SMS banking apps user interface
2. Organise hackathons to create new apps for feature phones
3. Partner with NGOs/Gram Panchayats/post offices to familiarise users first with simpler features such as balance enquiry and then to fund transfer
4. Gram Panchayats to help standardise a single ecosystem for the village, as opposed to creating confusion with multiple modes being pushed to the users

4. Target specific sections/class of workers in urban areas

1. Taxi/rickshaw unions to run campaigns for feature phone based banking apps on weekly basis including education on USSD apps or other simpler apps
2. Expedite electronic toll collection
3. Merchant education drives to simplify and standardize payment methods

8. Annexure

List of MFIs who filled up the online survey and provided operational information for Q4 FY 2016-17 (1/2)

S. No.	Institution	Survey	Operational Data
1	Agora Microfinance India Ltd.	Yes	Yes
2	Arohan Financial Services Pvt. Ltd.	Yes	Yes
3	Asirvad Microfinance Limited	Yes	Yes
4	Belstar investment and Finance Pvt. Ltd.	Yes	Yes
5	Bharat Financial Inclusion Ltd.	Yes	Yes
6	BSS MFI	Yes	No
7	Disha Microfin Pvt. Ltd.	Yes	Yes
8	ESAF Small Finance Bank	Yes	Yes
9	Fusion Microfinance	Yes	No
10	Grameen Koota Financial Services Pvt. Ltd.	Yes	Yes
11	Hindusthan Microfinance Pvt. Ltd. (HMPL)	No	Yes
12	Intrepid Finance And Leasing Private Limited	Yes	Yes
13	Jagaran Microfin Pvt. Ltd.	Yes	Yes
14	Janalakshmi Financial Services Ltd.	Yes	Yes
15	Light Microfinance Pvt. Ltd.	Yes	Yes
16	M Power Micro Finance Pvt. Ltd.	No	Yes
17	Midland Microfin Ltd.	Yes	No
18	Muthoot Fincorp Ltd.	Yes	No
19	Namra Finance Ltd.	Yes	No
20	New Opportunity consultancy Pvt. Ltd.	Yes	No

List of MFIs who filled up the online survey and provided operational information for Q4 FY 2016-17 (1/2)

S. No.	Institution	Survey	Operational Data
21	Nirantara FinAccess Pvt. Ltd	Yes	No
22	Pahal Financial Services Pvt. Ltd.	Yes	Yes
23	RGVN (North East) Microfinance Ltd.	Yes	Yes
24	Saija Finance Private Ltd.	Yes	Yes
25	Samasta Microfinance Ltd.	Yes	No
26	Sambandh Finserve Pvt. Ltd.	Yes	Yes
27	Satin Creditcare Network Ltd.	Yes	No
28	Shikhar Microfinance Pvt. Ltd.	Yes	Yes
29	Sonata Finance Pvt. Ltd.	Yes	Yes
30	Spandana Sphoorty Financial Ltd.	Yes	Yes
31	Suryoday Micro Finance Pvt Ltd.	Yes	Yes
32	Svasti Microfinance Private Ltd.	Yes	No
33	Svatantra Microfinance Ltd.	Yes	Yes
34	Ujjivan Financial Services Ltd.	No	Yes
35	Unnaco Financial Services Pvt. Ltd.	Yes	Yes
36	Unnati Microfin	Yes	No
37	Utkarsh Small Finance Bank	Yes	Yes
38	Varam Capital Pvt. Ltd.	Yes	Yes
39	Village Financial Services Pvt. Ltd.	Yes	Yes

List of individuals interviewed for the study (1/2)

