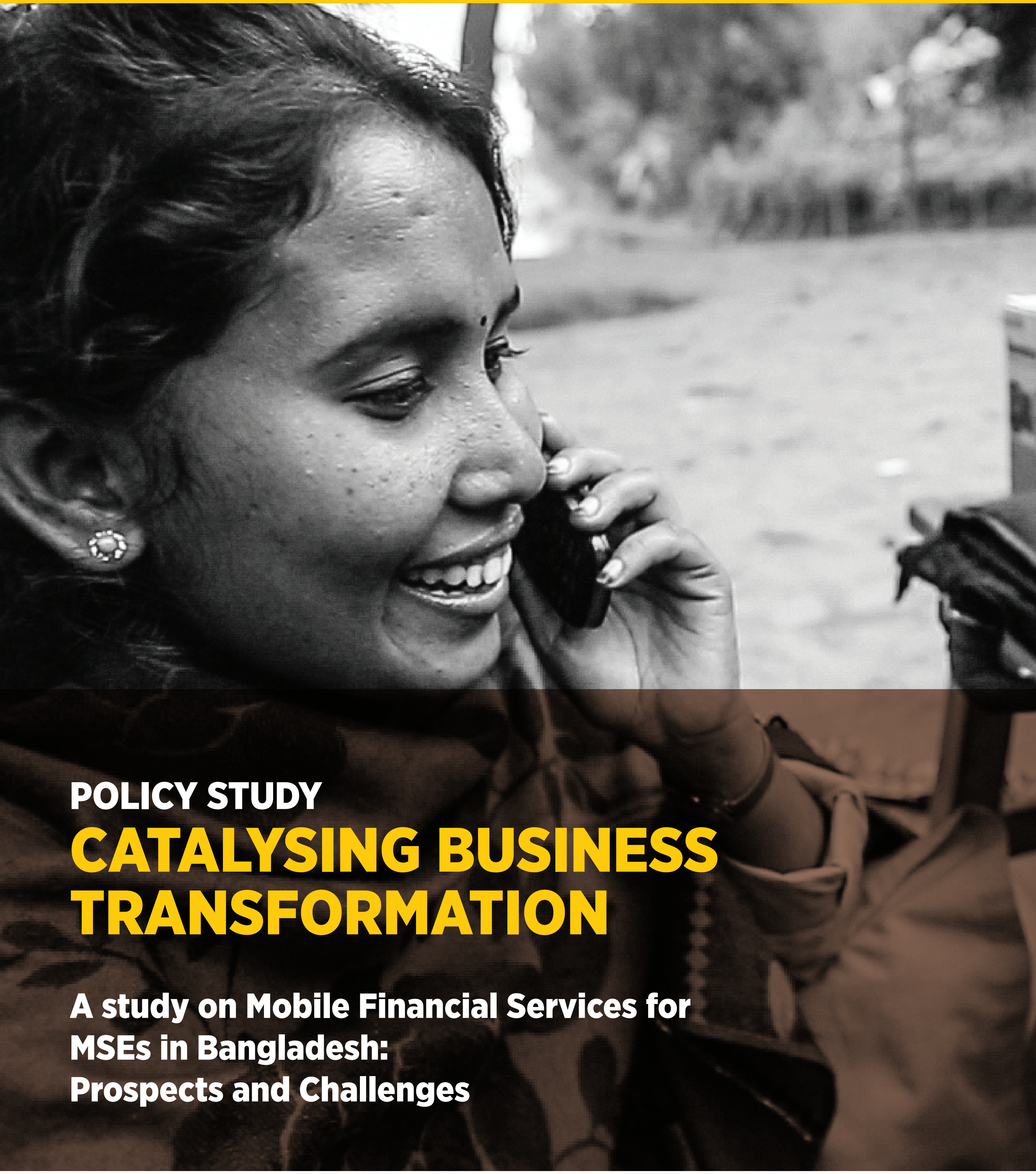
Business Finance for the Poor in Bangladesh



POLICY STUDY

CATALYSING BUSINESS TRANSFORMATION

A study on Mobile Financial Services for MSEs in Bangladesh: Prospects and Challenges

Executing Agency

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Oxford Policy Management

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MicroSave Market-led solutions for financial services

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Contents

Executive Summary

In 2011, the Bangladesh Bank issued guidelines for Mobile Financial Services (MFS). Bangladesh Bank is the central bank and chief financial regulator of Bangladesh. The guidelines would ensure access to financial services to the unbanked, given the rapid adoption of mobile phones in the country. Since then, the MFS sector in Bangladesh has experienced significant growth in terms of the number of registered and active users as well as the number of agents providing mobile money services. For instance, as of March 2017, there were more than 50 million registered MFS users as compared to 34.8 million in March 2016 – an annual growth rate of 45%. Of these registered users, 48% of the clients are active[1] MFS users. However, the pattern of transactions suggests that the MFS market in Bangladesh is limited to basic transactions, such as cash-in and cash-out. For instance, as per March 2017 data by the Bangladesh Bank, 81% of the transactions conducted through MFS were cash-in and cash-out transactions[2]. In short, the data suggests that the MFS market in the country is yet to move beyond basic transfers and payments. There is a need to develop a digital ecosystem for facilitating other types of payments, such as Government to Person (G2P), Person to Government (P2G), Business to Business (B2B), and Business to Person (B2P), among others.

Like most developing countries, Micro, Small, and Medium Enterprises (MSMEs) play an important role in the overall economic and industrial development of Bangladesh. MSMEs constitute the foundation of the private sector and provide employment to a large number of people, more so in emerging economies like Bangladesh. According to the latest estimates from Bangladesh Bureau of Statistics' (BBS) 2013 Economic Census[3], there are approximately 8 million MSMEs (non-farm economic units) in Bangladesh. It is estimated that 68.6% of small enterprises and 44.7% of medium enterprises[4] lack access to formal financial services. Through the Bangladesh Bank, the Government of Bangladesh (GoB) has recognised MFS as a key mechanism to meet its financial needs. With this recognition, Bangladesh Bank envisions to bring these MSMEs under the formal financial system.

UK Aid from the UK Government has funded Business Finance for the Poor in Bangladesh (BFP-B) – a five-year programme in Bangladesh to promote innovative finance and financial services for micro and small enterprises. The implementing agency for the programme is Bangladesh Bank (BB), and the executing agency is the Bank and Financial Institutions Division (BFID) of the Ministry of Finance (MoF), GoB. The programme is jointly managed by Nathan Associates London Ltd. and Oxford Policy Management.

Under the programme, Nathan Associates commissioned *MicroSave* to undertake a comprehensive study, titled **'Mobile Financial Services for Micro and Small Enterprises (MSEs) in Bangladesh: Prospects and Challenges'**. Broadly, this study aims to understand the use of MFS by MSEs. It identifies the key challenges and opportunities to address the needs for access to finance of the MSEs by MFS providers

MicroSave conducted a comprehensive study by undertaking both primary and secondary research. As part of the secondary research, we conducted a detailed review of existing literature on the use of MFS in Bangladesh, especially among MSEs. We researched and established key analogies from the global MFS market and drew illustrations that best fit the existing Bangladesh MSE and MFS sector. We approached the primary research using a mixed-methods research methodology (use of qualitative and quantitative research). The qualitative research comprised Focus Discussion Groups (FDGs) and face-to-face, structured Personal Interviews (PIs) with owners/proprietors of MSEs who use MFS to manage finance for business purposes.

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[1] An MFS user who has conducted at least one financial or non-financial transaction in three consecutive months (90 days) is considered as an active user.
[2] Bangladesh Bank, "Data on Mobile Financial Services in Bangladesh", March 2017.
[3] Bangladesh Institute of Development Studies, "Strategy for Development of the SME Sector in Bangladesh", Dhaka, January 2014.
[4] Inspired SME survey; [4] Bangladesh Institute of Development Studies, Dhaka, January 2014.

These interviews were focused to gauge their financial behaviour, challenges in access to finance, and mobile and MFS usage for business purposes. In addition, we carried out in-depth interviews with key stakeholders, such as regulators, policymakers, MFS providers, and other industry players. These interviews aimed to assess the valuable perspectives of stakeholders on the MFS landscape in Bangladesh, their views on leveraging MFS for targeting and serving MSEs, and the prevalent regulatory and supply-side challenges in the market.

MicroSave further conducted a quantitative research with three types of respondents – namely, owners/proprietors of MSEs who use MFS, owners/proprietors of MSEs who do not use MFS, and non-dedicated MFS agents. The representative sample comprised 505 MSE owners/proprietors. The overall sample included 74% micro and 26% small enterprises across Bangladesh. These MSEs have been further divided by the nature of their business, such as agriculture (22%), manufacturing (21%), and services (57%). The quantitative study also included 44 MSE owners who serve as MFS agents. These micro-enterprise owners fall under the services sector. The quantitative research captured views of the MFS agents have been captured and analysed separately to understand the supply-side perspective. It should be noted that the study focused extensively on micro and small enterprises in line with the study objective of Nathan Associates.

Some notable findings and recommendations of the overall study are presented below.

A. Access to Finance for MSEs in Bangladesh: **Low Coverage of Credit as a Product**

Access to Financial Sources

- MSE owners/proprietors in Bangladesh have access to both formal and informal sources of financial services. Formal financial service providers include banks, MFI-NGOs, cooperatives and MFS operators. Rotating Savings and Credit Association (ROSCA) /lottery s*amitis*, money lenders, and other unregulated service providers fall under informal financial service providers.

Usage of Formal Financial Sources

- Our study highlights that 72% of the MSE respondents have at least one savings bank account. The ownership of accounts, however, vary significantly with the nature of the business. For instance, 86% and 82% of MSE respondents operating in the manufacturing and service sector respectively have a bank account. The proportion of account ownership differs in the agricultural sector, where only 58% of MSEs have a bank account.

- Among the MSE respondents, 11% use cooperatives, chiefly for their personal and business use.

- Most of the MSE respondents who use MFS, use it to withdraw/cash-out more funds (95%) than deposit/cash-in (86%). Of deposit transactions, 57% are made to make P2P transfers.

Usage of Informal Financial Sources

- Three-fourth of the MSEs visit money-lenders to get emergency loans to repay some of the loans sourced from other providers.

Access to Credit to MSEs

- Only 25% each of small- and micro-enterprises are able to get credit from banks. This is due to non-standardisation of documentation procedure for loan-sanctioning across banks. Each bank has its own policies best suited to its business needs. Further, collateral requirements and loan guarantee make it cumbersome for MSEs to get credit from banks. As a result, they resort to other informal sources that offer them loans at usurious/high interest rates.

- Only 14% of respondents who use MFS access MFIs to avail savings and credit services. Of these, 100% small-enterprises and 83% micro-enterprises maintain their deposits with MFIs, whereas 60% small-enterprises and 53% micro-enterprises receive credit from MFIs. Further analysis suggests that MSEs in the manufacturing sector are more likely to use MFI for receiving credit (79%) than the service sector (56 %) and agriculture sector (22 %). However, the repayment modalities and interest rates offered by MFIs are some of the challenges associated while availing MFI credit services.

B. MFS in Bangladesh: **Enabling Regulations and Seamless Coordination is Critical**

- MFS in Bangladesh is mostly limited to basic services, such as cash-in, cash-out, P2P transfers, salary disbursement and utility bill payments. Of these, utility bill payments and salary disbursement hardly contribute 5% to monthly transactions in terms of value. Cash-in/cash-out and P2P transfers contribute almost 95% to the value and volume of transactions through MFS accounts.
- Most stakeholders assert that MFS in Bangladesh is in its infancy. They claim that the MFS providers have not yet realised the full potential of MFS (except perhaps for bKash). It is often argued among the industry players that customers view MFS only 'as a platform to transfer money, and not as a mobile wallet', which can be used to access various financial solutions. Although the outreach of MFS has increased in the previous few years, providers still concentrate on and offer little beyond basic financial and payment services, such as cash-in, cash-out, peer-to-peer transfers and airtime top-up. This is due to the following factors:
    - Lack of competition in the market;
    - Limited technological, financial and technical capability of the providers;
    - Ambiguous guidelines on MFS and failure to expand new use-cases and value propositions.
- Most industry players indicate that existing regulations on MFS are unclear and incomplete. The current guidelines do not entirely address teething troubles like data security, data privacy, customer protection, and risk-management framework, among others. Due to such ambiguity, some MFS players have refrained from making any significant investment.
- There is a limited understanding between the MNOs and MFS providers on the commercials of using USSD sessions for financial transactions. As per the existing bilateral agreement between providers and MNOs, MNOs lack visibility on various key revenue generating aspects of the MFS business, such as the type of transactions (financial or non-financial), and value and volume of transactions. The existing revenue-sharing model between MNOs and MFS providers does not favour new, smaller MFS players, creating an entry-barrier for them. Many small banks, which already operate and/or are planning to launch their MFS business, feel that they receive non-preferential USSD pricing from the MNOs. Large MFS providers are able to negotiate better pricing with the MNOs due to economies of scale. Limited/low economies of scale directly affect the bargaining power of small MFS players.
- Most stakeholders claim that there is lack of harmonisation and coordination between the two regulators – Bangladesh Telecommunications Regulatory Commission (BTRC) and Bangladesh Bank. As a result, industry-level challenges and bottlenecks are not addressed in a time-bound manner. The disagreement between the two regulators is primarily on the issue of a uniform USSD pricing policy. While BTRC has been pushing BB for session-based pricing for the MFS industry, a few MFS providers (particularly larger players) continue to resist adopting the proposed commercial model without undertaking a comprehensive cost-modelling exercise.
- There is enough evidence that suggests that there is a significant difference between the market share of the leading player (bKash) and the nearest competitor (DBBL-Rocket). A lack of competition is considered to be a key factor behind the absence of innovative MFS products in the market.
- MSEs employing MFS for personal use cite lack of interoperability as one of the reasons for limited uptake, especially among rural customers. Currently, the reach of all MFS providers is not the same. Only a few dominant players are visible catering to the last-mile in Bangladesh.
- Network connectivity issues have also created doubts among customers and agents while using mobile money services. There have been instances where the transaction status message has not been delivered

to the MFS user. This creates confusion among customers and agents, and as a result, affects the trust of users on MFS.

- Most respondents believe that MFS providers should introduce new products in the market to attract more customers. Products that are currently unavailable or sparingly available are tuition-fee payment, scholarship payment, credit facility, insurance premium collection, hospital bill payment, monthly deposit against deposit pension scheme (DPS), and monthly instalment deposit.

C. MFS for MSEs for Business: **Bottlenecks in MFS for Business**

- A handful of officials working at various regulatory bodies are less aware of the current MFS landscape in Bangladesh and do not understand the scope and potential of adopting MFS for MSEs. Moreover, industry experts and key stakeholders of MFIs and MSEs possess a limited understanding of the current state of the MFS sector. They have low awareness on the potential of MFS in their line of business and for end-clients. As a result, it is believed the providers may show some resistance in introducing MFS in their business to cater to MSEs.

- High cash-out charges, limited use-cases and insufficient storage and transaction limit on an MFS account are the top three reasons that impede the uptake of MFS by MSEs. To a large extent, these bottlenecks lead to inactivity and low usage of MFS accounts in Bangladesh.

- The current MFS features do not fulfil the regular business requirements of MSEs, such as exclusive business account, enhanced transaction limit, and reduced charges, among others. As a result, the MFS usage for business is limited among the MSE owners/proprietors and their staff. The providers need to devise different operational terms and conditions, charges, and limit of transaction for MFS business accounts. Such accounts will help MSEs in increasing the uptake of MFS. The account can be linked to the MSE owner's bank account for transactions between accounts without the need to go to an ATM.

- An impediment to merchant payments is the unfriendly and complicated user interface of services, such as Unstructured Supplementary Service Data (USSD). The complex process to pay a merchant involves many steps. As a result, the customers prefer transacting using cash.

- MSEs feel that there is a lack of incentive to use an MFS account for business. Most MFS providers rarely offer any incentive schemes like cash-back, upfront discount, loyalty points, or awards to MSE owners for using their MFS account. This impacts the usage of MFS as well as the stickiness of the MSE owners with the provider.

- MSEs highlighted that some of the key features required for business use in MFS are low-interest short-term credit, interoperable MFS services, and flexible loan repayment terms.

Our top six recommendations to catalyse the uptake of MFS by MSEs are:

- Bangladesh Bank should release a revised and comprehensive document on the guidelines for MFS with a special focus on MSEs. The new guidelines should present the central bank's vision and plans to promote the DFS[5] (and not just MFS[6]) sector in the country. The revised guidelines should clearly define the scope of MFS, norms to allow for tiered-KYC[7] and e-KYC, its vision on interoperability, customer protection, data privacy, risk management framework, and policies for regulating and supervising the MFS sector in the country.

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[5] Digital financial services (DFS) are services that expand the delivery of basic financial services through innovative technologies like mobile-phone-enabled solutions, electronic money models and digital payment platforms.
[6] Mobile financial services (MFS) are services that deliver basic financial services through mobile as transaction terminal.
[7] KYC stands for Know Your Customer. Financial service providers require a KYC to validate their customer's identity and address for AML/CFT purposes.

- Ecosystem players need to improve coordination, invest in capacity-building and foster cohesive partnership to develop a digital ecosystem for promoting MFS among MSEs. Bangladesh Bank should work with BTRC to improve coordination among various industry players and develop a conducive environment for sustainable partnership and fair competition. BTRC and BB should work together to resolve the long pending issues of commercial agreement between MFS providers and MNOs, and finalise a session-based USSD pricing. Furthermore, substantial efforts should be made to build the capabilities of regulators, such as BB, BTRC and Microcredit Regulatory Authority (MRA) on the following:
    - Technical understanding of MFS and DFS operations along with global best-practices;
    - Use and limitation of technology;
    - Payments and settlements;
    - Product innovations;
    - Interoperability;
    - Regulatory framework;
    - Risk and fraud management, among others.

- MFS providers need to create a separate (business) account for the MSEs with features that are distinct from an existing MFS account. Our research suggests most MSEs are willing to adopt MFS for business purposes provided the products are customised to their needs. Therefore, the providers should work towards creating a separate account for the MSEs. Such an account would have different features when compared to an existing MFS account for a general customer.