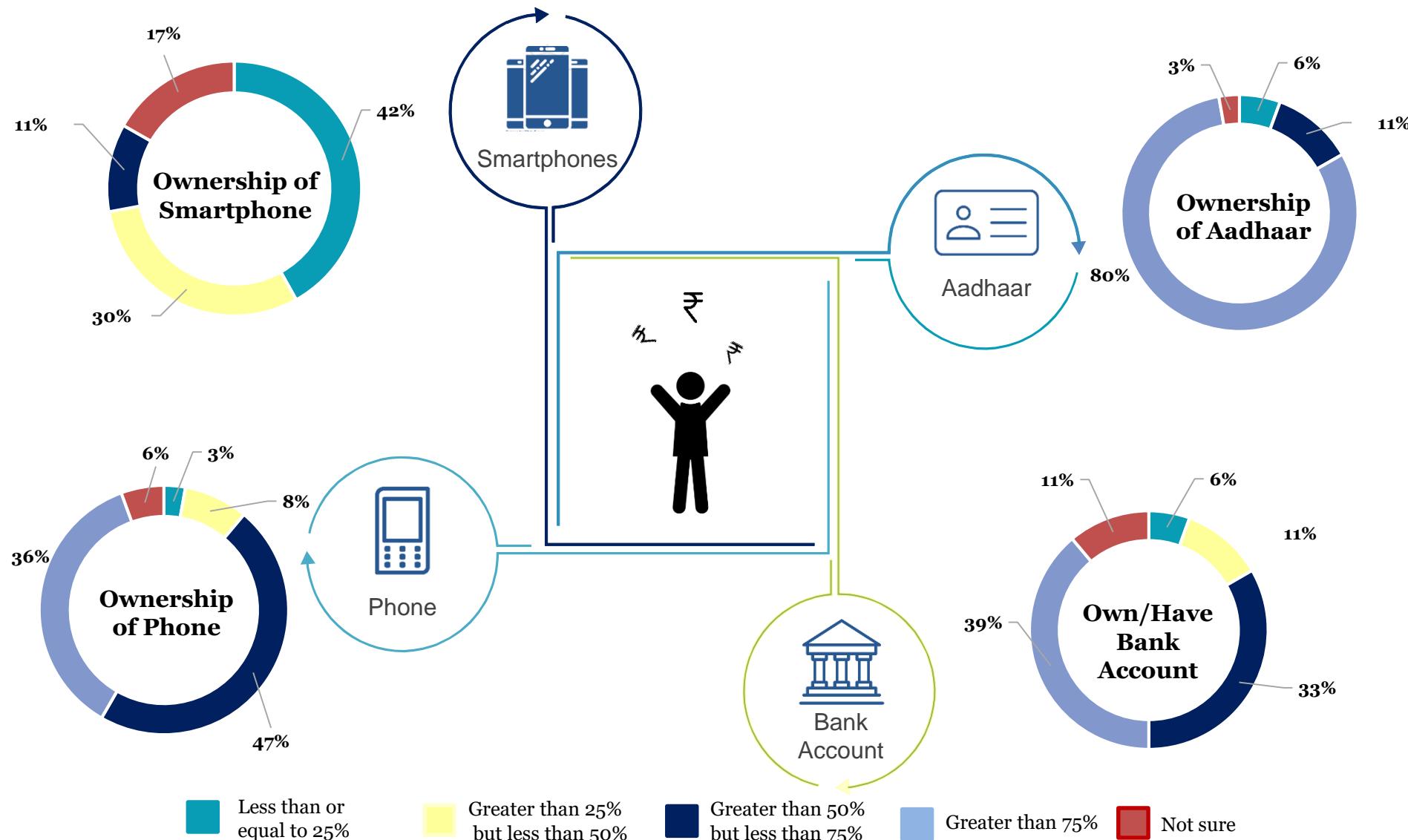
S. No.	Name	Designation	Institution	S. No.	Name	Designation	Institution
1	Mr. Sandeep Shah	Senior Manager (Financial Sector)	Unique Identification Authority of India	15	Mr. Deepak Bhatia	GM, Business Development and Marketing	ITZ Cash
2	Dr. Anand Shrivastava	Chairman	Banking Correspondents Federation of India	16	Mr. Rajpal Duggal	Head Group Strategy & Corporate Planning	Oxygen
3	Ms. Ratna Vishwanathan	Chief Executive Officer	MFIN	17	Mr. Shakti Saran	Associate Director	IBM
4	Mr. Manoj Sharma	Director	MicroSave	18	Mr. Ashutosh Pande	Executive Vice President	Nucleus Software/Payse
5	Mr. Abhishant Pant#	Director	Visa	19	Mr. Mohit Bagla	Regional Sales Manager	I-Exceed
6	Mr. Alok Misra	Professor	Management Development Institute, Gurugram	20	Ms. Shikha Thaman	Senior Manager, Alliances	Paytm
7	Prof. M.S. Sriram	Professor	Indian Institute of Management, Bangalore	21	Mr. Shailesh Pandey	Executive Vice President	FINO
8	Ms. Chandini Ohri	Ex – Chief Executive Officer	Grameen Foundation, India	22	Mr. Abhishek Sinha	Co-Founder and CEO	EKO
9	Mr. Krishna Thacker	Director, Financial Empowerment	MetLife Foundation	23	Mr. Ramaswami Venkatachalam	MD	FIS Global
10	Mr. Varun Saini	Program Officer	Michael and Susan Dell Foundation	24	Sahil Mehta	Vice President – Corporate Finance	Svantantra Microfin Pvt. Ltd.
11	Mr. Balaji Adivishnu	Head- Aadhar Business Services Karvy Data Management Services Limited	Independent consultant				
13	Mr. Prakash Kumar	CGM	SIDBI				
14	Mr. Ratnakar V	Associate Vice President	NPCI				

*In his personal capacity and not as a spokesperson of UIDAI
In his personal capacity and not as representative of Visa

List of individuals interviewed for the study (2/2)

S.No.	Name	Designation	Institution
25	Mr. Shantanu Mukherjee	Chief Innovations and Strategy Officer	Janalakshmi Financial Services Pvt. Ltd.
26	Mr. Pranav Prakash	Senior Manager	Satin Creditcare Network Ltd.
27	Mr. Avishesh Sarkar	Head Credit	Satya MicroCapital Ltd.
28	Mr. Balaji Parthasarathi	IT Head	Ujjivan Small Finance Bank
29	Mr. Mahalingam H	Chief Technology Officer	Equitas Small Finance Bank
30	Mr. Anup Kumar Singh	Chief Executive Officer & Managing Director	Sonata Financial Services Pvt. Ltd.
31	Mr. R Baskar Babu	Chief Executive Officer	Suryoday Small Finance Bank
32	Mr. Anant J. Natu	Associate Vice President	Arohan Financial Services Pvt. Ltd.
33	Ms. Meenal Patole	Chief Executive Officer	Agora Microfinance India Ltd.
34	Mr. Kunal Mehta	Head, Inclusive Finance Institutions	Ratnakar Bank Ltd.

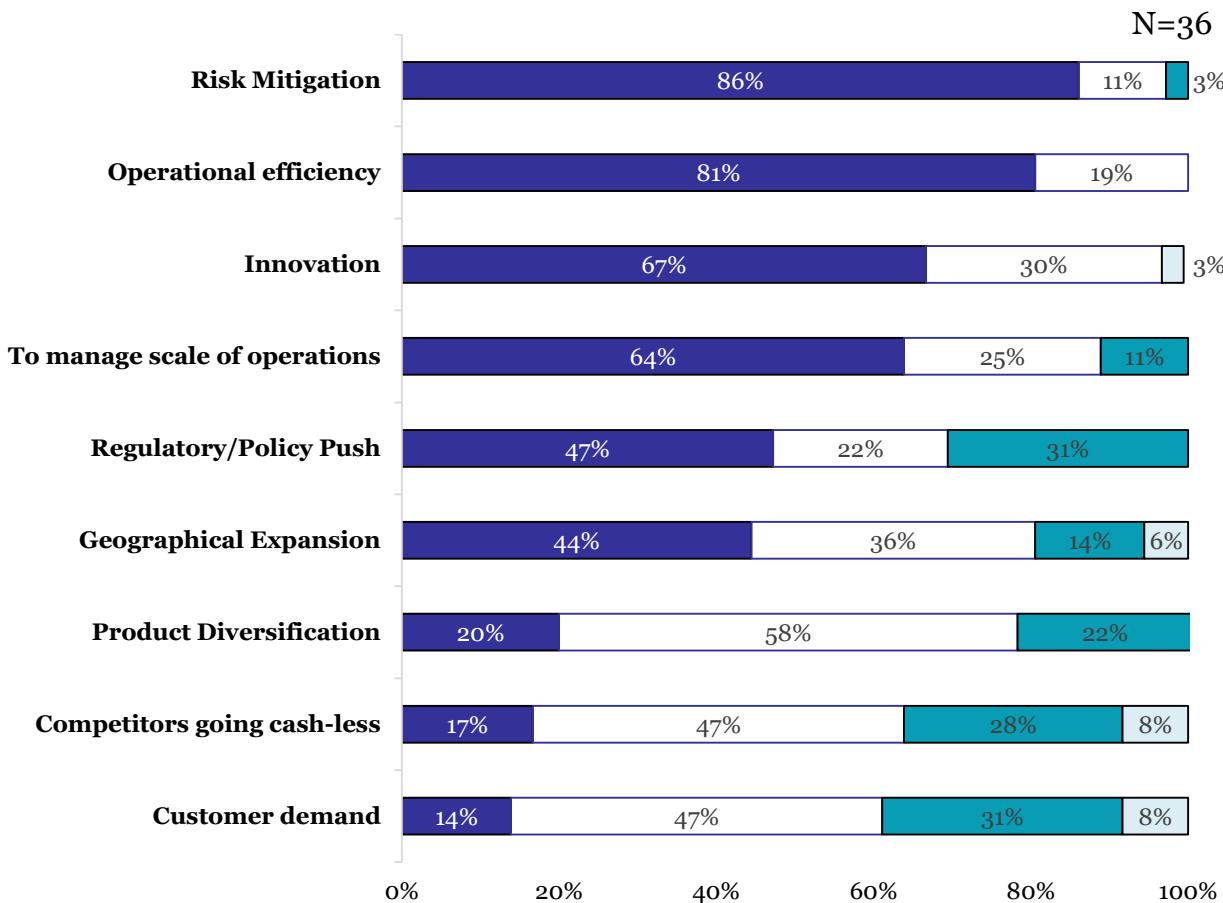
Perceived Characteristics of Borrowers (for sampled MFIs)*



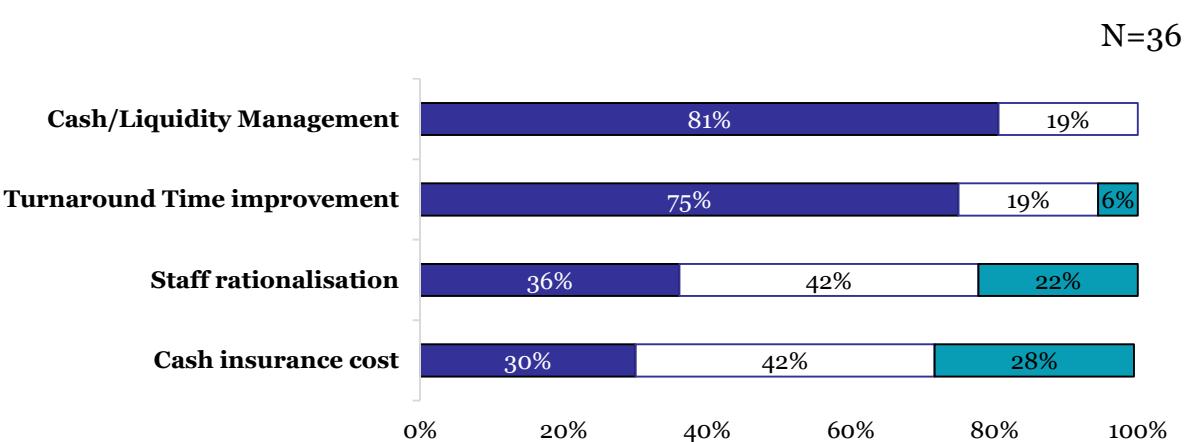
* The questions in the quantitative survey asked MFIs to estimate the proportion of their borrowers that had an Aadhaar, their own bank account, any phone in general and a smartphone in specific. It is important to note that there is a high chance that these figures are mostly guesstimates made by the respondent are not based on a scientific survey conducted by the institutions.