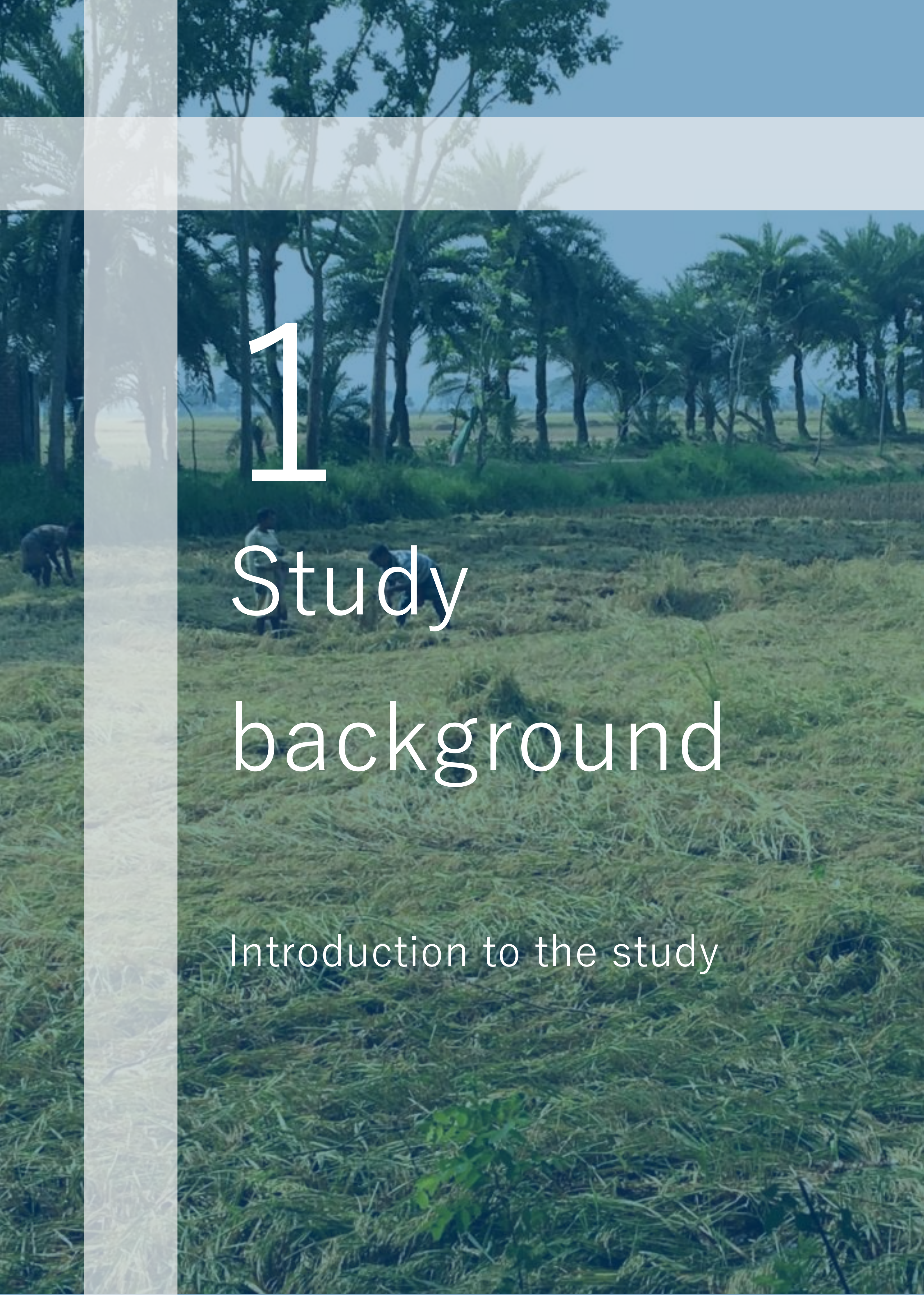
- Regulators should formulate a uniform USSD pricing policy for all MFS providers to promote a fair, competitive environment. The entry of more players with equal revenue-sharing with the MNOs for distributing their USSD infrastructure should drive competition in the somewhat monopolistic market of Bangladesh. The regulators should adopt the fair, global practice of 'session-based pricing'. To achieve this, we propose that the regulators should plan to undertake a financial modelling exercise on costing and pricing of a USSD session. It should, however, be noted that such an exercise can be time-consuming. In the interest of market players and MFS users, the regulators can set an interim tariff for USSD sessions.

- MFS providers need to design and re-engineer products for MSEs as well as explore the possibility of aligning the tariff for a greater uptake and usage. This is required to move the MFS market beyond cash-in, cash-out, and payments. Most people in Bangladesh are aware[8] of MFS. Providers can utilise this awareness to innovate new products and re-engineer existing products to develop tailor-made financial and non-financial solutions for MFS users. In addition, providers should revise their tariff (considered expensive and prohibitive by most users) and pilot the impact of reduced, preferential tariff on a small, closed section of MSEs.

- Policymakers and regulators should develop a regulatory sandbox for various players to innovate new products and services for the MSEs. This initiative will leapfrog Bangladesh Bank's efforts to move beyond payments. The sandbox would allow the central bank to offer an enabling environment to various players for them to develop innovative financial and non-financial solutions for the financially excluded masses. A regulatory sandbox is likely to attract various new-age and innovative fintech players to test novel products and services for customer segments, such as MSEs. The policymakers may also offer mentorship opportunities to these players to develop low-cost, scalable and relevant savings, credit, deposit, pension, and insurance products.

Each recommendation also introduces some key case studies, detailed at the end of this report, from countries across the globe. These case studies provide rich insights on MSE and MFS and the best-practices followed in some leading MFS markets, such as Cambodia, India, Ghana, Kenya, Malaysia, Pakistan, and Tanzania.

[8] Intermedia (2017). Financial Inclusion Insights Bangladesh, 2017. Available at http://finclusion.org/uploads/file/Bangladesh%20Wave%204%20Report_20_Sept%202017.pdf [Accessed 20 Oct. 2017]



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Study background

Introduction to the study

Introduction

1. Background to the Study

The development of Micro, Small, and Medium Enterprises (MSMEs) is considered as a key element in Bangladesh's development strategy. Enhanced MSE activity, especially in rural and backward regions, constitutes a crucial component of the strategy of the Government of Bangladesh for rural development, as well as the reduction of poverty and regional disparity.[9] According to the latest estimates from the Economic Census conducted in 2013, 7.95 million MSMEs operate in Bangladesh[10], a 114% growth over the 3.71 million units found in the previous census conducted in 2003.

Likewise, rapid developments in mobile phone technology, network capability and availability, as well as consumer adoption have led to an unprecedented rise in the use of MFS in Bangladesh. This provides unprecedented opportunities for businesses to offer new types of products and services to the market. These products can augment or even replace existing financial products and services such as deposits, withdrawals, remittances and utility payments, among others. As of March 2017, the number of registered MFS accounts in Bangladesh reached 50 million[11]. It is MFS that also drove the increased usage of financial services from 2014 to 2017[12]. For example, as of March 2017, a total of 717,046 MFS agents[13][14] serviced 50.42 million registered MFS users. With an active account percentage rate of 48%, there are 25.57 million active MFS user in the country[15]. As of March 2017, the average daily transaction volume is 4.89 million with the number of daily average transactions (value) of 8079.6 million BDT (USD 96 million).

The Industrial policy of 2016 provides the following definitions of Small and Micro-Industries:

Small industries

Manufacturing- Those which have a fixed asset of BDT 7.5 million to 150 million (USD 90,000 to 1,800,000) including the establishment cost other than the land and factory or a total employee size of 31 to 120

Service - Those which have a fixed asset of BDT 1 million to 20 million (USD 12,000 to 240,000) including the establishment cost other than the land and factory, or a total employee size of 16 to 50

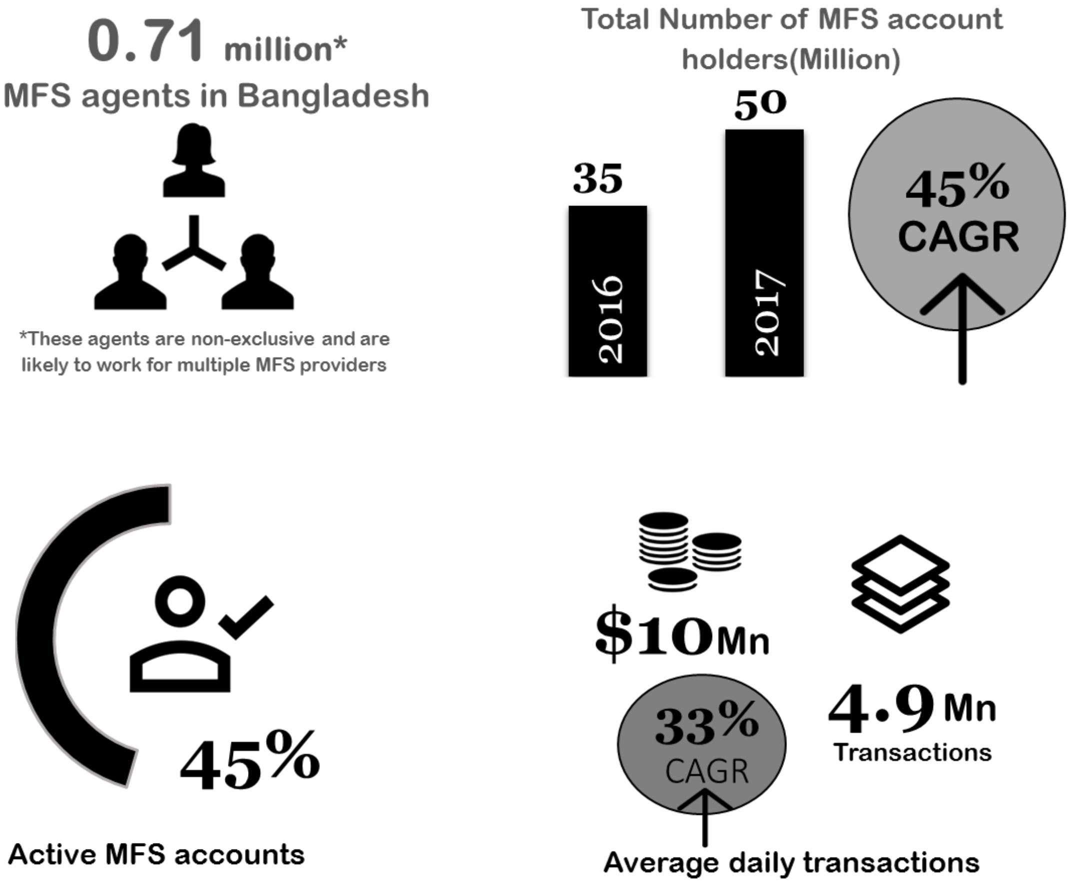
Micro Industries

Manufacturing- Those which have a fixed asset of BDT 1 million to 7.5 million (USD 12,000 to 90,000) including the establishment cost other than the land and factory, or a total employee size of <=16 to 30

Service- Those which have a fixed asset of BDT <1 million (USD <12,000) including the establishment cost other than the land and factory, or a total employee size of <=15

[9] Bakth, Zaid and Abul Basher, "Strategy for Development of the SME Sector in Bangladesh", *BIDS*, Dhaka, 2015.
[10] Bangladesh Bureau of Statistics (BBS), "Preliminary Report on Economic Census 2013", Dhaka, 2013.
[11] Source: Bangladesh Bank
[12] Intermedia (2017). Financial Inclusion Insights Bangladesh, 2017. Available at http://finclusion.org/uploads/file/Bangladesh%20Wave%204%20Report_20_Sept%202017.pdf [Accessed 20 Oct. 2017]
[13] Annexure D, Comparative Growth of MFS
[14] This number may include repeat counting (Bangladesh agents are non-exclusive, and may serve more than one MFS provider)
[15] Source: Bangladesh Bank

Snapshot of Mobile Financial Services in Bangladesh



Through the Bangladesh Bank, the Government of Bangladesh (GoB) has recognised MFS as a key mechanism to meet its financial needs. With this recognition, Bangladesh envisions to bring these MSMEs under the formal financial system.

UK Aid from the UK Government has funded a five-year programme in Bangladesh – Business Finance for the Poor in Bangladesh (BFP-B). The objective of the programme is to promote innovative finance and financial services for small- and micro-enterprises. Bangladesh Bank (BB) is the implementing agency, and the Bank and Financial Institutions Division (BFID) of the Ministry of Finance (MoF), GoB is the executing agency for this programme. The BFP-B programme is jointly managed by Nathan Associates London Ltd. and Oxford Policy Management. Nathan Associates commissioned *MicroSave* to undertake a comprehensive study, titled **'Mobile Financial Services for Micro and Small Enterprises (MSEs) in Bangladesh: Prospects and Challenges'**. Broadly, this study aims to understand the use of MFS by MSEs, and identifies key challenges and opportunities to address the needs for access to finance of the MSEs by MFS providers.

2. Objective of the Study

The study aims to provide clear insights and strategic inputs for regulatory and policy reforms as well as recommendations to accelerate MFS for the MSEs in Bangladesh. The study pertains to regulators, that is, BB, BTRC, and MRA; policy makers such as Access to Information (a2i); MFS providers and industry players. This comprehensive, in-depth study will also help MFS providers to better understand the market potential to expand MFS among MSEs, and offer diversified financial and non-financial products and services to various sectors under MSEs.

The **broad objective of the study** is to understand the use of MFS by MSEs, identify key challenges that limit the uptake of MFS by MSEs, and explore opportunities to address the needs of the MSEs by MFS providers.

The **specific objectives of the study** are to:

- Ascertain key challenges from regulators, policymakers, industry players, and MFS supply-side perspective in serving MSEs;
- Explore key constraints that limit MFS providers from offering innovative products to the MSEs;
- Understand the use of MFS by MSEs, and identify the key barriers and factors that discourage MSEs from the use of MFS for business purposes;
- Identify key product and feature requirements of the MSEs for adopting MFS for business transactions;
- Review international best-practices on bank-led and non-bank led MFS models;
- Identify key opportunities and strategies to expand MFS to meet the requirements of MSEs and address the barriers identified during the course of the study;
- Recommend key strategies and policy solutions to accelerate MFS for the MSEs in Bangladesh;
- Analyse policy and regulatory issues with a focus on pricing, competition, over-the-counter (OTC) services, USSD channel;
- Identify key thrust areas for the National Financial Inclusion Strategy (NFIS) in terms of acceleration of MFS for/with MSEs in the country.

3. Our Approach to the Study

MicroSave conducted the study following a phase-wise approach, from project inception to dissemination. The phases have been detailed out comprehensively in Annexure D.

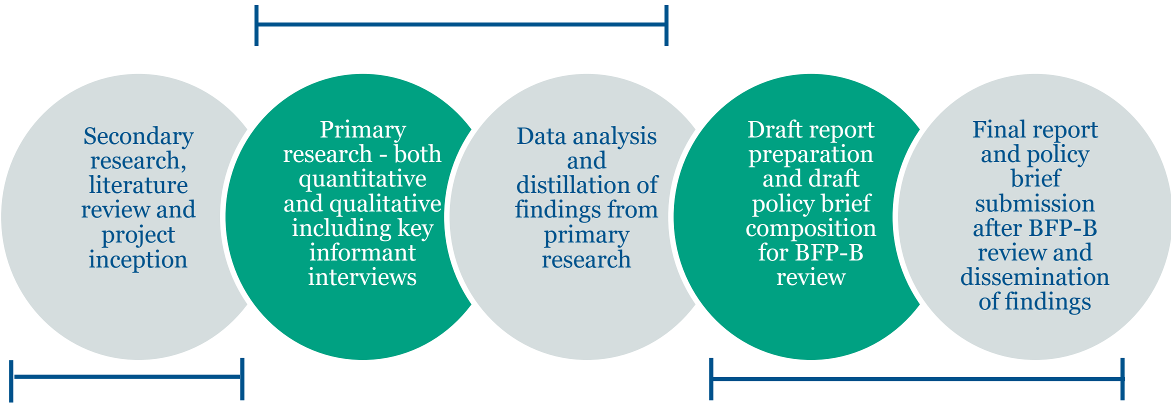
Phase	Activities	Deliverables
Phase 1: Project inception	▪ Literature review on MFS in Bangladesh and other countries ▪ Secondary research on both MFS and MSE sectors focusing on the use of MFS among MSEs ▪ Preparation of research methodology ▪ Consultation with key stakeholders to review research methodology ▪ Preparation for primary research	▪ Inception report
Phase 2: Primary research	▪ Pilot testing of data collection tools ▪ Further refinement to tools if necessary ▪ Primary data collection from quantitative survey ▪ Field monitoring ▪ Qualitative research consisting of FDGs and PIs ▪ In-depth interviews with stakeholders from demand, supply and regulatory sides	▪ Research plan and tools for primary research
Phase 3: Data consolidation & report preparation	▪ Consolidation of data from primary research ▪ Data cleaning ▪ Analysis of primary data collected ▪ Distillation of findings from qualitative research ▪ Preparation of draft report and draft policy brief based on findings from secondary and primary research	▪ Draft research report
Phase 4: Report finalisation & dissemination	▪ Address review of BFP-B on interim report and policy brief ▪ Preparation of a slide deck of key findings to be reviewed by BFP-B before finalisation ▪ Present report and findings in a dissemination seminar organised by BFP-B	▪ Final research report ▪ Policy brief ▪ Presentation

MicroSave conducted both qualitative and quantitative research to undertake the study comprehensively. The broad approach to the study has been diagrammatically represented below.

The qualitative research comprised Focus Discussion Groups (FDGs) and face-to-face structured Personal Interviews (PIs) with owners/proprietors of MSEs who use MFS for business purposes. These interviews focused on understanding their financial behaviour, challenges in access to finance, use of mobile and MFS for business purposes. We conducted in-depth interviews with key stakeholders, such as regulators, policymakers, industry players, and MFS providers. The key informants shared their valuable perspectives on MFS in Bangladesh, prevailing challenges in the market, and their views on leveraging MFS for targeting financially excluded MSEs.

In addition, we conducted quantitative research with three types of respondents:

a. Owners/Proprietors of MSEs who use MFS
b. Owners/Proprietors of MSEs who do not use MFS
c. MFS agents (non-dedicated)



This involved a comprehensive literature review and secondary research on the use of MFS, especially among MSEs as well as policy and regulatory aspects. As part of the project inception, we prepared the research methodology, which was shared and reviewed with key stakeholders. We also submitted an inception report to BFP-B.

This will involve preparation of a draft report and draft policy brief based on the findings from the primary and secondary research conducted. These will be submitted to BFP-B for review. Post BFB-P review, we would incorporate all comments and suggestion provided and submit the final report and final policy brief. *MicroSave* would prepare a presentation deck for submission to BFP-B for review before the dissemination seminar. Key *MicroSave* staff will present the key findings in a dissemination seminar organised by BFP-B.

A snapshot of the sample covered during the qualitative and quantitative research is presented below.

A Snapshot of Primary Research

Qualitative Study			Quantitative Study		
FGDs with MSE owners who use MFS	Key informant interviews	Semi-structured interviews with MSEs using MFS	PIs with MFS agents	PIs with MSEs that use MFS	PIs with MSEs who do not use MFS
7	**29**	**16**	**44***	**279**	**226**

Owner/Proprietor users		Classification of MSE sectors	MFS Non-Users	
Micro-Enterprises	Small Enterprises		Micro-Enterprises	Small Enterprises
43	-	Agriculture	67	2
49	14	Manufacturing	39	5
108*	65	Services	68	45
200	**79**	Total Samples Covered	**174**	**52**

* We also conducted PIs with 44 MSE owners who are MFS agents. These micro-enterprise owners fall under the services sector. As they play a major role in the uptake of MFS, their views have been captured, analysed and presented separately in our study to understand the supply-side perspective.

The classification of the MSE sectors is based on the nature of business of the owner/proprietor interviewed, along with the number of people employed in the business. This follows the classification of MSEs made under the National Industrial Policy of 2016[16].

A snapshot of sample covered during quantitative research

Overall Sample	Service sector	Agriculture and allied sector	Manufacturing sector	Total Sample
Metro	164	39	68	**271**
Other Municipal Areas	86	29	39	**154**
Rural	36	44	0	**80**
TOTAL	**286**	**112**	**107**	**505**

Key facts about the qualitative research sample

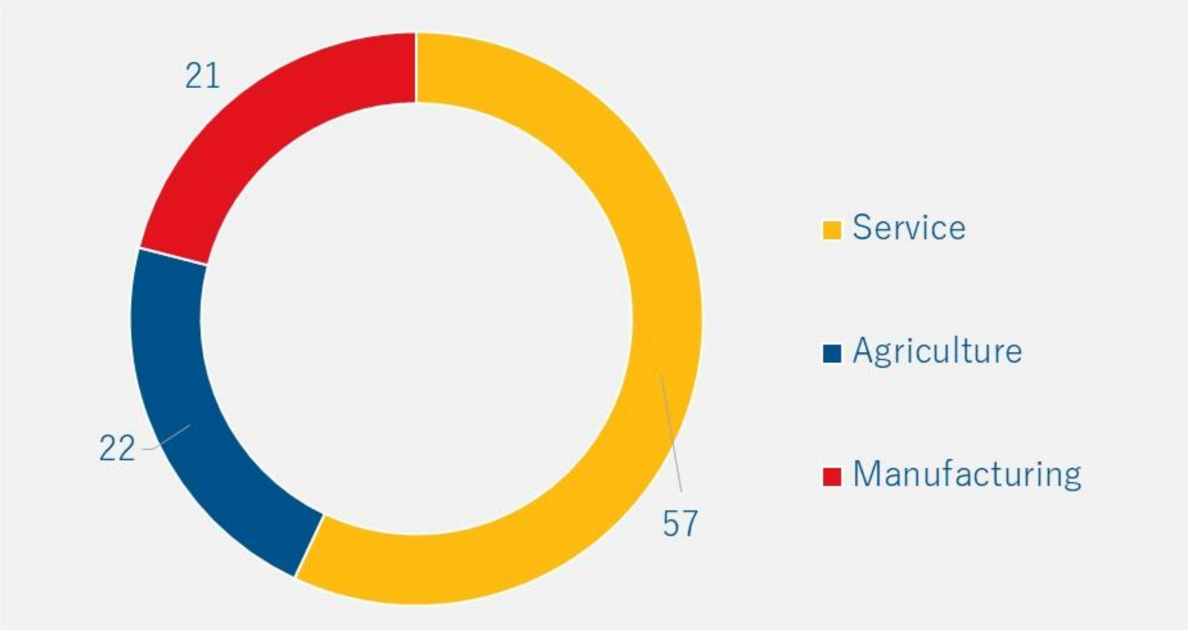
a. More than half the MSE owners belong to service sector

b. MSE owners of agricultural sector had fair representation in all the geographies

c. One-third of the MSE owners who use MFS have been running their business since the last three years

[16] Ministry of Industries (MoI), Government of Bangladesh, "Industrial Policy 2016", 2016.

Exhibit 1: Sector-wise break-up of MSE owners covered in the quantitative research (in %)

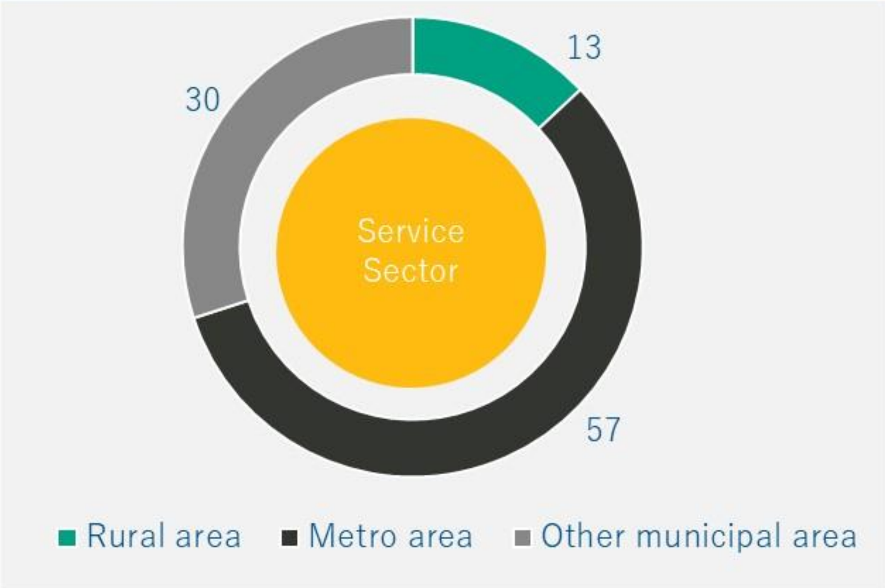


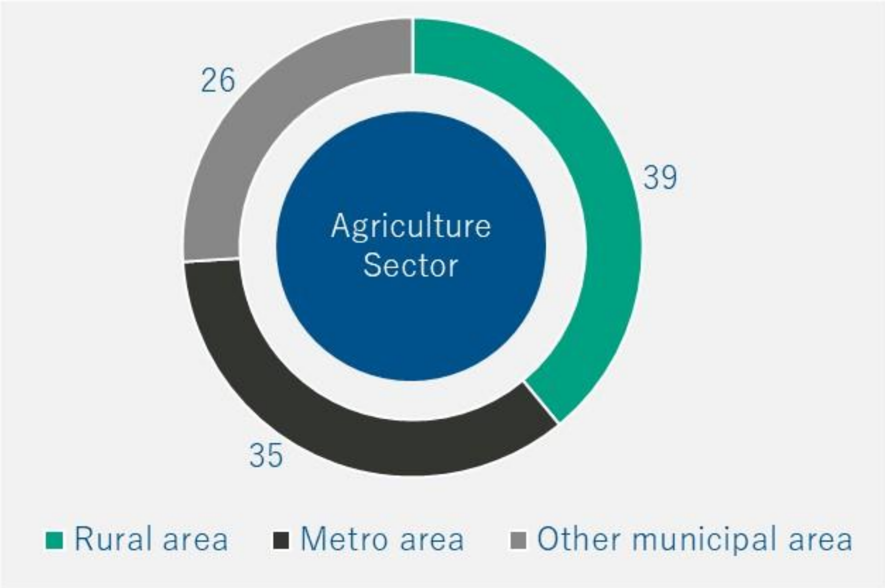
∑ = 505 (includes MSE owners using and not-using MFS for business purposes)

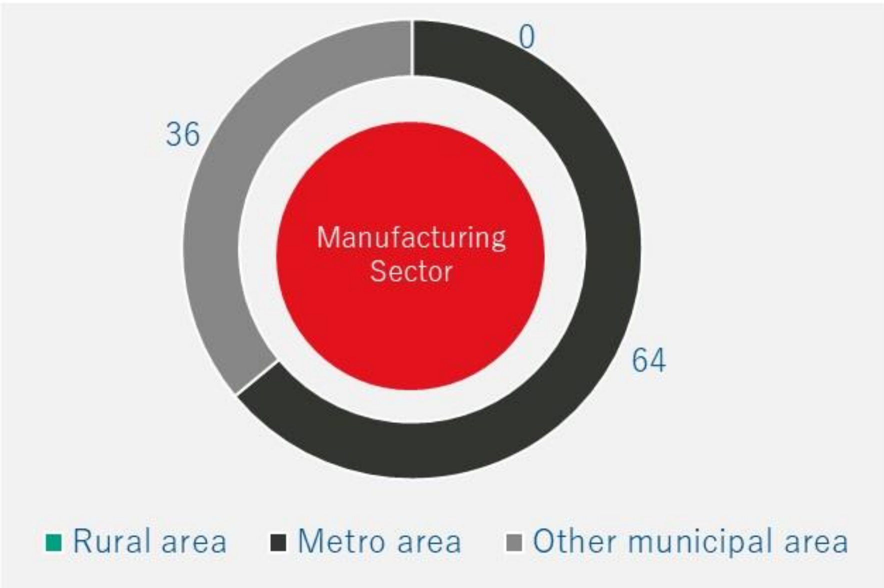
Exhibit 2: Years MSE owners have been in business (in %)

∑ = 279 (includes only the MSE owners using MFS for business purposes)

Exhibit 3: Geography-wise break-up of MSE owners (in %)







4. About the Report

MicroSave prepared this comprehensive report for the Business Finance for the Poor in Bangladesh (BFP-B) programme as part of the deliverables for the study on Mobile Financial Services (MFS) for Micro and Small Enterprises (MSEs) in Bangladesh: Prospects and Challenges. This report captures insights gathered from the qualitative and quantitative research. It has been divided into six broad sections.

The first section covers the study objective, approach, and details of the sample covered. The second section highlights the landscape of MSEs in Bangladesh. It also captures the current financial behaviour of the MSEs, the formal and informal products and services used by them, as well as the factors limiting their access to and usage of formal channels. Section three provides a holistic view on MFS in Bangladesh. This section examines the viewpoint of regulators, providers, policymakers, and industry players on the current landscape of MFS in Bangladesh. It also covers the key challenges inhibiting the uptake of MFS in the country and captures the views of the MSE owners using MFS or OTC services for personal purposes.

Section four examines the landscape of MFS for MSEs for business needs and transactions. It highlights the supply side and demand side challenges that limit the adoption and use of MFS by MSEs for business purposes. It also covers the risks in MFS as well as the viewpoint of the industry players and MSE owners on the opportunities for the MFS providers to meet their business requirements.

The last two sections focus on the recommendations for the regulators, policymakers and providers to promote the accessibility, adoption, and usage of MFS among MSEs in Bangladesh.

2

MSE in Bangladesh

Understanding the Financial Behaviour of MSEs

MSE in Bangladesh

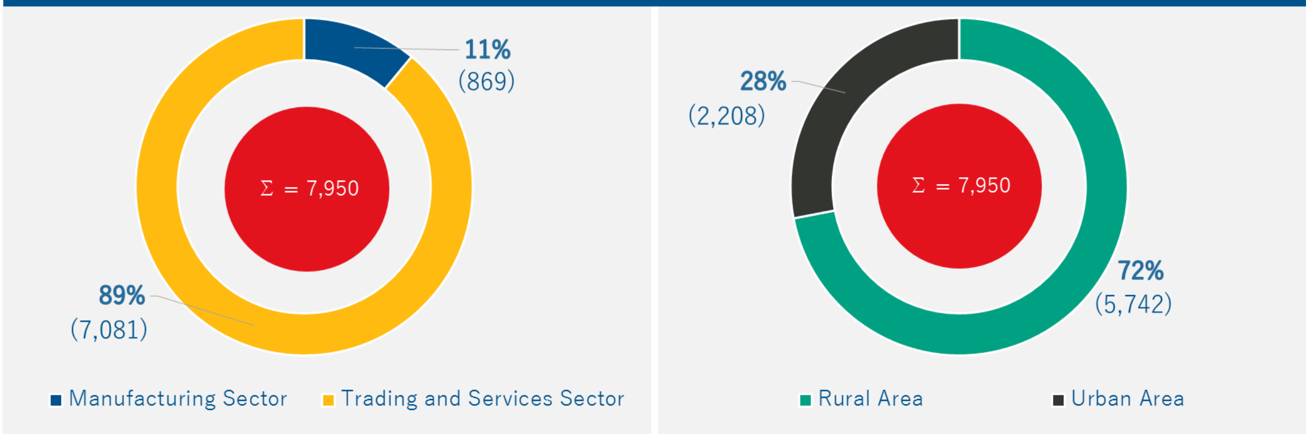
1. Landscape Analysis of MSEs

In Bangladesh, MSMEs play an important role in the overall economic and industrial development. The MSMEs constitutes the foundation of the private sector and provide the largest proportion of employment. As per the Industrial Policy 2016, any firm/business which is not a public limited company can be classified under small and medium enterprise based on the two basic criteria i.e. assets and employment. The MSEs have been further categorised with regard to the types of activities, such as manufacturing, services, and trading. The central bank, however, does not consider trading under MSMEs.

Type of Enterprise	Criteria	Manufacturing Sector	Service Sector	Trading Sector
Micro Enterprise	Fixed Asset (Excluding Land and Building)	BDT 1 million to 7.5 million (USD 12,000 to 90,000)	BDT <1 million (USD <12,000)	BDT <1 million (USD <12,000)
	Employees	16-30	Up to 15	Up to 15
Small enterprise	Fixed Asset (Excluding Land and Building)	BDT 7.5 million to 150 million (USD 90,000 to 1,800,000)	BDT 1 million to 20 million (USD 12,000 to 240,000)	BDT 1 million to 20 million (USD 12,000 to 240,000)
	Employees	31-120	16-50	16-50

According to latest estimates from the Economic Census conducted by Bangladesh Bureau of Statistics (BBS) in 2013[17], there are 7.95 million MSMEs (non-farm economic units) in Bangladesh as compared to 3.71 million units recorded in 2003.

Exhibit 4: Sector-wise and geography break-up of MSMEs in Bangladesh (in '000 and %)



Most of the traders and owners/proprietor in the services sector are located in rural areas (72%). It provides a significant opportunity for MFS providers to serve the services sector in rural areas. Our study also found

[17] Bangladesh Institute of Development Studies, "Strategy for Development of the SME Sector in Bangladesh", Dhaka, January 2014.

A snippet of Strategy for SME Development, 7th Five year plan

Government has adopted a three-step strategy for the development of the SME sector of the country.

- The first step relates to the consolidation of the naturally developed capabilities that mainly serve the domestic market.
- The second step focuses on making the entry of SMEs into the export market easier.
- The third step emphasises the enhancement of capacities to thrive into the global market.

that there is a considerable opportunity cost involved and effort required from the trading community to visit a bank branch that is located at some distance. MFS in this regard can definitely provide an opportunity to serve this untapped potential of rural Bangladesh.

The Bangladesh Bank has already introduced several schemes and programmes for MSME Enterprises to flourish and expand. Funded by Bangladesh Bank, IDA, and ADB, a refinance scheme has been facilitated for the development of SME Sector. Bangladesh Bank has also taken diverse steps to ensure institutional financial facilities under easy conditions, such as opening a 'dedicated desk' for SMEs and an 'SME Service Centre' in the banks, as well as special facilities for women entrepreneurs[18]. The government and policymakers recognise MSMEs as a major driver of the economy. As a result, they have prioritised MSMEs in all policy documents and regulatory schemes.

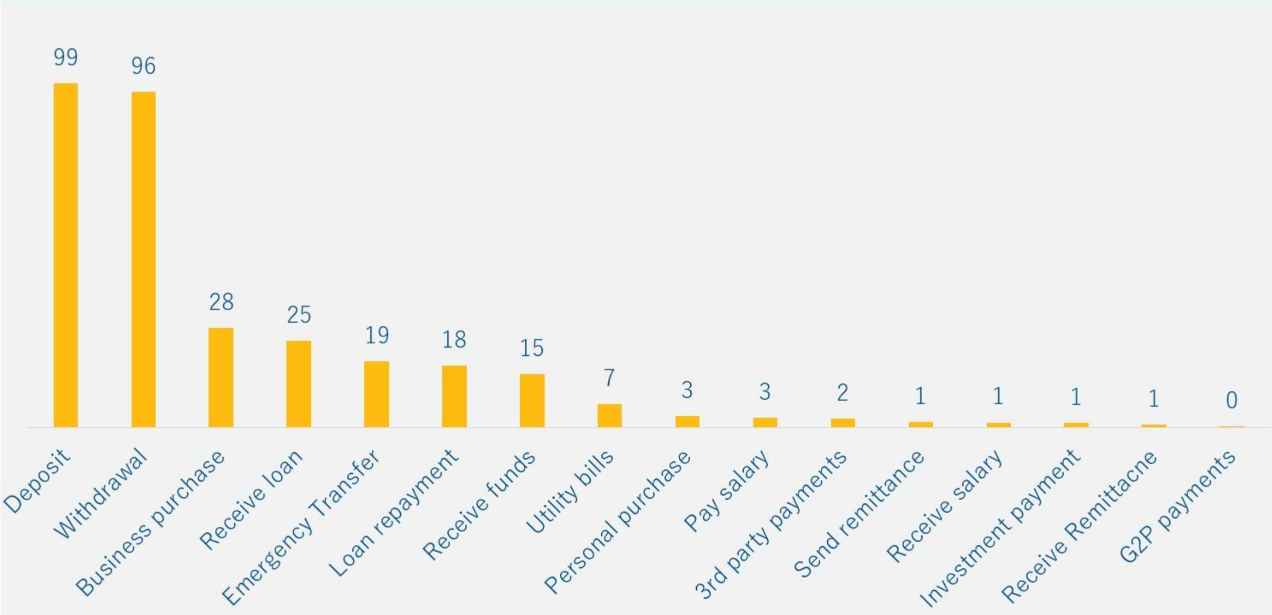
The SME Foundation is in the process of finalising the new definitions of Cottage, Micro, Small and Medium Enterprises (CMSMEs) for Bangladesh. Our discussion with SME Foundation suggests that based on the new definitions, the number of cottage enterprises[19] is likely to increase significantly.

2. Financial Behaviour of MSEs

a. Financial and Payments Products and Services Used by MSEs

Most MSE owners across Bangladesh are well aware of the various financial products and services available to them through multiple channels. They use a wide range of financial services such as savings, credit, insurance,

Exhibit 5: MSE owners, who have a bank account, visit banks mainly for deposit and withdrawal services (in %)



N = 365 MSE respondents with bank accounts

[18] Bangladesh Bank, "Small and Medium Enterprise (SME) Credit Policies & Programmes", 2014
[19] Cottage industry is a small scale industry often operated out of home, rather than out of a factory. They often focus on labour-intensive goods.

term deposits (commonly termed as Deposit Pension Scheme (DPS)), group loans and pension schemes. They also use a bouquet of payments products such as money transfers, remittance, merchant payments, and utility bill payments. However, only 25% or of the MSE owners who were surveyed visit the bank for these services.

Our quantitative study highlights that almost all MSE owners visit banks mainly for deposit and withdrawal services. There are minor differences on purposes of use across types of business and geography. MSEs in manufacturing (29%) and services (28%) are more likely to use their account for making business purchases compared to agriculture (18%). Those in manufacturing (16%) are less likely to send emergency funds to individuals compared to those in the services (22%) and agriculture (25%) sector. Those in agriculture are also more likely to receive emergency funds from individuals (21%) through accounts compared to those in manufacturing (10%) and services (15%). MSE owners in agriculture (29%) receive their loan disbursement through accounts. Those in manufacturing (29%) and services (27%) also have a similar amount of usage.

Most respondents cited a lack of awareness as the main reason for not using their bank account for third-party financial services, such as insurance, tax payments, and term deposits. Some respondents opined that they generally prefer cash to make any personal purchase or paying/receiving wages and salaries. None of the MSE respondents received any government payments or benefits in their bank accounts.

Other financial service providers accessed by respondents include MFIs, ROSCAs/*samities*[20] and co-operatives. A comparative analysis of the various channels that the MSEs access is presented below.