Rationale and benefits of going cash-lite as perceived by financial institutions

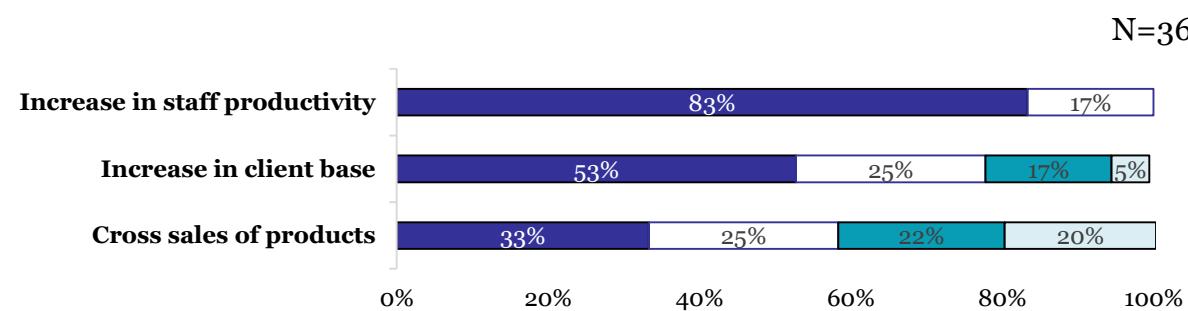
Rationale for going cash-lite



Cost/Expenditure based benefits for going cash-lite



Revenue related benefits for going cash-lite



High Importance

Medium Importance

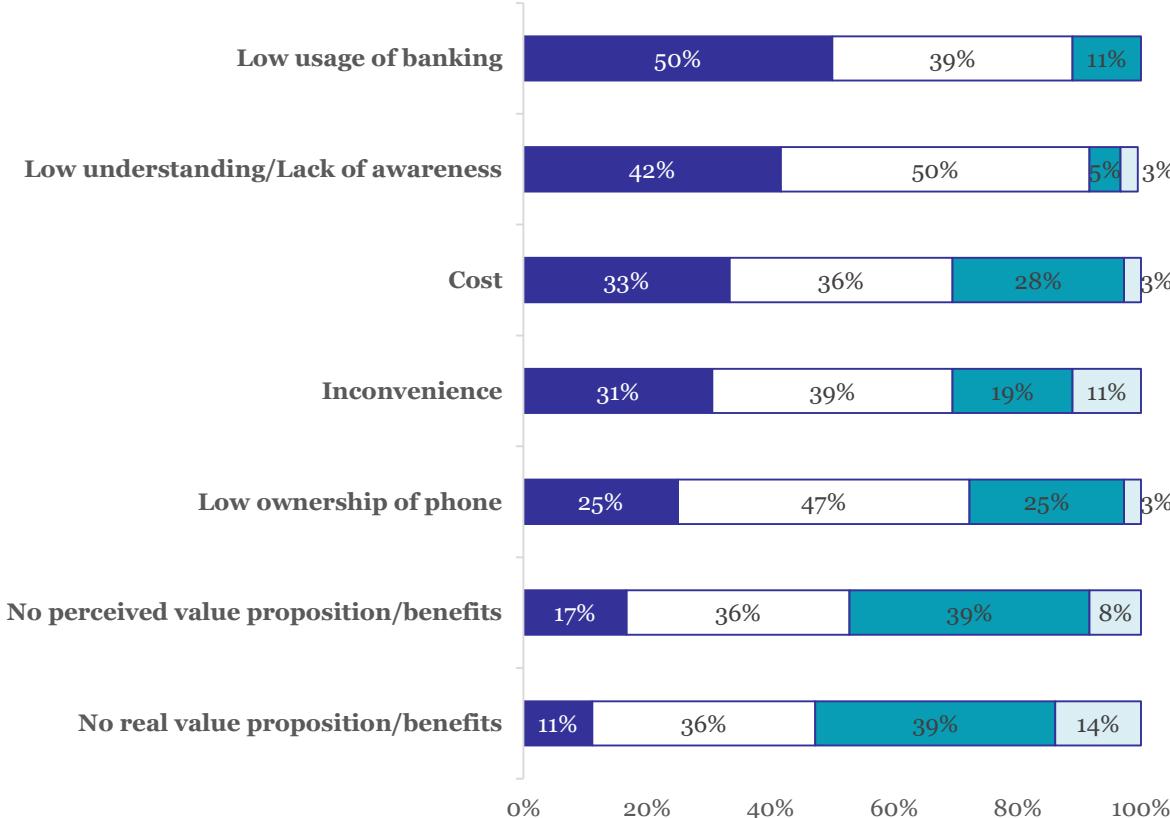
Low Importance

Not Important

Perceived challenges at the borrower level with respect to going cash-lite

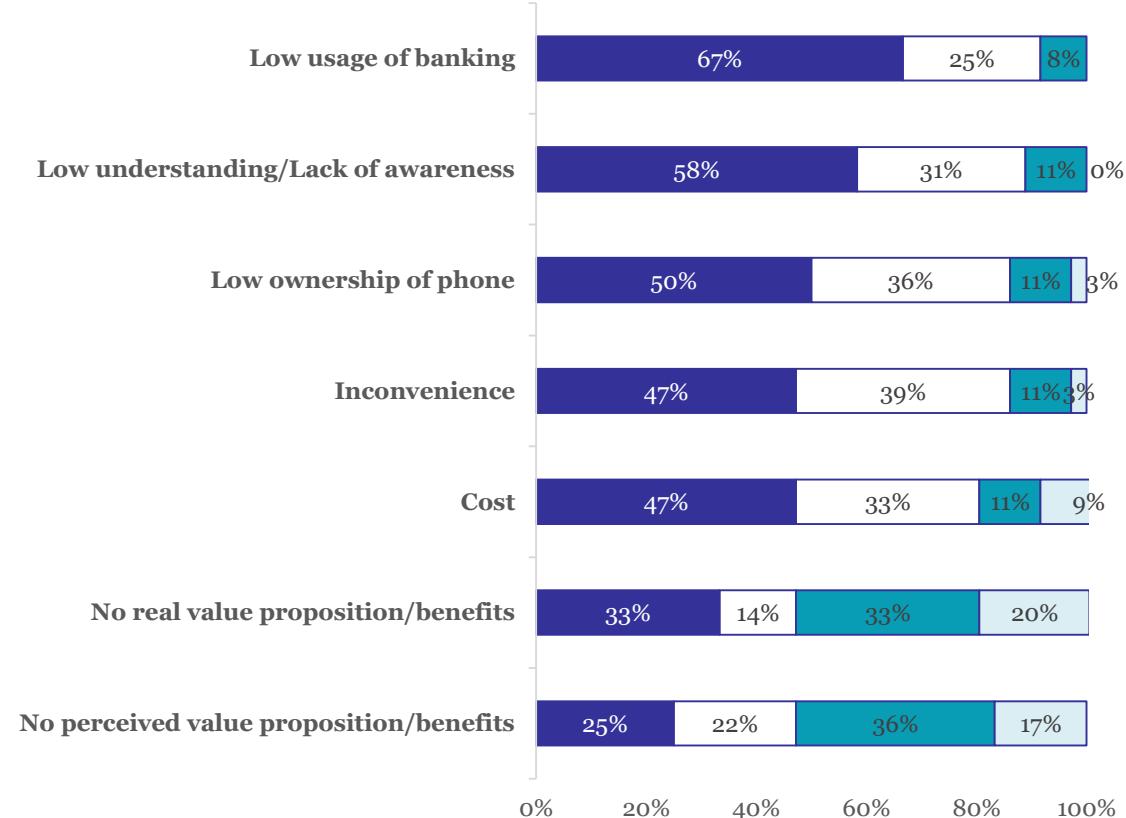
Challenges faced by customers while adopting cash-lite disbursement