Key Characteristics of Non-Bank Entities Providing Financial Services to MSEs

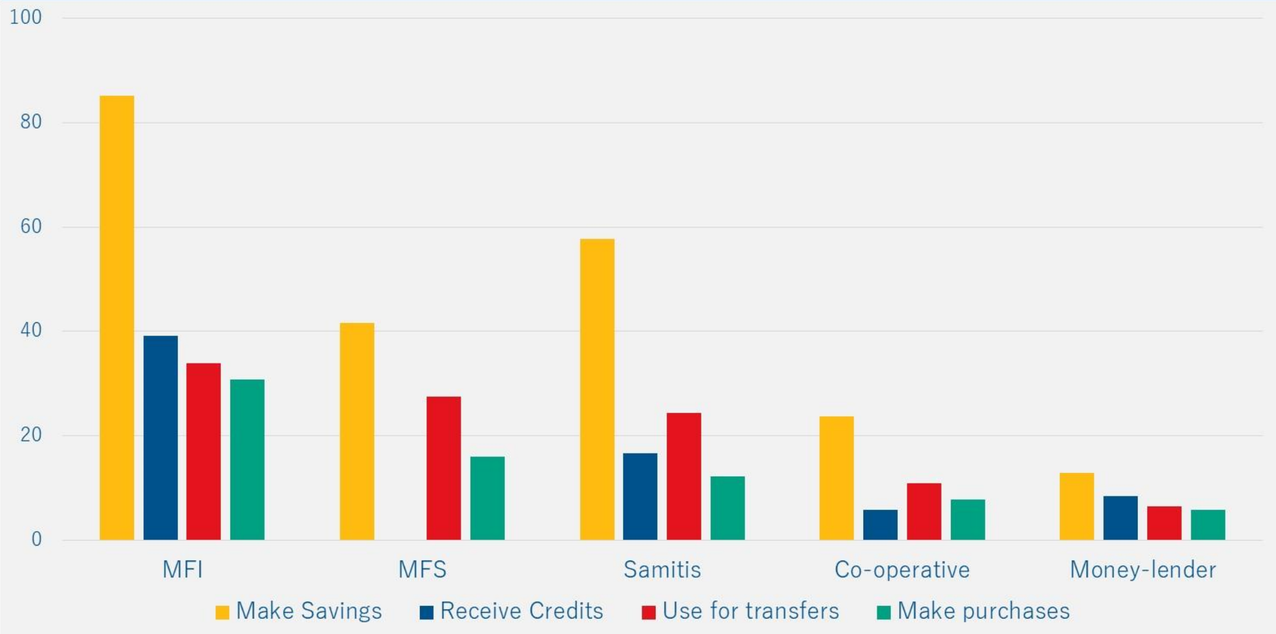
Key Characteristic	MFI	MFS	ROSCAs / Lottery '*Samities*'	Cooperatives
Prevalence location	Rural	Country-wide	Country-wide	Country-wide
Products / services used	Primarily credit, but savings is accessed as well	Primarily P2P transfers, then payments	Primarily savings	Primarily savings, but credit is accessed as well
Access mechanism	Transactions in person	Agent-assisted	Transactions in person	Transactions in person
Frequency of use	Primarily weekly, but some also access monthly	Primarily weekly once, but some use it more than once	Primarily weekly, but some also access monthly	Primarily weekly, but some also access monthly
Duration of use	Mean of 3 years	Mean of 1.5 years	Mean of 3 years	Mean of 3 years

With the exception of MFS providers, most MSEs avail the services of various service providers for savings and credit. Respondents reported accessing informal moneylenders for credit. The mean length of use in such cases is almost four years, which is the maximum among other financial service providers. MFS providers do not lend credit to its users. Almost nine out of ten respondents availing MFI services use them to maintain their deposits. Of the MSE respondents, 40% use MFIs to receive credit. Further analysis suggests that MSEs in the manufacturing sector (79%) are more likely to use MFI for receiving credit than the service sector (56%) and agriculture sector (22%). MSEs in agriculture are 10% more likely to use their savings at an MFI to transfer funds to individuals than in the services (34%) and manufacturing sector (11%).

According to MRA[21], the saving-to-borrowing ratio of a microfinance client is almost 80%. However, our study (exhibit 6) finds this ratio of around 47%. The MFI clients normally consist of low-income household's female

[20] *Samitis* are informal lending groups similar to ROSCAs, where the group members receive credit basis rotation.
[21] Microcredit Regulatory Authority, NGO-MFIs in Bangladesh, Volume VIII, Dhaka, June 2011

Exhibit 6: MSEs availing financial services from different non-bank sources (in %)



N = 156 MSE respondents who have access to non-bank financial sources

members. In our study, only 10% respondents were female MSE owners/proprietor. Therefore this data may not match to the MFI data.

Besides MFIs, every six among ten MSEs access *samities* to save. They use these savings for making business purchases and transferring funds in emergencies. Only 10% of the MSEs visit moneylenders. They receive emergency funds from moneylenders to repay their loans from other providers. One in five MSEs use cooperatives for savings, and only 10% of the MSEs use it for emergency transfers and for making business payments.

Among MSEs that use MFS, owners/proprietors actually withdraw more funds (95%) than keep the deposits (86%). Most deposit/savings are made essentially to transfer funds (57%) to someone or for receiving funds (47%) from someone or to make business purchases (42%). Notably, in the agriculture sector, MFS users are more likely to use these services (80%) than manufacturing (33%) and services (44%) sector.

While the requirement of MFS products and services remain similar across different sectors of MSEs, the requirement for transaction volume and limit varies across enterprises, that is, cottage, small- and micro-enterprises. For instance, a few MSE owners highlighted that their daily working capital is approximately ten times the transaction limit currently set for MFS by the Bangladesh Bank. Under the existing limits, the MSEs cannot accept more than BDT 15,000/day (cash-in) and send more than BDT 10,000/day (P2P). Besides, a limitation on the number of MFS transactions (only 20 cash-in and 70 P2P in a month)[22] limits them from conducting transactions on MFS.

Presumably, P2P transfers remain the single biggest use-case for MSEs. These transactions are predominantly made for business purposes. More than 50% MSEs make P2P transfers through MFS to labourers, suppliers, and other backward-linkage entities in the supply chain. Of MSEs, 30% claimed that they also accept payments from retailers, wholesalers, customers, and other forward-linkage entities using MFS. MSE respondents say that these comprise the primary usage of MFS for them. In rare instances, respondents admitted to using MFS to pay school fees for their wards or to repay loans. These aspects point to a need of suitable use-cases in MFS for MSEs, which is discussed in the later part of this report.

[22] https://www.bkash.com/support/tariff-limits/limits

b. Various Channels Accessed by the MSEs

MSE owners have access to both formal and informal channels of financial services. Formal financial services include products and services availed from MFS providers, banks, MFIs, and cooperatives. In contrast, the products from ROSCAs/Lottery *samitis*, moneylenders, and other unregulated service providers are classified as informal financial services. In Bangladesh, people prefer formal channels for capital expenditures, such as purchasing land, building commercial places, and other long-term assets. Informal channels are mostly used to address their immediate/short-term requirement such as working capital requirement. Bangladesh Bank[23] has created a one billion BDT fund to re-finance the loans offered to cottage, micro- and small-category enterprises. These refinance facilities are provided to banks and other formal financial institutions. While most MSEs are aware of the credit facilities that these financial institutions provide, they are unaware of the fact that the Bangladesh Bank re-finances them.

72% of the MSE respondents have savings bank accounts.

Our quantitative data (sample size of 505 respondents) suggest that 72% of the MSE respondents have savings bank accounts. The ownership of accounts vary significantly with respect to the nature of business. 86% of the MSE respondents in manufacturing and 82% respondents amongst service sector own a bank account. Respondents in agriculture sector lag behind with 58% reporting having a bank account. In terms of geography, 60% of the respondents in rural areas own a savings bank account, whereas in urban areas more than 75% of the respondents own a savings bank account.

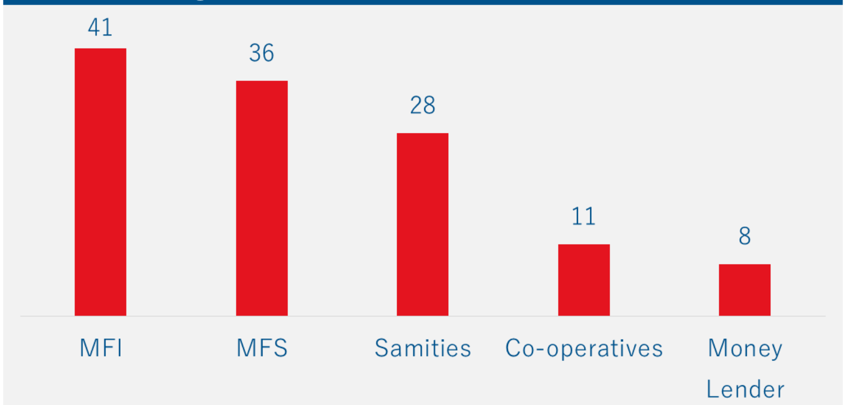
The MSE respondents who are users of MFS are more likely to own a savings bank account. Of the total MSE respondents, 28% do not have access to bank accounts.

64% of MSEs, who use MFS, lack access to other financial service provider s(excludes bank)

It is, however, surprising to find that 64% of MSEs, who use MFS, do not have access to any financial service provider, excluding the bank. This unmet demand is an opportunity for the MFI and MFS providers to target the MSE segment and offer them better financial products and services compared to existing products available in the market.

Of all the MSEs who use MFS, only 36% access other FSPs. Only two-fifths of the 36% utilise MFIs[24], significantly for savings and credit. Only 10% of MSE respondents, who use MFS, have access to *samities*. A mere 4% of MFS users have access to cooperatives, mostly for their personal and business use.

Exhibit 7: Only two-fifth of MSEs using MFS access MFI, mostly for credit and savings (in %)



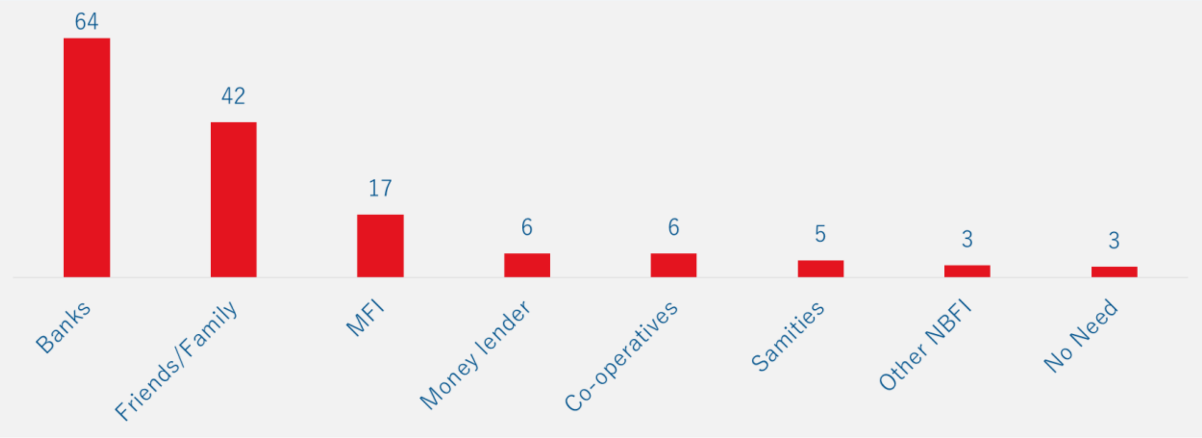
n = 101 (MSEs using MFS and accessing FSPs except bank)

The MSEs have access to both commercial and state-owned banks depending on their location. Notably, most MSE owners do not have any specific preference towards any particular bank. Their need is to avail the best interest rate from any bank, especially for the credit product. Generally, MSE owners are not concerned with features like good customer service and ease of access, as long as they get a favourable deal from the bank.

23 Bakht, Z., Basher, A. (2015). Strategy for Development of the SME Sector in Bangladesh, Bangladesh Institute of Development Studies
24 MFIs are micro-finance institutions that provide financial services with a more rural-focussed coverage. These institutions operate either as nongovernmental organisations (NGOs) or as projects implemented by international NGOs.

Banks (64%) clearly stand out as the first preference for credit among MSEs. In formal finance, MFI or micro-finance organisations (17%) are preferred over cooperatives.

Exhibit 8: Most MSEs prefer banking channel to receive credit (in %)



n = 279 (MSE respondents using MFS)

Among informal sources, MSE owners prefer to receive credit or an emergency loan from friends or family, rather than from *samities* or moneylenders.

Group and business loans for MSEs are the flagship products offered by MFIs. Moreover, most MSE owners prefer availing loans from MFIs as compared to banks. This is due to the stringent documentation and verification procedures required by banks. A few better-known, leading MFIs, such as ASA Foundation[25] provide both life and health insurance.

71% of MSE owners said that they use MFS to make payments to their vendors, suppliers, transporters, labourers, and logistics clients. They also use MFS to receive payments from their retailers, wholesalers, and customers through MFS agents. They feel that MFS is the most frequently accessed channel for transferring low ticket size-exchanges and prefer it over banks. While MSEs in the agriculture sector do access cooperative societies, customers approach cooperative societies primarily for credit products due to the low interest rates offered.

Besides MFS, informal channels, such as courier services, *samities* or local moneylenders enjoy popularity among customers. These channels are used primarily to send money, receive instant credit, and are managed by local proprietors, local traders, and *hundi*[26]. Some MSEs trust their family members, relatives, and friends to cater to their immediate fund requirements. Prime reasons to access various informal channels include:

- Ubiquitous presence of *samities, hundi*, and moneylender
- Instant access to these channels
- Zero or low collateral
- No documentation and KYC (know your customer) hassles

Respondents are willing to pay a higher interest rate to access these channels. They feel that it is better to pay a premium than losing their business income and affecting their relationship with the business partners. For MSEs, their reputation and status in the market among customers and suppliers are extremely important and cannot be compromised.

For an MSE, the choice to access a particular channel varies on the basis of requirement, time, and demand for financial services. This points to the aspect that presently MFS providers deliver services limited to

[25] More details available at http://www.asa.org.bd/insurance-products/.

[26] *Hundi* or *hawala* is prevalent as an informal process of sending remittance in Bangladesh. The most popular reasons behind the preference towards *Hundi* system is minimal transaction charges, its fast delivery and the opportunity to maintain confidentiality. *Hundi* is also known as *hawala*.

payments and transfers. This means that MFS providers do not deliver other important use-cases, such as regular credit, emergency credit, and working capital loans.

The access to formal and informal channels also depends on the seasonality of the business that the enterprise conducts. For instance, the floriculture business is at its peak from January to March in Bangladesh. During this period, a florist requires a high amount of capital for investment. Due to high demand, they cannot afford to spend their time waiting at the bank or waiting for the MFI staff for their routine weekly visit. Though expensive, informal channels provide an instant solution to most of their requirements.

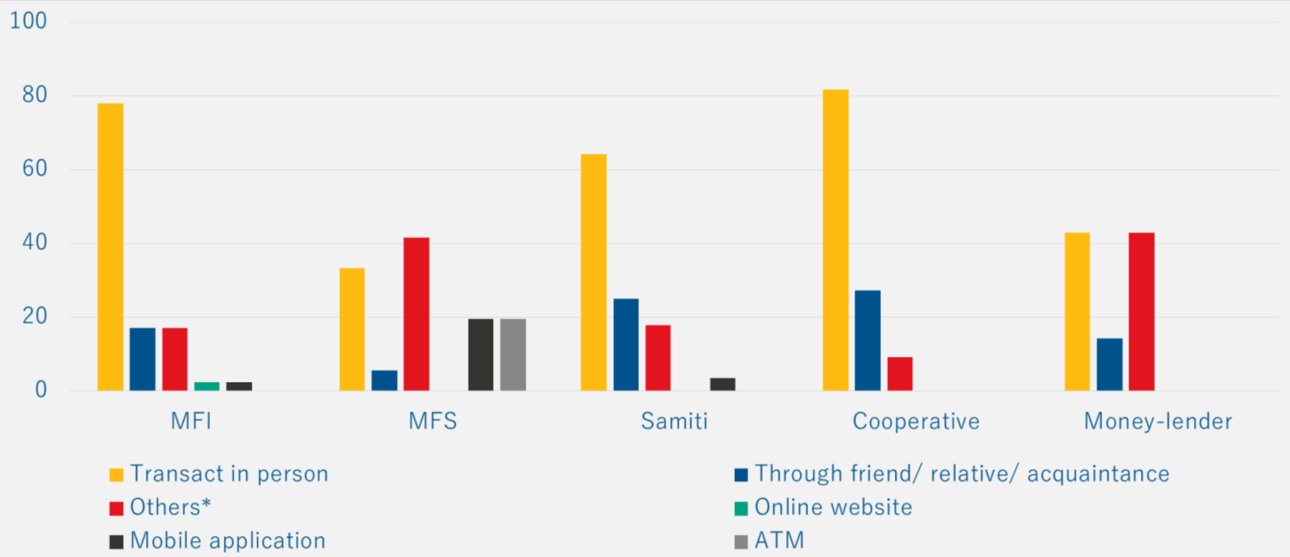
Similarly, enterprises such as MFS agents, travel agents, wholesalers, warehouse owners, and garment manufacturers experience varying demand through the year. Therefore, to access funds from formal financial providers, MSEs need to be mindful of the challenges, such as uncertainty in business volumes, documentation hassles, and lack of support from financial service providers.

In a few cases, MSE owners prefer to use mobile banking to conduct transactions. However, this preference is mostly for high-value transactions. A few respondents, such as small-scale traders and manufacturers revealed a need for online banking services. They feel that this service will be well-placed to serve their business payment requirements. Online payment services or internet banking services have higher transaction limits compared to MFS. These small traders and manufacturers can access these services anywhere without any geographical limitation. However, most MSEs remain unaware of the internet banking facility that banks provide.

c. Types & Modes of Transactions Conducted by MSEs

The preference for a particular access channel to avail a financial service varies considerably among MSEs. Most MSE respondents prefer to transact in-person at MFIs (78%) over a local *samiti* (64%). Around 80% of micro-enterprise owners prefer to transact in-person, compared to 60% of small MSEs. 39% micro and 46% small enterprises prefer to use MFS through OTC services. One-third of MFS users require agent assistance to conduct transactions. Only one-fifth of the MSEs using MFS to withdraw their mobile money funds from ATM points.

Exhibit 9: Two-fifth MSEs using MFS require agent assistance to conduct transactions (in %)



n = 279 (MSE respondents using MFS); *Others include using agents for availing MFS, field staff for MFI, and Samiti and agents for money-lenders

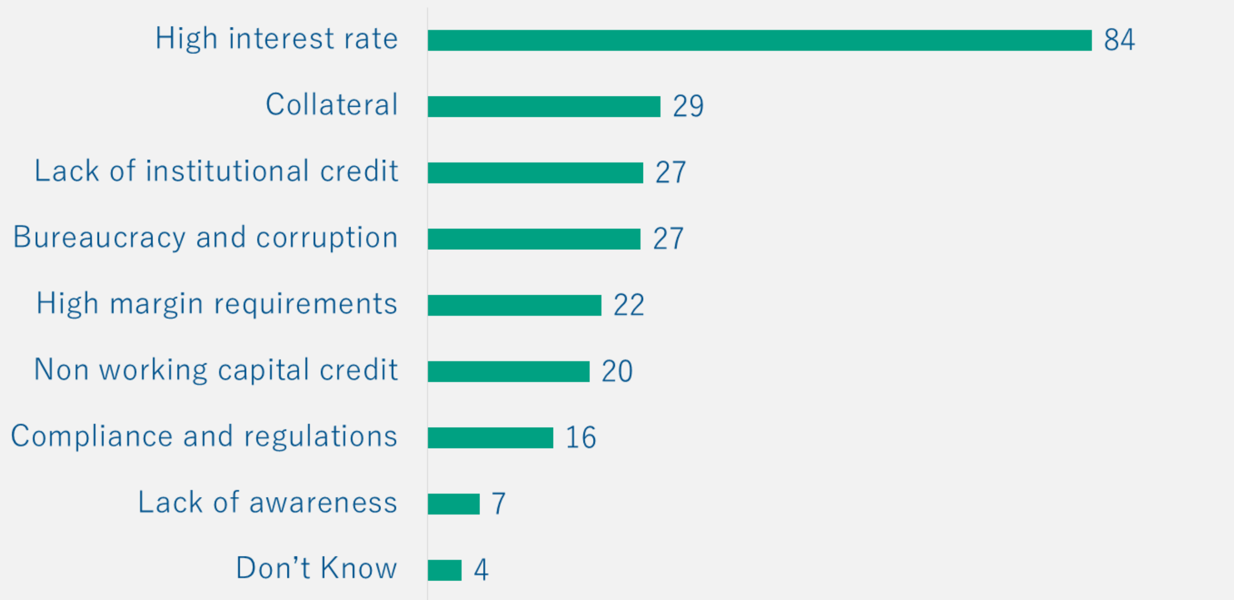
Most MSE owners mention that cash remains their primary medium of transaction. While there is no denying the fact that digital financial services have made in-roads across Bangladesh, cash-based transactions still remain the first choice for most customers. Cash, cheque, or direct deposit to bank/MFA account are the most common modes of payment to various stakeholders involved in the MSE supply-chain.

For small MSEs, such as pharmaceutical wholesalers, the field-executives mentioned that MFS is used for daily collections from vendors. They prefer on using MFS as it is less-time consuming compared to the bank. In case they visit a bank, it takes an entire day to get the funds. However, the current daily transaction limits of BDT 15,000 (USD 180) for cash-in and 10,000 BDT (USD 120) for cash-out compels them to use the banking channel.

Similarly, for micro MSEs involved in fish farming or fabric manufacture, MFS is an easier mode to transfer money, especially considering the widespread presence of the agents. It is also safer for an MSE owner to transfer using MFS and avoid the risk of theft and robbery, rather than holding cash.

3. Challenges Limiting the Usage of Formal Financial Services among MSEs

Exhibit 10: Most MSEs consider high interest rates on credit as a significant barrier to access formal services (in %)



n = 279 (MSE respondents using MFS)

Based on the quantitative study, four-fifth of both micro and small MSEs consider high interest rates on credit as the key barrier to access formal services. In addition, the requirement of collateral/loan guarantee with fixed asset (29%), lack of institutional credit and corruption/bureaucracy (27%) are likely to be bigger issues than rigid compliance (16%). Issues, such as the non-availability of working capital credit (20%) and high margin payment requirements (22%) are likely to be higher for MSE using MFS. For non-users, these issues stand at 18% and 6%, respectively.

Through our qualitative and quantitative research, we identified some of the key problem areas in the access to formal finance, as explained below:

i. Cumbersome Process to Open a Bank Account

Most MSEs transact in their daily business through a current account. While the Bangladesh Bank has mandated the use of current accounts for business, the process of opening an account is cumbersome. There is an inconvenient documentation process, and the banks also follow a strict procedure of background check before a new current account can be opened. This makes opening a current account an uncomfortable experience for MSE owners.

> *"Bank people ask for lot of documents to get any financial service from them. These documents may be required, but the process should be made much easier for us."*
>
> A jewellery shop owner in Chittagong

The respondents believe that a few rules at banks, such as the requirement of KYC are redundant. These procedures are time-consuming and sometimes complex. They also express that it is difficult for illiterate customers to understand the process and the bank staff do not cooperate in explaining the processes in detail. A section of the MSE owners feels that such unpleasant experiences lead to apprehension while visiting a bank branch.

ii. Inconsistent Policies to Avail Credit

Banks are the first choice for MSEs to avail credit. Respondents feel that banks are a trusted source of finance and can provide credit at lower interest compared to MFIs and other formal or informal channels. MFI customers, who provide credit to micro MSE proprietors feel otherwise. It is understood from the fact that 46% of micro MSEs receive services from MFI compared to only 22% of small MSEs who are members of MFI. However, applying for a loan at a bank is a cumbersome and increasingly complex process. There are a large number of pre-requisites (such as background checks, location verification and transaction history analysis) that need to be satisfied and an extremely long gestation period of at least 15 days (sometimes it crosses beyond three months) from application to sanction. In case a loan applicant does not have an existing relationship with the bank, the amount of collateral needed for loan sanction increases dramatically. There is no standard procedure for providing credit and banks design policies that are suitable to their particular business requirements. Some banks provide loans based on the amount of collateral/loan guarantee, while in a few cases, banks check the transaction statement for the previous six months.

While these are a few of the known criteria, there are many unwritten aspects that banks demand before granting a loan. A few such aspects that respondents mentioned are social affiliation, availability of daily working capital, the social conduct of the MSE, and family demography of proprietor/owner (if any). For this specific reason, MSE owners feel confused and apprehensive while considering banks as a source of credit.

iii. Limited availability and accessibility of bank branches

Most MSEs indicate that it is difficult for them to visit a bank branch personally as bank branches are few in the rural and semi-urban areas. There are never-ending queues at the bank branches. This requires more time for transferring money or depositing cash. To visit a branch outlet means losing a day's business. There is a huge opportunity-cost and effort involved. The MSE respondents mention they have to travel **around four to five kilometres** on an average to reach a bank in a rural or semi-urban area. This will be lesser for an MSE in an urban area. The working hours of the bank also do not suit the MSE owners. They also feel that bank timings do not meet their requirements. The transaction window is open until 5 pm in the evening. For requirement after 5 pm, they need to scout for other financial service providers, such as MFIs, MFS agents or informal channels.

> *"In rural areas of Jessore, it is difficult to find a bank branch outlet. We have to travel five kilometres to visit a bank. Do you think we have so much time to spend?"*
>
> A wholesaler florist associated with the Bangladesh Flower Society at Jessore

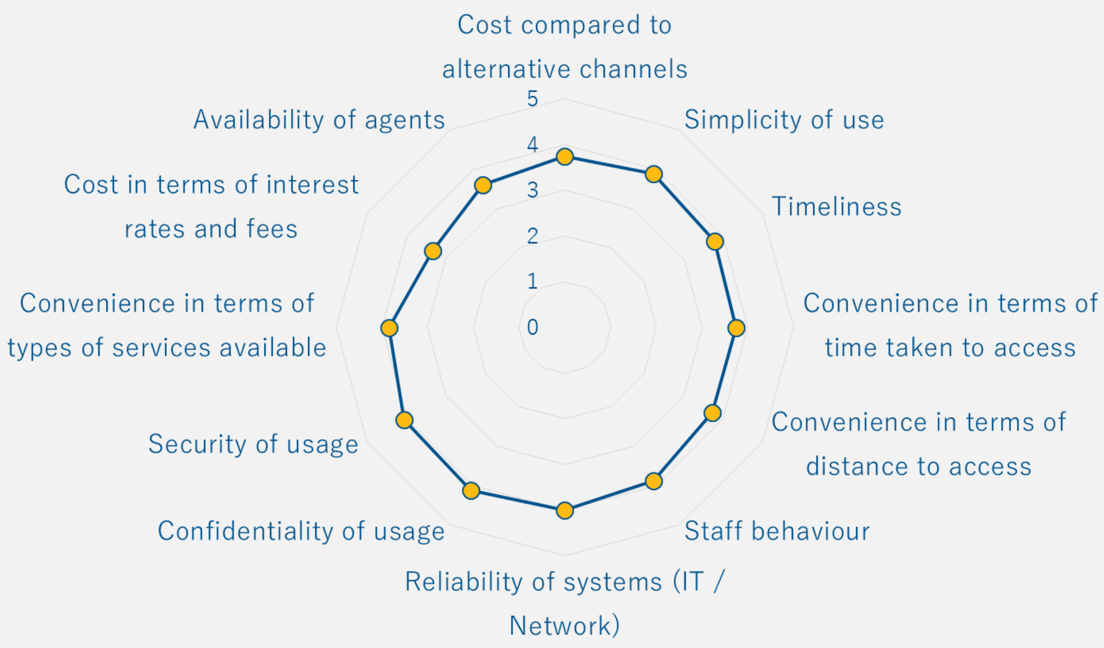
In some cases, Rural MSE owners have had to wait incessantly until a bank branch opened in their vicinity of their establishments. While these MSE owners have tried online banking, they are not that confident as compared to their counterparts in the cities. It is a general opinion that awareness in the metros and district towns is much better compared to rural areas.

iv. High Interest Rates Charged by MFIs

In rural Bangladesh, most micro MSE owners and their family members have ready MFI access. MFIs too, readily offer credit to these family members (mostly through female members). However, the respondents say that the annual rate of interest ranges from 24% to 36%, depending on the term of credit. This is one of the reasons that discourage them from availing MFI services. Often, informal lenders offer credit at the same or higher interest rate and that too without documentation. The repayment modality in the case of MFIs is extremely structured and the repayment is scheduled on weekly basis. MSEs do not find this suited to their type of business. Respondents feel that such repayment terms are appropriate for people who are salaried or have multiple businesses.

MSE owners believe that the cost of accessing banking services is much less compared to alternative channels like MFS, MFI, ROSCA, and moneylenders. Respondents find banks to be simple, timely, and convenient in terms of the time and distance to access banks. The quality of service at a bank is rated high (4 out of a possible 5) on every service and security related aspect. The only exception is the cost of interest rate and processing fees at banks.

Exhibit 11: High interest rate on credit and high processing fees charged by banks are rated as lowest aspects of bank services (mean)



n = 279 (MSE respondents using MFS)

* This graph is rated on a scale of 0 to 5, where 0 is the least preferred and 5 is the service aspect of bank most preferred by MSEs.

4. MFS Product Features that MSEs Demand

The study reveals a clear opportunity for MFS providers to provide credit products with low interest rates (88%). MSE respondents are also more likely to accept financial products where there is no or relaxed requirement for collateral (54%). This signifies that there is a need of suitable micro-credit product in the market. Two-third of the MSEs indicated that a short-term credit product for enhancing their working capital requirement will be a key feature to use MFS.

Considering the high turnaround time for transactions at the banks (15% ask for doorstep delivery of funds), MSEs prefer to use MFS, as it is ubiquitous in terms of availability and accessibility. Specific digital finance products and services that small and micro MSEs demand include short-term credit, micro-insurance for health, shop and life, loan re-payment, payment of taxes to the government, and salary disbursements. A few micro MSEs also wish to have more products, such as school and college fee payments, term-loans, government payments (G2P) and utility payments. The MSEs also express a need for an exclusive business account for meeting their business requirements.

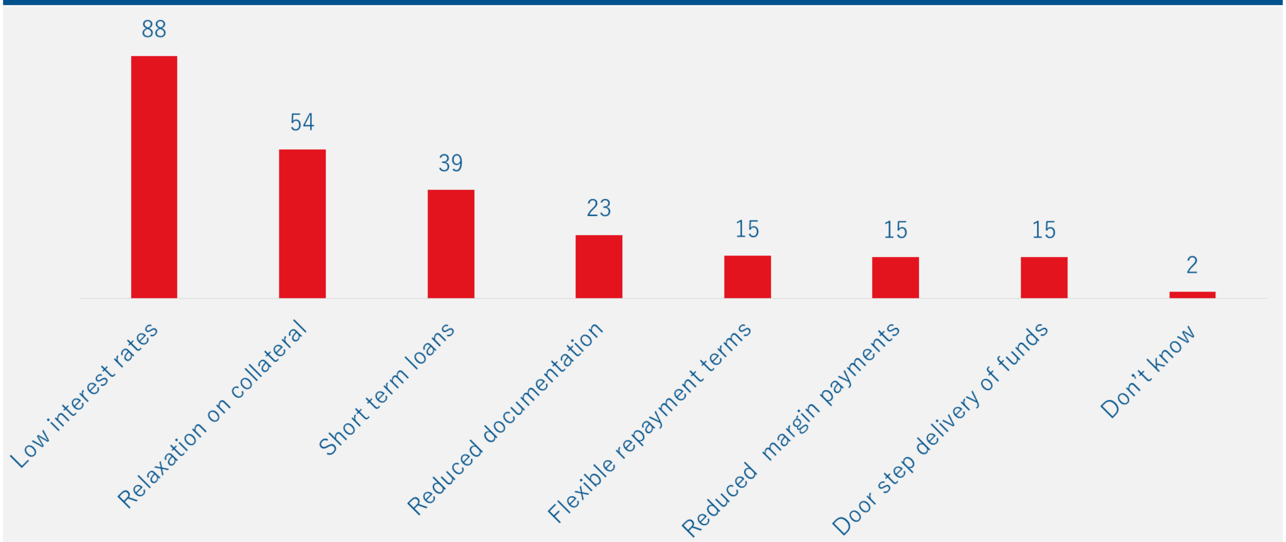
> *"The provider should redesign their credit product for us (rural based MSEs) because our nature of business and operation are different from urban enterprises. We need seasonal credit facility with affordable terms and conditions."*
>
> An MSE owner in Chittagong

MSEs indicate the following key features as some of the reasons for their use of MFS, as per the qualitative study:

- Low interest rate short-term credit product;
- Interoperable MFS services;
- Flexible payment terms for credit products;
- Reduced transactions charges;
- Lower turnaround time for receiving credit;
- Fewer documentation procedures;
- Credit products for all types of established MSE producers and vendors.

It is a common requirement of all MSE owners to receive credit at low interest rates. However, MSE owners are willing to receive credit at interest rate charged at par with banks or the MFIs, provided that in using MFS, the credit-line is established for them and they can receive credit as per their requirement.

Exhibit 12: Low interest rates for credit is a key product requirement for MSEs (in %)



n = 279 (MSE respondents using MFS)

3

MFS in Bangladesh

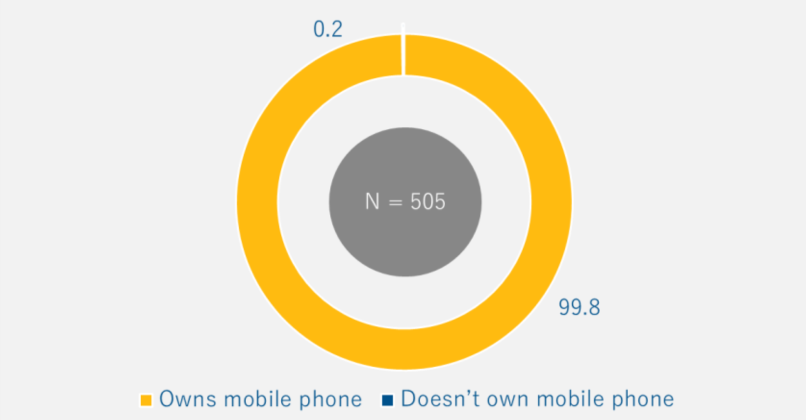
Assessment of Challenges Limiting the Uptake of MFS

MFS in Bangladesh

1. Mobile Phone Ownership

All the MSE respondents own a mobile phone. The proportion of feature phone owners (67%) is slightly higher than those who own smartphones (60%). This shows that among MSEs, the preference for a smartphone is almost similar to feature phones.

Exhibit 13: All MSE respondents in Bangladesh own mobile phone (in %)



N = 505 (all MSE respondents)

Although smartphone penetration among MSEs using MFS is slightly (10%) higher than non-MFS users, the penetration of feature phone among non-MFS users is only 3% higher than MFS users. This depicts a significant potential for providers to increase the uptake of MFS among non-MFS users through application-based MFS solutions.

2. Landscape Analysis of the MFS market

As per a 2014 GSMA report, only 40% of adults in Bangladesh have an account at a formal financial institution[27]. On September 2011, Bangladesh Bank, the central bank of Bangladesh, issued guidelines for Mobile Financial Services (MFS). The guidelines would ensure access to financial services to the unbanked, given the rapid adoption of mobile phones. Only bank-led MFS model is allowed by the Bangladesh Bank. The central bank issues licenses to all banks and permit them to offer the following broad categories of financial services through their MFS platforms:

- Disbursement of inward foreign remittances;
- Cash-in /cash-out using mobile account through agents/Bank branches/ATMs/mobile operator outlets;
- Person to Business Payments – i) utility bill payments, ii) merchant payments;
- Business to Person Payments, such as salary disbursement, dividend and refund warrant payments, vendor payments;
- Government to Person Payments, such as elderly allowances. freedom-fighter allowances, subsidies;
- Person to Government Payments, such as tax and levy payments;
- Person to Person Payments (One registered mobile Account to another registered mobile account);
- Other payments, such as microfinance, overdraft facility, insurance premium, DPS, etc.

Key Facts and Figures

As of May 2017, the central bank has granted licenses to 28 banks to offer mobile financial services. However, only 17 of those banks have started their MFS products in some capacity and of them, just 10 are operational[28].

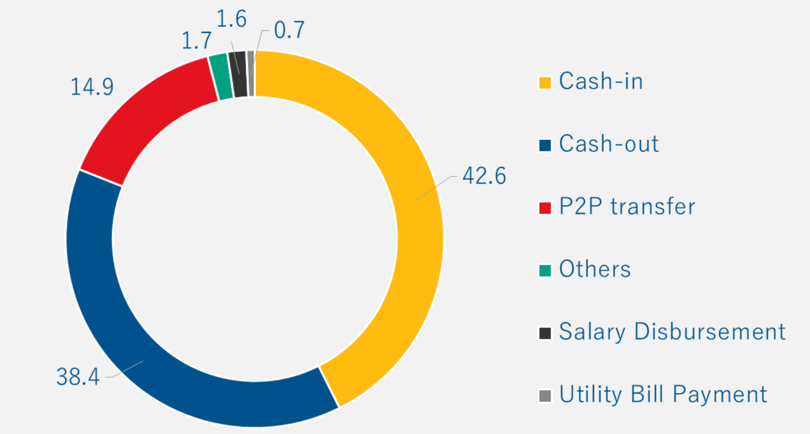
[27] GSMA Intelligence, "Country overview: Bangladesh", August 2014
[28] USAID, mSTAR, fhi360, "Mobile Financial Services in Bangladesh", April 2015

It is well-known that the MFS sector in Bangladesh has achieved significant growth in the past few years. The table below highlights some key facts elaborating the growth of MFS in the country.