N=36



Challenges faced by customers while adopting cash-lite repayment

N=36



■ High Importance

□ Medium Importance

■ Low Importance

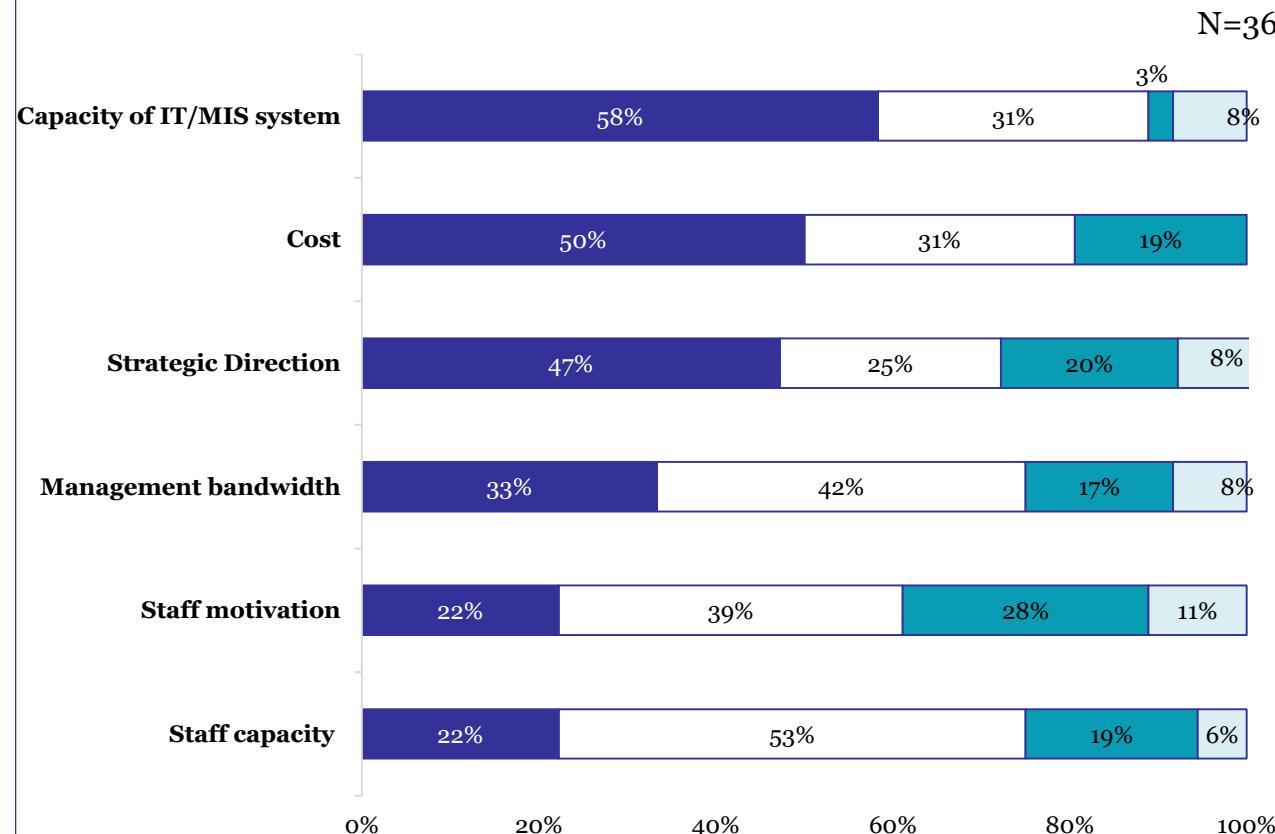
□ Not Important

* The questions on perceived borrower level challenges was asked by the MFIs and not the borrower.