Description	Figures as of March 2016	Figure as of March 2017	% Growth (YoY)
No. of agents*	584,912	717,046	23
No. of registered clients (in million)	34.88	50.42	45
No. of active accounts (in million)	14.24	24.57	73
No. of daily average transaction (in million)	4.04	4.89	21
Average daily transaction (in crore BDT)	608.05	807.96	33

Source: Bangladesh Bank
* Represents non-exclusive agents, which means number of unique agents may be significantly low

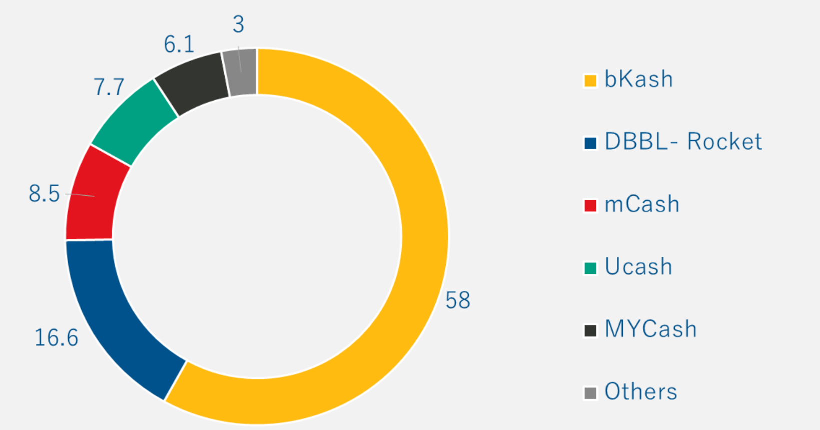
Exhibit 14: MFS account is used mostly for cash-in and cash-out transactions only (in %)



Source: Bangladesh Bank, Data as of March 2017

The graph depicts the break-up in terms of the value of MFS transactions conducted in March 2017. Cash-in and cash-out contribute 81% of the total value of transactions conducted through MFS accounts. Although some providers disburse salaries through MFS, especially to RMG workers, the share of salary disbursement is just 1.62% of the total transactions.

Exhibit 15: bKash and DBBL capture three-forth of the MFS market in Bangladesh in 2015 (in %)



Source: USAID, mSTAR, fhi360, Mobile Financial Services in Bangladesh, April 2015

bKash (58%) and DBBL-Rocket (16.6%) captures about three-fourths of the MFS market (in terms of the number of MFS users). The remaining eight players together cover only the remaining quarter of the MFS space.

The following providers have launched their MFS product in Bangladesh are:

- bKash by BRAC Bank Limited
- Rocket by Dutch-Bangla Bank Limited
- UCash by United Commercial Bank Limited
- MYCash by Mercantile Bank Limited
- mCash by Islami Bank Bangladesh Limited
- Hello by Bank Asia Limited
- IFIC Mobile Banking by IFIC Bank Limited
- FSIBL FirstPay SureCash by First Security Islami Bank Limited
- Trust Bank Mobile Money by Trust Bank Limited
- OK banking by ONE Bank Limited

3. Personal Use of MFS by MSEs

Most MFS users are comfortable in using their mobile phones to conduct financial transactions, such as P2P transfers. In some cases, the staff at an MSE are more confident and comfortable in using MFS for transactions than the owners of the company. While users partially understand flash messages in English, almost all users would prefer a menu in the Bengali language. Among MSE respondents, 94% have accessed the Unstructured Supplementary Service Data (USSD) channel. However, 96% of these respondents use it for checking their airtime balance, followed by other service requests, such as setting caller tune, downloading pictures, etc. However, it is surprising that respondents rarely use USSD to avail emergency balance.

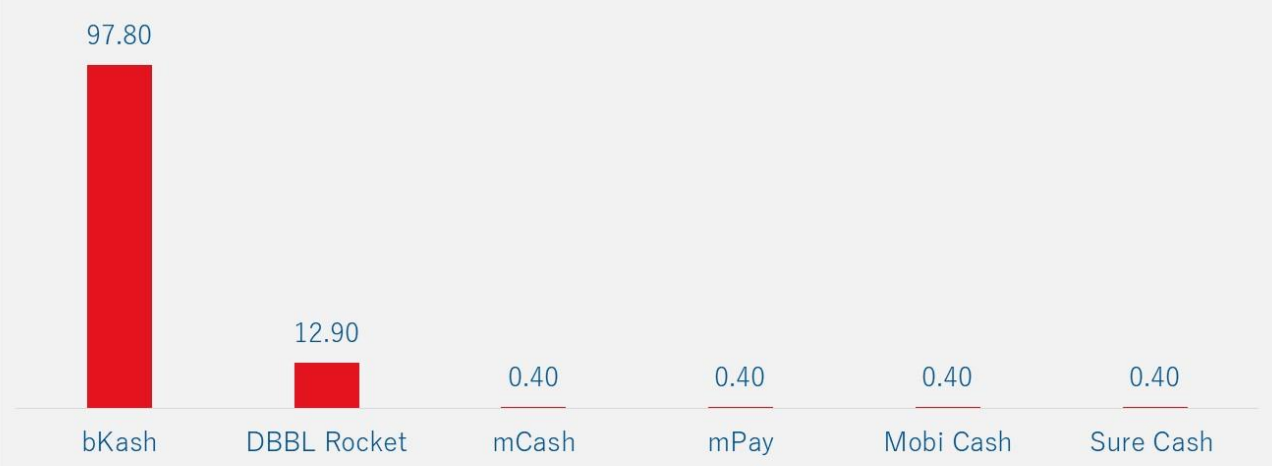
Exhibit 16: There is almost an equal distribution in length of MFS usage among MSEs using MFS for 6 months and more (in %)

Most respondents indicate that they have been using MFS for 12 to 24 months. There are a similar proportion of customers using MFS account for 6 to 12 months, 24 to 36 months, and more than 36 months.

The following graphs share the overall usage pattern in terms of overall usage, geography-based usage and division-wise accessibility of MFS among MSEs.

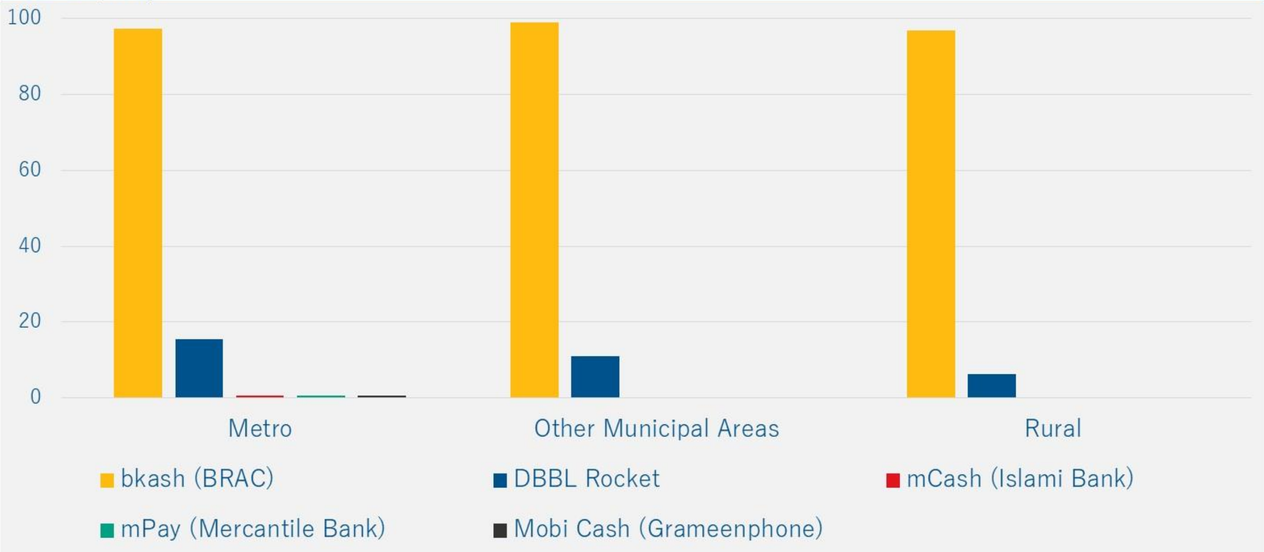
bKash (98%) is universally recognised by MSEs across Bangladesh. At a behavioural level, the primary reason for MSEs to use bKash is 'social proofing'. They confide on the experience of others on using bKash. The respondents also find the geographical coverage of bKash second-to-none. It is widely available and easily accessible in any part of the country. MSEs feel that bKash is almost synonymous with mobile financial services in Bangladesh. The second most widely used MFS provider is DBBL Rocket (13%). There exists an insignificant proportion of users who avail services of other providers, such as mCash by Islami Bank, mPay by Mercantile Bank, MobiCash of Grameenphone, and SureCash.

Exhibit 17: Most MSEs have used mobile financial service of bKash (in %)



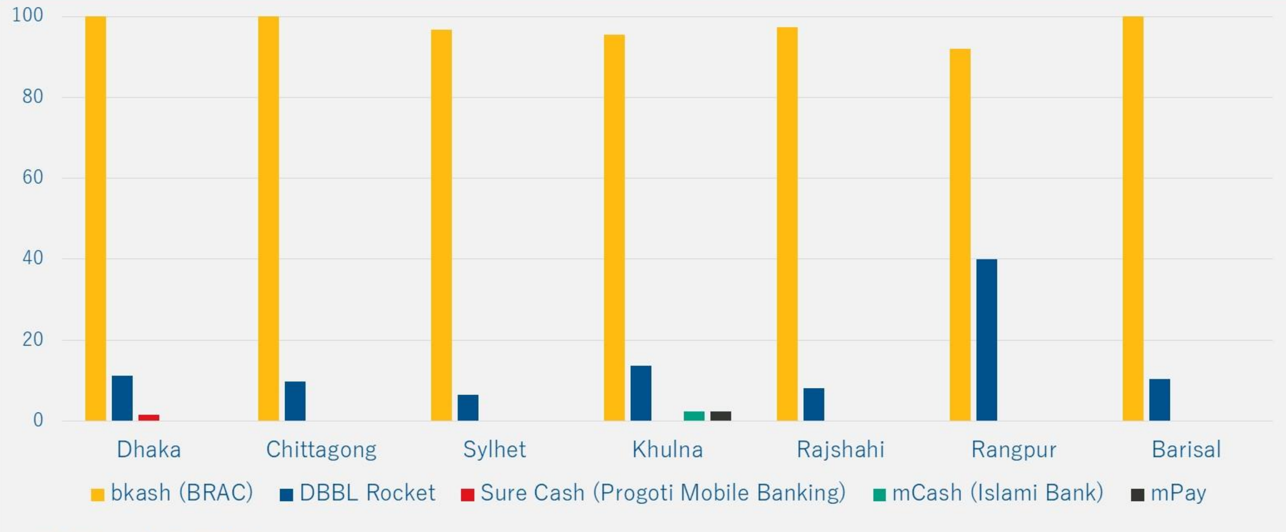
n = 279 (MSE respondents using MFS)

Exhibit 18: An insignificant number of MSEs avail MFS services from providers other than bKash and DBBL Rocket (in %)



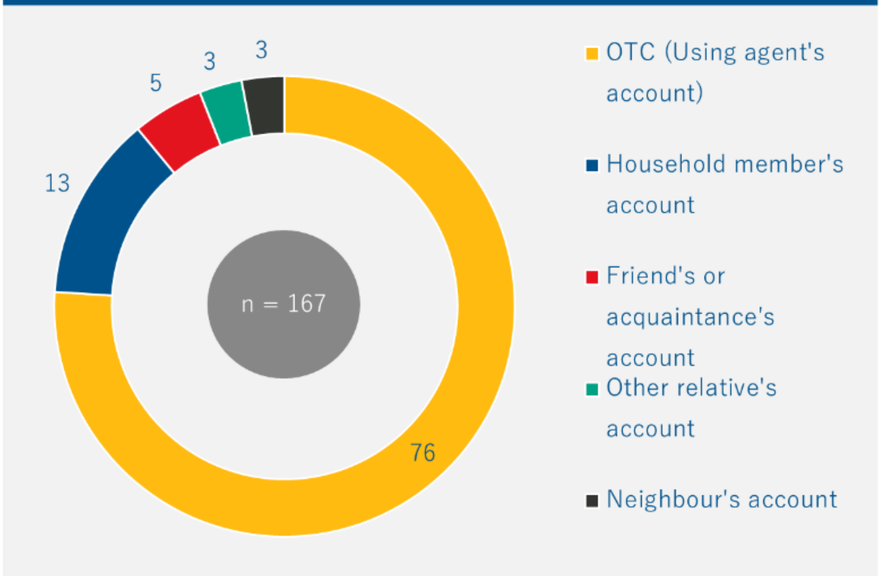
n = 279 (MSE respondents using MFS)

Exhibit 19: There is not much variation in terms of provider-wise usage across Divisions in Bangladesh (in %)



n = 279 (MSE respondents using MFS)

Exhibit 20: Most MSE owners and staff prefer OTC services (in %)



n = 167 (MSE respondents NOT using MFS)

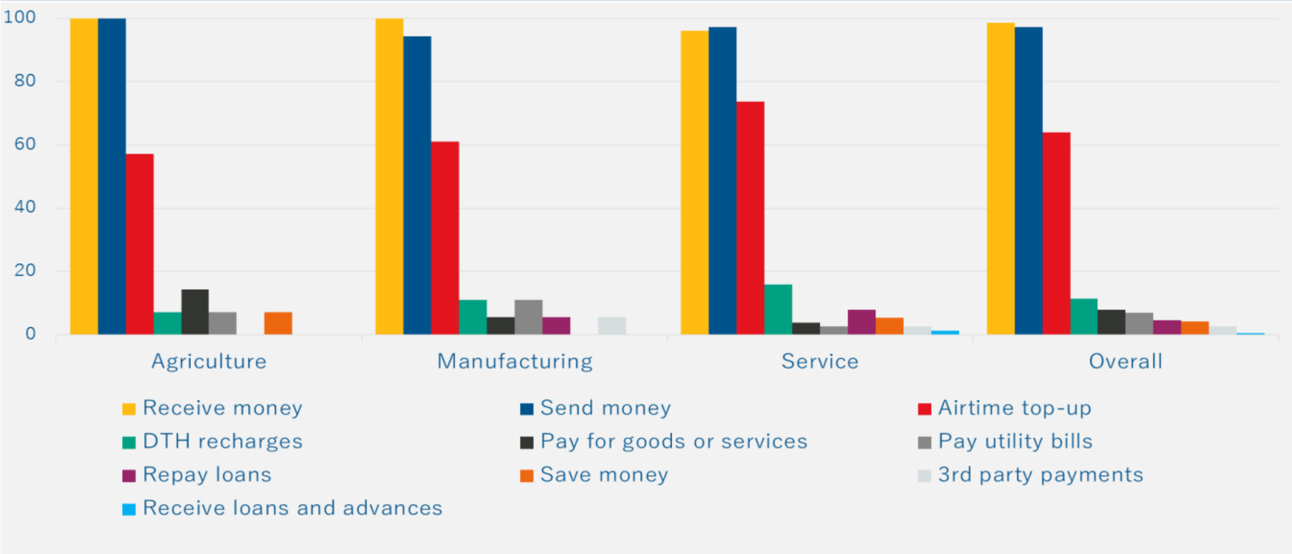
Of MSEs, 40% have a registered MFS account, while the remaining 60% access MFS through agents account (over-the-counter) and/or family or friends' MFS account. Over-the-counter (OTC) usage prevails not only among non-registered MFS users (76%), but also equally among the registered MFS users (71%). Such transactions, where an agent conducts a transaction using customer's MFS account, is termed as partial-OTC.

In most cases, MSE staff prefer to conduct agent-assisted transactions due to a lack of knowledge on the use of MFS. Only a few MSE owners and staff use their own MFS accounts. However, most of the transactions are conducted for personal, and not business purposes.

As mentioned afterwards in *Exhibit 21*, deposits (cash-in) and withdrawals (cash-out) remain the primary use-cases for MSEs. A few of them use MFS for airtime top-up and utility bill payments. The types of OTC services used by MSEs are also similar in nature. For instance, sending (99%) and receiving money (95%), followed by airtime top-ups (12%) are the main services used over-the-counter.

40% of the MSEs using MFS, have registered personal MFS accounts

Exhibit 21: For registered MFS users, P2P transfers and airtime top-up are the biggest use-cases (in %)

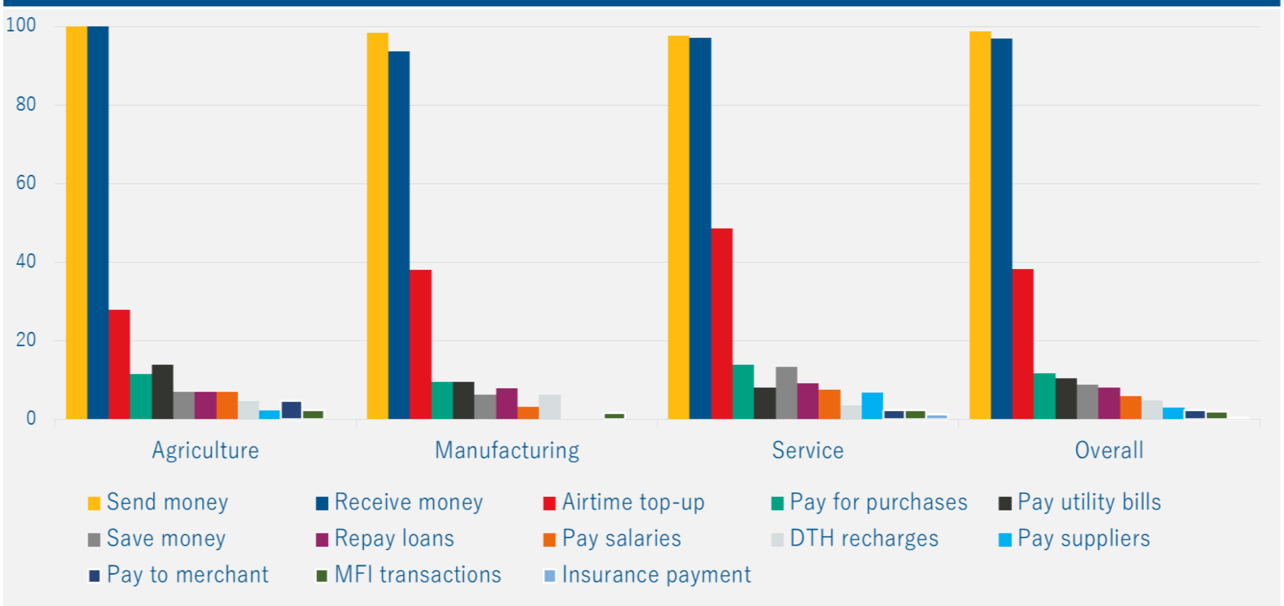


n = 279 (MSE respondents using MFS)

All registered MSE owners/proprietors send and receive money from their family members, friends and business partners. They generally exchange these funds for emergency requirements. There are some specific use-cases where MFS is used for business transactions as well. This is explained in detail in Section 4. Overall, few MSEs are aware that they can use MFS for many other types of transactions, such as paying salaries, loan repayment, and payment to vendors/suppliers.

In terms of awareness (see Exhibit 22), the products that MSE owners can recall the easiest are P2P transfers are P2P transfers and airtime top-up. Although the rest of the use-cases are not significant to MSEs, only a few MSEs are aware of the payment use-case at merchants.

Exhibit 22: Most registered MFS users are aware of P2P transfers through MFS account (in %)



n = 112 (MSE respondents registered on MFS)

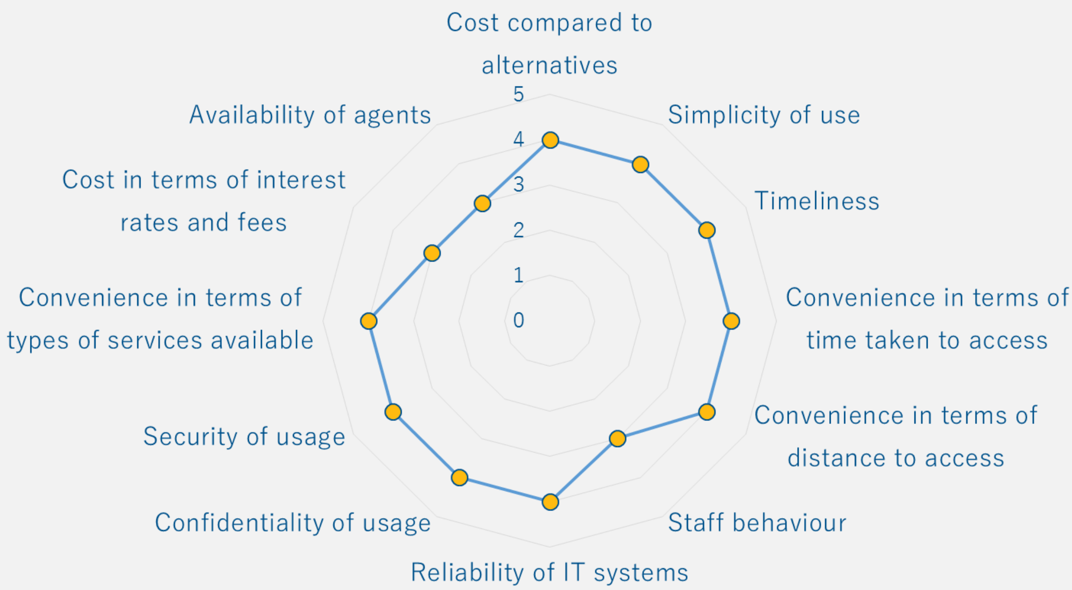
Exhibit 23: Frequency of MFS usage among MSE users depends more on their requirement (in %)

n = 279 (MSE respondents using MFS)

No fixed pattern of usage of was observed among the MSEs having a registered MFS account. The frequency of use among MFS users depends more on their requirement. Almost one-fourth of the MSEs use MFS more than once in a week. This shows that most of the MSEs who have used MFS, use it quite frequently.

Interestingly, various service aspects of MFS* (see *Exhibit 24)* received a median score of 4 out of a possible 5 by the registered users. This rating is consistent across variations in locations and nature of businesses of MSEs. The only exceptions are the cost of MFS services, availability of the agents, and the behaviour of MFS staff members, where users gave a median score of 3. MFS providers need to ponder upon the agent accessibility and availability besides training their staff members for an enhanced customer behaviour.

Exhibit 24: Aspects such as cost of MFS services, availability of the agents and behaviour of MFS staff members are rated low by MSEs registered on MFS (median)

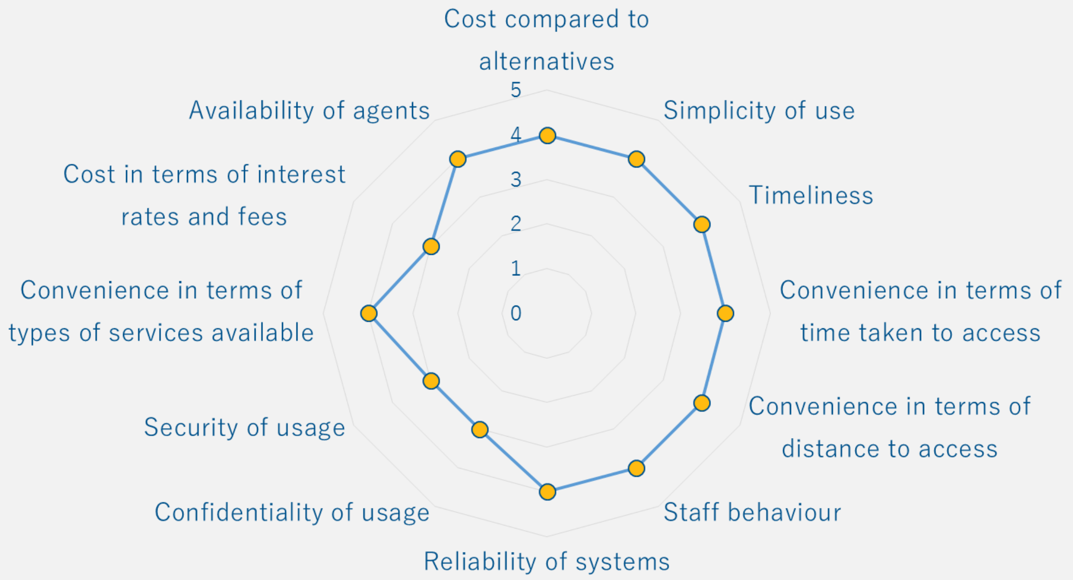


n = 112 (MSE respondents registered on MFS)

* This graph is based on ratings by **MSEs who are registered on MFS**. The scale ranges from 0 to 5, where 0 is the least preferred and 5 is the most preferred service aspect in MFS.

The rating by non-registered MFS users (see *Exhibit 25)* is consistent across different types of locations and nature of MSE businesses. Non-registered users gave a score of 3 to confidentiality and security of MFS-use. This implies that the users of OTC services are not comfortable in exposing their transaction behaviour to the agents and are concerned about the security of funds.

Exhibit 25: Confidentiality of usage and fund security are the critical factors which worry MSEs accessing MFS through agents (median)



n = 167 (MSE respondents registered on MFS)

* This graph is rated by MSEs who are not self-registered on MFS but access MFS through agents (OTC). The scale ranges from 0 to 5, where 0 is the least preferred and 5 is the most preferred service aspect in MFS.

KEY CHALLENGES LIMITING THE UPTAKE OF MFS IN BANGLADESH

1.0 Demand-side challenges

- Lack of innovative products in the MFS market
- Insufficient transaction limits
- High transaction charges
- Inadequate knowledge of MFS
- Lack of intuitive USSD user interface
- Lack of interoperability amongst MFS providers

2.0 Supply-side challenges

- Partial understanding between MNOs and MFS providers
- Lack of competition in the MFS sector
- MFS considered as a secondary business
- Narrowed portfolio of MFS
- Lack of required skills in the core project team of MFS providers

3.0 Regulatory challenges

- Multiple, unclear and incomplete regulatory guidelines on MFS
- Ambiguity amongst stakeholders on the supervisory body of MFS
- Limited coordination between regulators
- Absence of bank subsidiaries in the MFS market
- Non-uniform USSD pricing policy for MFS providers
- Prevalence of unrecognised OTC services
- Leniency of regulators towards non-complying MFS providers

4. Demand-side Challenges that Limit MSEs from the Uptake of MFS

i. Lack of Innovative Products

In August 2016, Bangladesh had transactions worth about $1.3 billion per month (about $45 million per day) through MFS, according to data from Bangladesh Bank. However, MFS has been mostly limited to services such as cash-in, cash-out, P2P transfers, salary disbursement, and utility bill payments. However, utility bill payments and salary disbursement hardly cover 5% of monthly transactions. Cash-in/cash-out and P2P money transfers continue to constitute the bulk of the MFS transactions.

> Products like digital credit, loan repayment, and salary disbursement are those are close to the nature of work of MSEs.

Most MSE respondents suggest that MFS providers should introduce new products to attract more and varied customers to adopt MFS. A few of the products that are currently unavailable or sparingly available include tuition fee payment, scholarship payment, credit facility, insurance premium collection, hospital bill payment, monthly deposit against deposit pension scheme (DPS), and monthly instalment deposit. Multiple products can cater to a range of customer segments and create a use-case for each type of customer. This will include even individuals who are MSE owners/proprietors.

While new products provide an opportunity for both customers and MFS providers, it comes at a cost. A provider needs to know the customer segment well to launch a new product. There should be adequate promotion conducted to reach the actual beneficiary of the product. Moreover, there may exist challenges with respect to the existing regulations on transaction limits and the product itself. These factors create barriers for the MFS providers to innovate and test new products.

MSEs require products such as digital credit and loan repayments on MFS. Such products are close to the nature of work that MSEs are involved in and fulfil their financial requirements. With more MSEs using these products on the mobile platform, there will be an increase in the base of MSEs that are registered on MFS. MSEs will also encourage their employees and partners to transact over these products. Social proofing remains as one of the most effective methods in the case of MFS adoption.

ii. Insufficient Transaction Limits

In 2015, after the revised MFS guidelines were announced, the transaction amount was fixed at 20,000 BDT (USD 240) per day for both cash-in and cash-out. However, in January 2017, the Bangladesh Bank reduced the deposit limits to 15,000 BDT (USD 180) and transfer limit to 10,000 BDT (USD 120). As a result, the respondents have been facing considerable challenges in conducting P2P transactions.

In most cases, respondents are forced to visit an agent or make transactions using multiple mobiles. A few respondents shared that they are forced to use the banking channel due to the transaction limitations in MFS, although they prefer MFS providers over banks. The MFS platform provides them with a convenient option to transact anytime, anywhere and avoids the risks associated with holding cash physically.

> Most MSE owners register on MFS with multiple mobile numbers to conduct transactions beyond the daily transaction limits.

Most MSE owners employ some workarounds, such as registering with multiple mobile numbers, to continue using MFS without having to worry about limits. However, these solutions are short-term and MSE owners are well-aware of it. An average daily transaction value of MSEs, especially small industries, easily exceeds the transaction limit of BDT 15,000. In such scenarios, MSEs conduct half the transaction using MFS and the rest through cash payments. The impact on usage is much bigger as the MSE and their partners and employees eventually lose trust on MFS, due to such partial transactions. Therefore, most MSEs resort to MFS channels only during any exigency in the family or business.

Increasing the transaction limits will support MSEs in using MFS for their business on a regular basis. They would not require to visit banks for transfers/deposits and will save their precious time to conduct business. However, the objective of the Bangladesh Bank to curb the transaction limits, may not solve any purpose. Therefore, it is essential to provide a customised limit for MSE owners to mitigate the challenge of limited transaction limit. The MSEs also feel that a business MFS account will help them take up MFS on a much serious note to conduct financial transactions. The report discusses this aspect in detail in Section 4.

iii. Lack of Interoperability among MFS Providers

While the Bangladesh Bank has clearly specified that MFS providers may seek to open their systems towards interoperability, there are hardly any providers who have made such arrangements. The lack of interoperable transactions has made it significantly difficult for customers to use MFS.

> *"Most of the companies from which I procure or purchase products do not accept or do not have the facility for receiving the money through MFS."*
>
> A potato wholesaler in Jessore.

The respondents mentioned that rural customers will benefit the most if interoperability is allowed. The reach of all MFS providers is not the same and only a few dominant players are visible in the last mile. Interoperability will help the MFS providers in not only reaching the last mile but also provide customers with options to access services from multiple MFS providers.

Currently, MSE owners/proprietors do not use or encourage customers to transact on MFS due to a lack of interoperability among MFS providers. In one instance, an MSE owner using a particular MFS service knows about the presence of a different MFS provider at their partner's location located at a divisional headquarters. However, the owner cannot send or receive funds using MFS, as the other MFS player is not located close to his own location and there is no interoperability between the two MFS players. As a result, the most common resort remains the bank. Bringing interoperability will not just uptake MFS among MSEs, but also encourage a consistency to the prices existing in the market due to a healthy competition.

Another reason is lack of interoperability of MFS providers with the banks. MSEs opine that money stored in an MFS wallet is as good as nothing in value unless it is withdrawn. This money neither earns any interest in the wallet nor can the MSE owners transfer the wallet amount to the bank. Therefore, MSEs quickly withdraw any transfer to their MFS account if it is not required for an MFS transaction. A few also fear that the money might get stolen or removed from their wallet if it is kept for a longer duration. In such a scenario, introducing interoperability among MFS and banks is most likely to raise the confidence and trust of MSE owners/proprietors on MFS.

iv. High Transaction Charges

The transaction charges for MFS is much higher when compared to the charges levied by banks. For instance, for a cash-out of every 1,000 BDT (USD 12), an MFS provider charges approximately 20 BDT (USD 0.24). For the same charge of 20 BDT (USD 0.24), one can withdraw up to 50,000 BDT (USD 600) from a few banks. As a result, the MSE respondents expect regulators and MFS providers to make transaction charges more reasonable. These high charges discourage MSEs from using MFS for their day-to-day transactions.

However, transaction charges can be reduced. It would require dedicated motivation from the central bank to the MFS providers by encouraging interoperability. This would also require support from the MNOs who provide their mobile telecommunication network to MFS providers. Currently, the large MFS providers dictate terms and conditions with the MNOs, while the smaller MFS providers bear the brunt of high charges in the existing market. A number of leading MFS providers have been entering into exclusive arrangements with agents that may foreclose competition. This clearly limits competition in any market. The rate of agent exclusivity for Bangladesh is at 44%[29]. This is much less compared to other emerging markets, such as India (89%) and Kenya (87%). But, there is a definite case of excessive pricing as seen from the difference in charges to the customers between banks and MFS providers. This is generally the case when there is a duopoly in the market and decide the market economics. MNOs also discriminate in favour of these providers as they generate high volumes of business for them. In many countries, competition laws and authorities discourage such discriminatory practices and unhealthy competition.

Interoperability between MFS providers and increased partnership between MNOs and MFS providers can create a shared revenue model. In these cases, MNOs may provide a better incentive and pricing condition with MFS providers based on the access to their network coverage. This might also reduce customer charges of accessing the services, bringing standardisation in the market.[30]

In markets like Kenya, where smaller MFS players were unable to negotiate with the USSD charges of dominant MNOs, they have established themselves as mobile virtual network operators (MVNOs). This also dominates the decision for higher charges of services. Equity Bank became a MVNO in 2015 with the Airtel network, called Equitel. It aimed to provide MFS at lesser cost after their fallout with Safaricom due to high USSD charges[31]. There is a significant market coverage for Equitel, which it took over from the Safaricom's share.

v. Lack of Clarity on Transaction History or Statement

MFS providers do not provide a transaction statement similar to the banks or MFI-NGOs. The customers need to request for a statement or they have to cross-verify their transactions against the SMS received post-completion of transactions. Customers feel that their trust on MFS will definitely increase if they receive an MFS transaction mini-statement or a physical proof of transactions after conducting an MFS transaction.

vi. Instances of Incomplete or Failed Transactions

Many customers have cited the issue of incomplete or failed transaction in MFS. There have been instances where customers have lost the entire sum of the transaction because of an error in a single digit in the mobile account number. Such instances mostly occur when the customers perform the transaction by themselves. It is normally less in cases of agent-assisted transactions. As a result, customers place their trust on the MFS agent and expect him/her to conduct the transaction correctly.

Persistent network issues have also created doubts on the completion of MFS transaction in the mind of both customers and agents. There have been instances where the transaction status message has not been delivered. This also results in confusion among customers and agents in gauging the successful completion of a transaction.

vii. Transaction Security

A frequently faced yet less reported issue concerns transaction security. All MFS transaction faces the risk of incorrect transfer, misuse of customer pin-code and fraud transaction SMSs. While incorrect transfer can be cases of customer or agent-assisted transactions, misuse of customer pin-code is generally seen in agent-assisted transactions. There is no process designed to secure the transaction for cases with incorrect transfer, which makes customers wary about conducting self-initiated transactions.

Transaction SMS is significant is confirming the success of a transaction to the customers. Many customers cite this requirement post every transaction. However, instances of non-delivery of SMSs often result from network failure or limited space in the message inbox of the customer's phone. The customers get alarmed, resulting in distrust on the security of the channel.

[29] Helix Institute, "Agent Network Accelerator Survey: India Country Report 2015".
[30] M-Shwari and KCB M-Pesa in Kenya both operate without usage-based charges for using Safaricom's STK and USSD channels, respectively.
[31] **Mas**, Ignacio and John Staley, "Why Equity Bank Felt It Had to Become a Telco—Reluctantly", *CGAP*, 2014.

5. Supply-side Challenges Limiting MSEs to Uptake MFS

i. Partial Understanding Between MNOs and MFS Providers on USSD Pricing Policy

Globally, it is widely accepted that MNOs reduce the cost of servicing customers for MFS providers by sharing their USSD and distribution infrastructure. This enables an MFS user to transact on his/her own without a need to visit the agent outlet. However, one of the most common issues that concern the uptake of MFS in Bangladesh is the partial and skewed understanding between the MNOs and MFS providers with regards to the USSD pricing policy. A few industry players specify that MFS providers consider MNOs merely as a wireless service provider and not as a business partner.

> *"Even if there is a bank-led model, the regulators should enhance the partnership between banks and telcos. They need to play a role of honest broker and create the right kind of environment."*
>
> A senior official at Institute of Microfinance

On one hand, the MNOs believe that the current 'revenue-sharing model' is not the most appropriate commercial arrangement for them to partner with MFS partners. Rather, it is unsustainable and obsolete. As per the present bilateral agreement between MFS players and MNOs, MNOs have no visibility on the various key revenue generating aspects of the MFS business, such as the type of transactions (financial or non-financial), value, and volume of transactions. This makes it nearly impossible for the MNOs to authenticate the usage of their USSD infrastructure as well to validate the invoice raised by the MFS providers. Recently, there was an instance when MFS providers prevented MNOs from conducting an audit to gauge this. This has led to confusion among the stakeholders on whether MNOs can even have this type of oversight.

> A few industry players specify that MFS providers consider MNOs merely as a wireless service provider and not as a business partner.

On the other hand, MFS providers proclaim that the role of MNOs is limited only to sharing of infrastructure. Moreover, providers follow bilateral agreements- which do not provide for MNOs to access any information.

To resolve all such issues, there have been multiple rounds of discussion between various stakeholders to mutually acknowledge and decide upon a standard USSD pricing policy. This interaction is yet to come to a consensus on a strategy for the benefit of all stakeholders -MNOs, MFS providers, customers and the evolving market. All efforts in this direction to protect the rights of various players and promote a conducive environment, however, are yet to take any formal, concrete shape.

ii. Lack of Competition in the MFS Sector

There is a common opinion among industry players that the MFS market in Bangladesh is monopolistic and non-competitive. There is enough evidence which suggests that there is a significant difference in the market share of the leading player (bKash) and the nearest competitor (DBBL-Rocket). According to the industry players, lack of competition is one of the key factors behind the absence of innovative MFS products in the market. This situation has also resulted in a failure to rationalise customer service charge or offer a better quality of services. Ultimately, this has resulted in a situation where there is enough scope for MFS to cover much more ground for greater financial inclusion in the region.