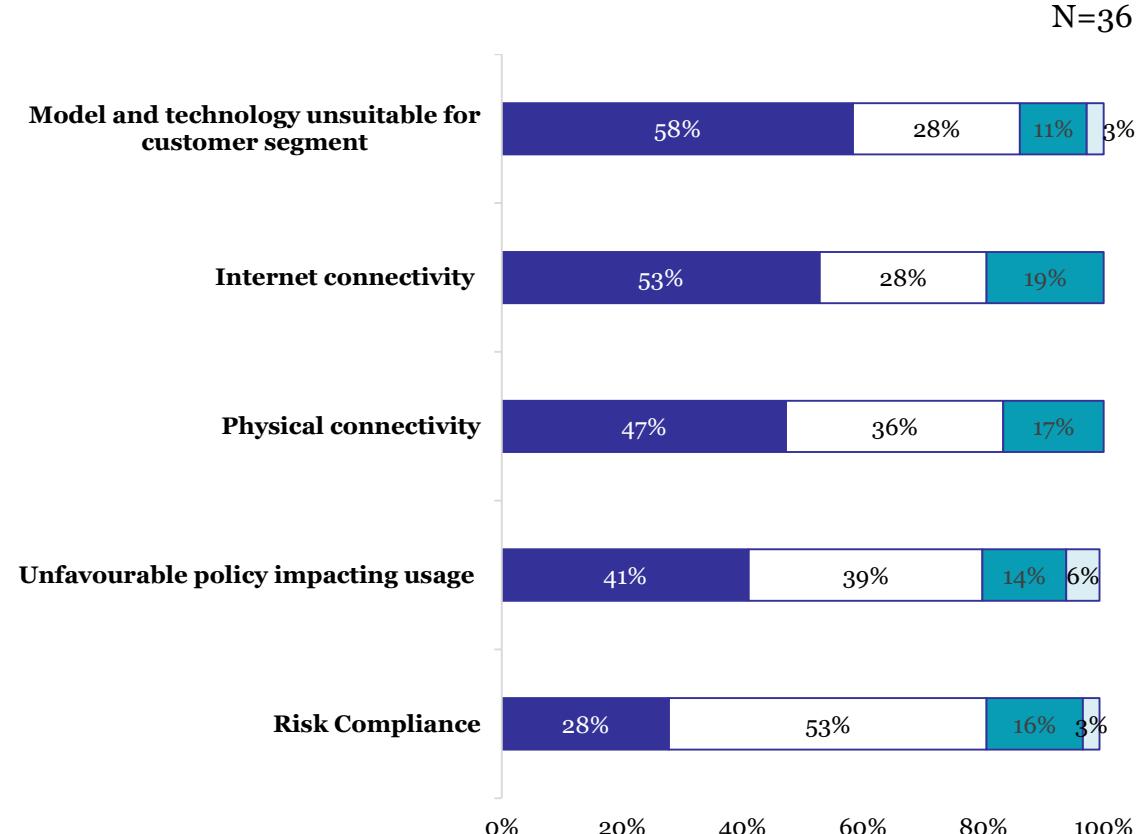
70

Perceived challenges at the institutional level with respect to going cash-lite

Internal challenges faced by the institution while adopting cash-lite processes



External challenges faced by the institution while adopting cash-lite processes



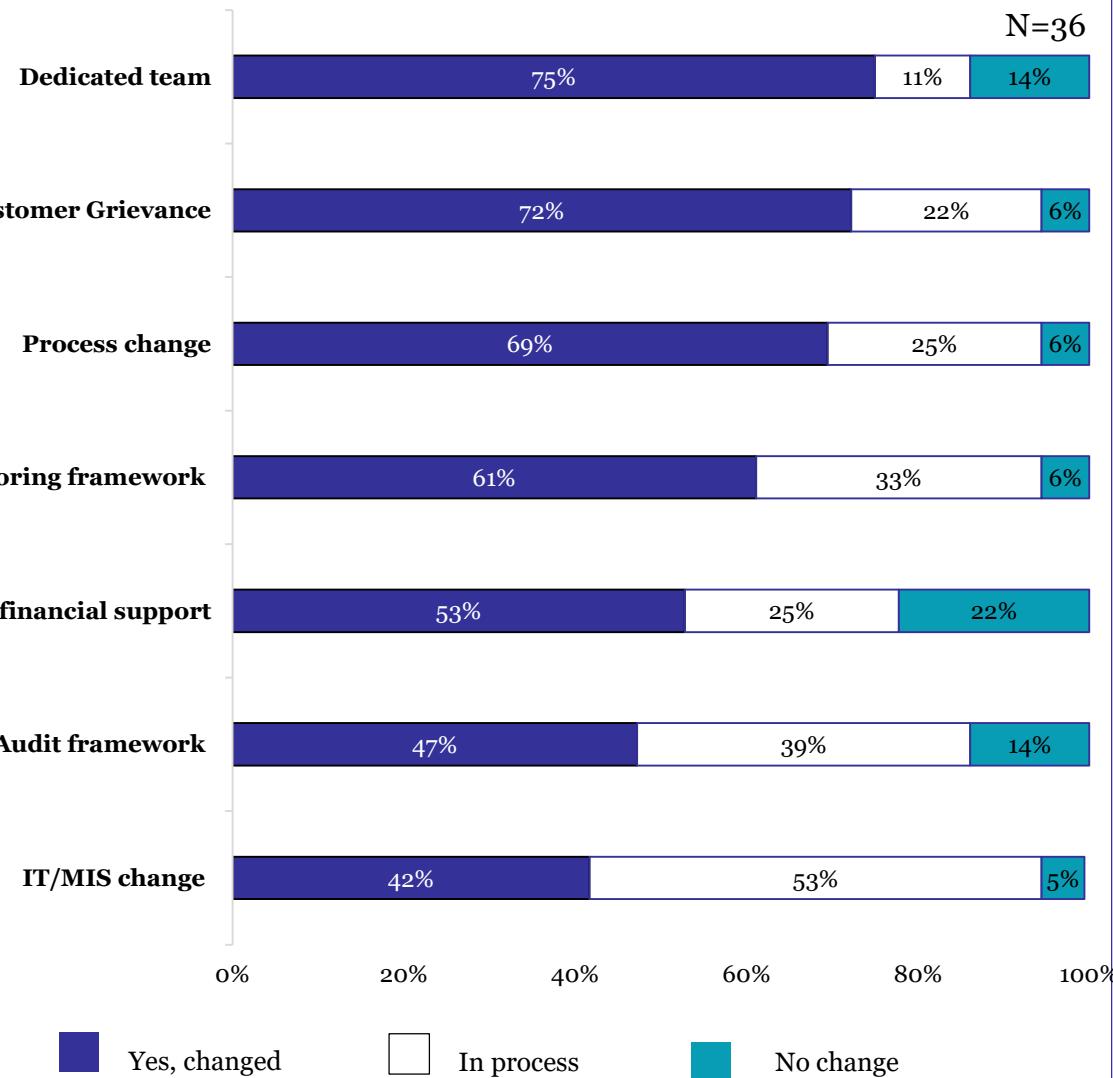
■ High Importance

□ Medium Importance

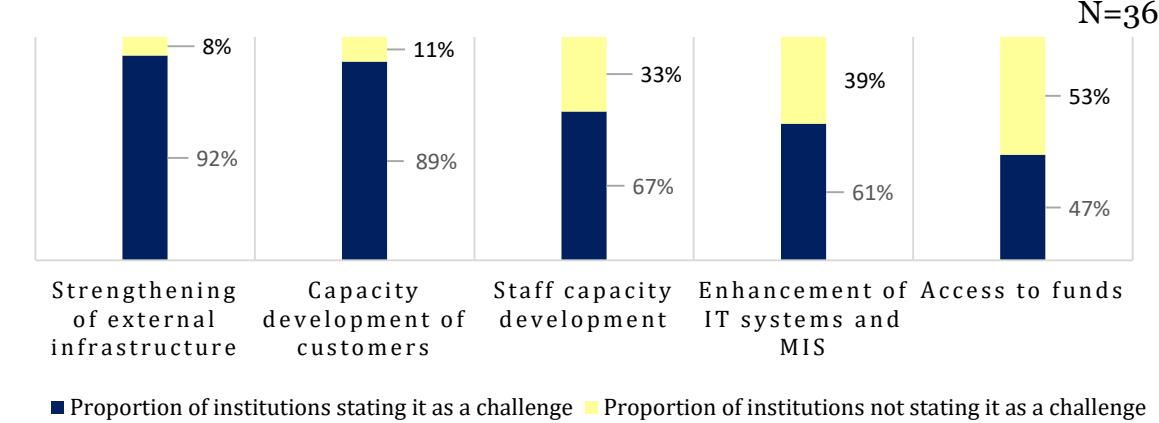
■ Low Importance

□ Not Important

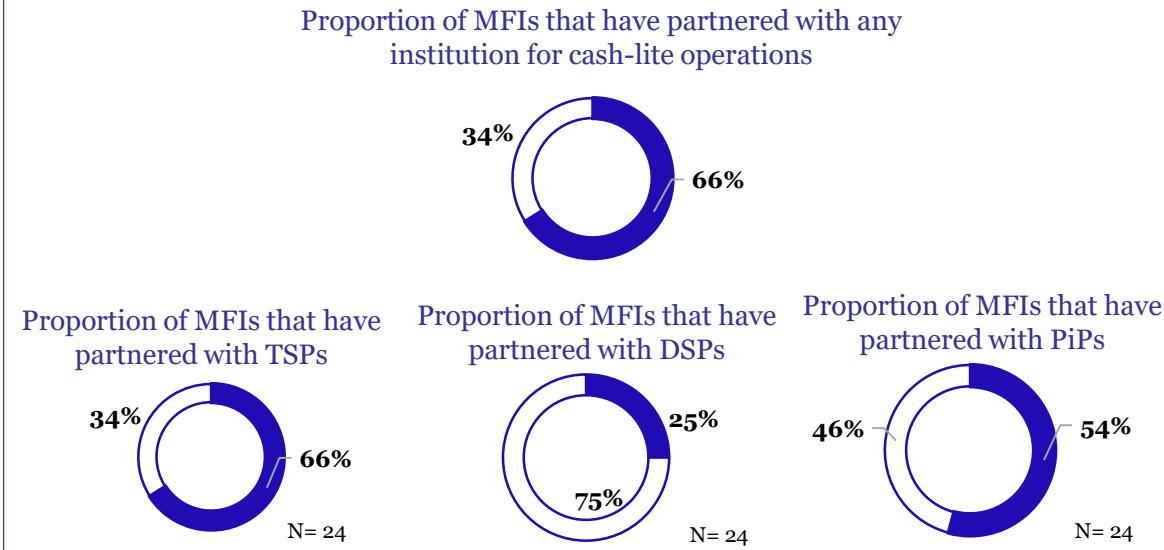
Status of readiness of institutions to go cash-lite/cashless



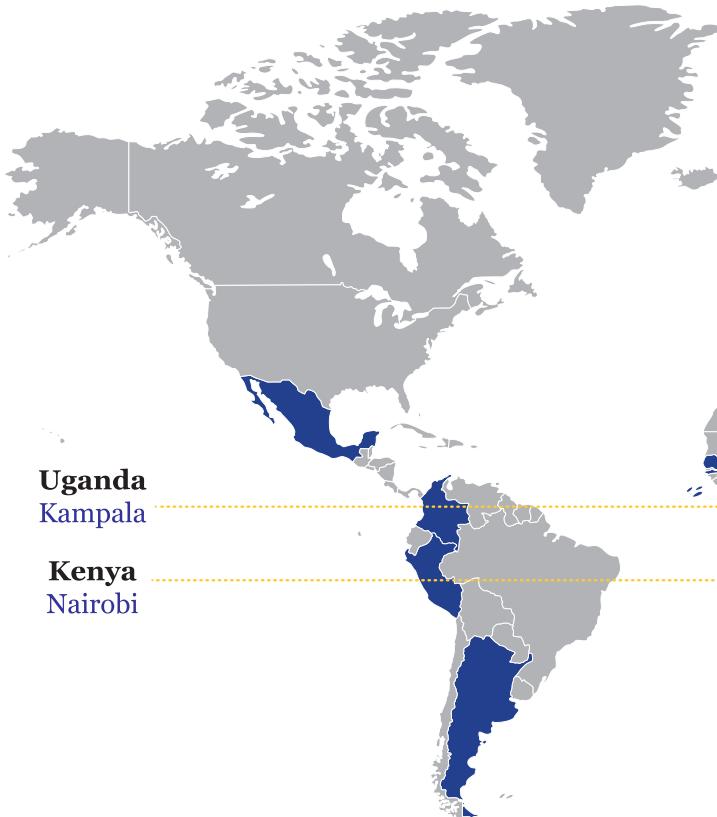
Support needed by financial institutions in adopting cash-lite operations



Status of partnership with other institutions



 **MicroSave Offices**
 **Impact Areas**



UK
Tewkesbury

India
Delhi
Lucknow
Hyderabad

Bangladesh
Dhaka

Uganda
Kampala

Kenya
Nairobi

Singapore

Indonesia
Jakarta

Philippines
Manila

Vietnam
Hanoi

Papua New Guinea
Port Moresby

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