Presently, the MFS market in Bangladesh has minimal competition due to the limited entry of new as well as small players. This is attributed to the following reasons:

- Ambiguity in the MFS guidelines on participation of fintech players;
- Unwillingness of the central bank to allow MNOs to offer MFS;
- Unfair USSD pricing policy, especially for new market entrants and smaller players;
- Lack of innovative approach of MFS providers;
- Lack of interoperability among MFS players.

> *"There is limited competition in Bangladesh. As a result, there are very few product innovations."*
>
> A senior official of a bank

iii. MFS is Considered as a Secondary Business

The stakeholders specify that most banks hold a limited viewpoint on MFS. Presently, banks regard MFS only as a product (just like savings bank account and a debit card), and not as a full-fledged, revenue earning business line. This approach limits their willingness to focus on and explore the potential avenues of MFS. In addition, MFS forms only a minuscule portion of their overall portfolio when compared to other business lines. Stakeholders further suggest that the banks perhaps need to be more optimistic about the future of MFS and as a result, have not made a significant investment in the MFS business.

iv. MFS has a Narrow Portfolio

Most stakeholders assert that MFS in Bangladesh is in its infancy. Providers are yet to realise the full potential of MFS. Although the outreach of MFS has increased in the previous few years, providers continue to concentrate on and offer basic financial and payment services, such as cash-in, cash-out, peer-to-peer transfers and airtime top-ups. As per March 2017 data from Bangladesh Bank, cash-in and cash-out contributed 81% of the total value of transactions conducted through MFS accounts. Some providers (in collaboration with partners, such as RMG factory owners and MFIs) have been offering a few other services, such as salary disbursement, loan disbursement, merchant payments, etc. using MFS. However, there is significant scope to move such initiatives beyond their current limited scale. Moreover, there are few products that are designed to cater to a particular customer segment. It is often argued among industry players that customers view MFS only as a platform to transfer money, and not as a 'mobile wallet' that can be used to access various financial solutions.

> *"MFS holds a small portfolio within banks and hence, it is not getting the right focus."*
>
> A senior official of a Bangladesh Bank

Stakeholders cite the risk-averse nature of banks as the key reason for a lack of product development and innovation. Such stagnation can also be attributed to the lack of competition in the market. Key stakeholders broadly accept that banks operate following a conservative approach. They claim that a combination of significant investment in innovation and technology, as well as a high-risk appetite, are needed for a thriving MFS sector. Since banks are risk-averse with limited investment appetite, they have refrained from launching new products, particularly in a sector seemingly dominated by two players. These providers would rather observe the uptake of a new product launched by other players in the market and then offer a similar product.

A few providers also suggest that the break-even period for any MFS provider is about 4–5 years. This significantly long profit gestation period discourages banks from making large investments to further their business. Instead, it influences them to continue to offer basic financial services. Moreover, most banks lack the appetite and strong balance sheet to absorb the losses that are likely to be incurred during the initial years after the launch of the MFS business.

Most banks lack the appetite and strong balance sheet to absorb the losses that are likely to be incurred during the initial years after the launch of the MFS business.

v. Lack of Required Skills in the Core Project Team

The MFS business, for most providers, is managed by people with substantial banking experience. The stakeholders claim that the MFS business needs to be run by a right mix of human resources, having the required experience of Fast Moving Consumer Goods (FMCG), MNOs, information technology, and banks among others. Stakeholders credit bKash's success to its core project team, most of which come with varied experiences of industries other than banking. Their experience of establishing a huge network, leveraging technology, and ability to take quick decisions, among others, has been instrumental in working out a sustainable business model for the company. Unlike bKash, the project team of most of the other MFS providers seem sceptical of the scope and potential of MFS in Bangladesh.

vi. Inadequate Knowledge and Usage of MFS

The growth and importance of MFS in Bangladesh can be analysed from the fact that around 92% of adults[32] in the country are aware of MFS. However, only 33% actually avail MFS – both as registered and OTC users. Further, in April 2017, only 50% of the MFS accounts[33] were active. Industry players have aptly highlighted the gap between awareness and use of MFS. Some prominent reasons that explain this are:

- Limited awareness campaign and activities being organised by the MFS providers, regulators, and central government;
- Inadequate use-cases and value propositions for the end-user;
- High prevalence and usage of OTC services;
- Low level of financial literacy among the target segment of MFS providers, among other reasons.

> *"Sometimes we need to pay lakhs of taka on a single day. So if we were to use bKash, we would need tons of bKash accounts just to pay that money."*
>
> An MFS user in Dhaka

vii. Lack of intuitive USSD user interface

In 2016, smartphone penetration[34] in Bangladesh was limited to 20%. In addition, there exist a handful of MFS providers that offer smartphone application(s) to its customers for availing financial services. Given that the masses still primarily use basic phones, most customers are limited to a single cost-effective way to self-use MFS, which is the USSD channel. A few stakeholders emphasise that the USSD user interface of most MFS providers is not in the vernacular language and needs to be more user-friendly. This makes it difficult for the masses (currently 30%)[35] to use MFS and conduct successful transactions.

However, there are certain limitations of the USSD medium. For instance, each USSD message has a limitation of 182 alphanumeric characters. This makes it challenging for providers to develop a USSD message (all information in one screen) in the vernacular language.

6. Regulatory Challenges Limiting MSEs to Uptake MFS

i. The Need for Single, Clear, and Complete Regulatory Guidelines on MFS

Most industry players indicate that the current set of regulations on MFS need to be more comprehensive. The current guidelines are not entirely clear on data security, data privacy, customer protection, and on a risk-management framework, among others. Moreover, the recent draft of MFS guidelines has created ambiguity among stakeholders. Based on the anecdotal evidence from stakeholders, key limitations of the draft guidelines include:

- Lack of justification for the need of revised guidelines – The requirement of the revised guidelines followed by the changes brought in, in the form of an addendum, would have helped justify the revised guidelines.
- Ceiling on ownership of non-bank partners – There is a ceiling on the ownership of the non-bank partners. While it is understood MFS in Bangladesh will remain a bank-led model, the requirement of the ceiling

32 InterMedia Report, http://finclusion.org/uploads/file/reports/IM%20BRAC%20220616.pdf
33 Bangladesh Bank website, https://www.bb.org.bd/fnansys/paymentsys/mfsdata.php, Accessed on June 1st, 2017
34 Ministry of Foreign Affairs of Denmark, "eCommerce Country Fact Sheet", *The Trade Council*
35 http://bdnews24.com/bangladesh/2015/06/16/bangladeshs-literacy-rate-rises-to-70-percent-education-minister-says, Accessed on June 4th, 2017

on ownership should be explained in the guideline. This will bring transparency to the prospective bank and their prospective non-bank partners.

- Cap of 15% on shareholding of a single company – There is no reason provided in the guideline or any circular explaining the cap of 15% on the shareholding of a single company
- Different licensing and compliance requirements as compared to agency banking – There is a difference in the strategy and operations of a bank that works in agency banking and a bank that provides MFS in the form of a subsidiary or as a sub-unit of the bank. These licensing and compliance requirements should be separate and cannot be merged in the MFS regulations.
- No provision for adopting e-KYC and tiered KYC – There is no policy that drives the adoption of e-KYC and tiered KYC in the regulation. These are important requirements when there is lot of global focus on AML and compliance
- Lack of policies that are likely to drive competition in the MFS market – This has been a pre-existing issue that the central bank has missed in the revised regulation. A competitive environment can prove to be beneficial for customers. Competition would drive the market more by innovation and customer service rather than only in terms of coverage.

Due to such ambiguities, some MFS players, especially recent market entrants with limited market share, have indefinitely postponed their decision to make any significant investment.

The current guidelines lack clarity on data security, data privacy, customer protection, and a risk-management framework, among others.

"The draft guidelines suggested having a maximum equity stake of 15%, that is seven partners. This is very much fragmented and seven investors cannot become a decision maker."

CEO and MD of a leading private bank

ii. Ambiguity among Stakeholders on the Supervisory Body of Financial Inclusion and Digital Financial Services (DFS)

There is uncertainty among industry players regarding the ownership of the regulatory framework of MFS as well as the broader agenda of financial inclusion in Bangladesh. As per some stakeholders we interacted with, there are a number of key officials at Access to Information (a2i), Bangladesh Bank and BFID, Ministry of Finance, whose roles and responsibilities need to be defined with clarity. In addition, there is confusion in the market regarding the sole supervisor of the MFS business. This is because there is no dedicated MFS (or DFS) department in the central bank to govern and monitor various providers. The Payment Systems Department (PSD), which currently regulates MFS, is a fairly nascent department that also looks after other activities. The stakeholders observe that the ever-growing MFS business itself involves multiple players, different models, innovations, and challenges and needs a dedicated department for monitoring and supervision. It is believed that Bangladesh Financial Inclusion Unit (BFIU) – the central agency of Bangladesh responsible for analysing and investigating suspicious transactions, money laundering (ML) and financing of terrorism (TF) – does not have real-time market intelligence and access to MFS data. In fact, BFIU gathers data mostly from MFS providers when there is a suspicious transaction or a complaint.

"Who is driving financial inclusion in Bangladesh? BFID? BB? Or a2i? This is not clear."

An official of an international donor organisation working in Bangladesh

iii. Limited Coordination between Regulators

In Bangladesh, MFS providers have to partner with MNOs to offer mobile-based services to the customers via Unstructured Supplementary Service Data (USSD). This model requires the two regulators i.e. BTRC and BB, to create a conducive environment for MFS and cohesive partnership between market players. However, most stakeholders opine that there needs to be seamless coordination between the two regulators for them to meet existing industry-level challenges and bottlenecks. A key stakeholder mentioned that "the disagreement between the two regulators is primarily on the issue of a uniform USSD pricing policy". While BTRC has been pushing BB for session-based pricing for the MFS industry, a few MFS providers (particularly larger players) continue to resist adopting the proposed commercial model without undertaking a comprehensive cost-modelling exercise.

iv. Absence of Bank Subsidiaries in the MFS Market

It is well known that the dominant player in the MFS market is a subsidiary of a bank. MFS is a core business for them without any other revenue stream such as banking, unlike other providers. Most providers, which are bank-owned, cite the following issues with the current non-subsidiary model:

- Bankers do not treat MFS as a core business activity;
- Limited ownership of the MFS business;
- A decreased focus of the board of directors on the MFS business.
- The slow and cumbersome decision-making process of the MFS management.

> *"MFS business requires rapid decision-making. As the board's approval takes considerable time, most banks – not adopting the subsidiary model – are unable to show good performance."*
>
> A senior official of a bank offering MFS

Considering these issues, and learning from the success of a subsidiary model, a few other banks have also applied for the license to the central bank to operate as a subsidiary. Such players believe that a subsidiary will provide them sufficient leeway to build and manage a dedicated MFS business. It should, however, be noted that it would be better for the central bank to reduce the processing time in granting licenses to banks for a subsidiary model.

In the current market scenario, only 50% of the banks have successfully launched their MFS services. While a handful of banks rue the fact that a subsidiary license would help them manage a team of their own, considering banking services and MFS services are distinct in terms of licensing and compliance. Other banks also feel that launching or expanding MFS operations is likely to be a loss-making unit. Banks that have missed the first-mover advantage or lost the market due to delay in receiving the licenses need to identify their space through innovation and differently-grouped products that are not available yet in a primarily-payment driven market.

v. Non-uniform USSD pricing policy for MFS providers

In Bangladesh, MFS providers partner with MNOs to leverage their retail distribution strength to reach the last mile. This partnership also lets providers access the MNO's USSD infrastructure and offer products and services. Many small banks, which already operate and/or plan to launch their MFS business, feel they receive non-preferential USSD pricing from the MNOs. For instance, the dominant MFS players have a bilateral agreement to share 6-8% of their revenues with the MNOs. Due to the huge volume of MFS business on offer to the MNOs, bigger players have a high bargaining power and are able to develop a compelling business-case at reduced price points.

> Many small banks which are already operating and/or are planning to launch their MFS business feel they receive non-preferential USSD pricing from the MNOs

On the other hand, the remaining providers – especially newer and smaller players, which have limited customer base and business volumes – are at a disadvantage and have significantly less bargaining power. These players supposedly share around 20–25% of their revenues with the MNOs. Considering that MFS is a low-margin business, this commercial model is unsustainable for new entrants and smaller players. It further limits their ability to make significant investments in the MFS business – be it for product innovation, increasing distribution, or for improving technology.

> *"In Bangladesh, OTC is a bridge between the lack of knowledge and literacy (formal and financial) that is needed to use a mobile account."*
>
> A senior official of an MFS provider

In the absence of a standard USSD pricing policy, the current practice of revenue-sharing based on business volume acts as a major entry-barrier for new entrants that intend to make a mark in the MFS market.

In this context, it is pertinent to understand the position of the MNOs that partner with the small players. The MNOs allocate a part of their USSD infrastructure to the MFS providers on the basis of their Service Level Agreements (SLAs) with the MFS providers. The MNOs also set up a dedicated support team to address grievances. The limited business volume of small players does not make much business sense for the MNOs to partner with them at a low (6–8%) percentage revenue-sharing model. To overcome this impediment, MNOs have advocated the adoption of a new model to BTRC. This proposed model has uniform pricing for all players irrespective of their business volumes.

Although there are no numbers on the proportion of failed and successful transactions, it is interesting to note that failed transactions are a loss-making proposition for MNOs. The level of financial literacy among the masses is not adequate for them to always conduct a successful transaction on the USSD channel successfully; this means session drop-outs and hence loss of revenues to the MNOs. The losses stem from the fact that MNOs earn revenues only on successful transactions, whereas their USSD infrastructure is used even for all transactions, including failed ones.

vi. Prevalence of Unrecognised OTC Services

In most countries offering MFS, one of the biggest barriers to self-use of a mobile account is the significant use of Over-the-counter (OTC) services. This, at least for the illiterate customer segment, is a convenient substitute to formal MFS self-use and helps them access various financial and payments solutions. As per the latest country report[36] published by the *Helix* Institute, 73% of the MFS users in Bangladesh prefer OTC services. The MFS players suggest that as of 2017, this number has reduced to about 55–60%.

OTC is a type of transaction that involves senders or receivers not using their own MFS accounts. Instead, customers transact in cash with an agent who executes the electronic payment on their behalf. This makes it challenging for the providers as well as regulators to track the transactions, flow of funds, and the OTC users. As a result, like most countries; OTC has not been legalised in Bangladesh. Most stakeholders, however, view it as a hard reality considering the customer segments which use this service. They further believe that OTC usage has contributed significantly to the usage of MFS in the country.

> Unrecognised OTC transactions makes it difficult for the state and the regulators to track the movement of funds, which is critical from AML and CFT perspectives.

Stakeholders highlight the following reasons for the prevalence and usage of unrecognised OTC in Bangladesh:

- Significant lack of literacy (financial and otherwise) among the OTC user-base (both sender and receiver in case of a P2P transfer);
- High turnaround-time for activating a customer's mobile account and making him/her ready to transact;
- One-third of the population is without a mobile;
- Easy availability of agents in the country;
- Passing the fear/risk of wrong transactions to the MFS agents;
- Economic incentive for the agents to promote OTC services;
- Females being uncomfortable in sharing their mobile number with the agents;
- Limited compliance to guidelines by MFS providers, among others.

[36] Helix, Agent Network Accelerator Survey: Bangladesh Report 2016, http://www.helix-institute.com/sites/default/files/Publications/160809%20Bangladesh%20Country%20Report.pdf

Although it is likely that there will be an 'OTC-only segment'[37] will persist in the country, but the prolonged usage of OTC services can have a negative implication for the MFS providers[38], the customers, and the broad agenda of financial inclusion. Unrecognised OTC transactions also make it difficult for the state and regulators to track the movement of funds, which is critical from the perspectives of Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) Acts.

vii. Leniency of Regulators Towards Non-complying MFS Providers

In 2016, the annual Foreign Inward Remittance (FIR) in Bangladesh witnessed a drop of 11%[39] when compared to 2015. The International Labour Organisation (ILO) estimates that USD 4.3 to 5.7 billion[40] was remitted through illegal routes of digital *hundis*[41] in 2016 . This is a key issue for the central bank, which has been undertaking remedial steps, such as reducing the transaction limits to curb the practice of digital *hundi*. Most stakeholders, however, expect the regulators to identify the platforms being used for such illegal transaction activities and take strict and appropriate action.

Since Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) regulations are strictly imposed on banks, the same regulations should apply to MFS providers also. The stakeholders claim that no penalties have been imposed on any defaulter so far. Alternatively, there is an absence of stricter laws, and rules and regulations to curb issues pertaining to AML or CFT in the current scenario.

The industry players indicate that some MFS providers do not comply with the guidelines, especially KYC procedures. Moreover, due to lack of supervision protocols and limited compliance to reporting requirements for MFS by the providers, the central bank resorts to subjective oversight at times.

viii. Insufficient Transaction Limits and High Service Charges for MFS users

In Bangladesh, 57% of the population does not have access to any formal financial services. On the contrary, with due credit to the introduction of MFS in 2011, there are 25.5 million active MFS accounts[42] in Bangladesh as on April 2017. MFS has significantly increased customers' access to and engagement with formal financial services. This suggests that MFS has played an instrumental role for most customers in availing financial services.

Most stakeholders, however, suggest that the new daily transaction limits are insufficient and inconvenient for a significant number of MFS users. Revised on January 2017, the transaction limits are BDT15,000 for cash-in and BDT10,000 for cash-out with a limitation on cash-out within 24 hours[43]. The decreased limit, for instance, makes it difficult for RMG factory owners to disburse workers' salaries, and workers to withdraw their earnings.

> At times, the central bank resorts to subjective oversight. This is due to a lack of supervision protocols and limited compliance to reporting requirements for MFS by the providers.

Industry players argue that relaxing the limits to higher amount of transaction of MFS account may not be an appropriate mechanism to control OTC services and combat illegal financial transactions – mainly foreign remittance through *Hundi*. The MFS users (or maybe agents) have tried to offset the fallout by opening more accounts, which has led to an additional 1.5 million accounts[44] being registered in the June and July 2017. As a workaround, the agent

37 MicroSave blog, Beware The OTC Trap, http://blog.microsave.net/beware-the-otc-trap/
38 Beware The OTC Trap: Are Stakeholders Satisfied?, http://blog.microsave.net/beware-otc-trap-are-stakeholders-satisfied/
39 http://www.thefinancialexpress-bd.com/2017/01/06/58372/Digital-hundi-comes-into-play-as-remittance-evades-formal-channel, Accessed on June 1st, 2017
40 http://www.thefinancialexpress-bd.com/2017/01/06/58372/Digital-hundi-comes-into-play-as-remittance-evades-formal-channel, Accessed on June 1st, 2017
41 *Hundi* is a form of remittance instrument used to transfer money between individuals. Digital *hundi* is a provision to send money through a courier service, which was actually one of the ways to send money in Bangladesh prior to the launch of MFS. As customers' account are not used for digital *hundi*, it becomes difficult for anyone to identity the actual sender and receiver.
42 Bangladesh Bank website, https://www.bb.org.bd/fnansys/paymentsys/mfsdata.php, Accessed on June 1st, 2017
43 Bangladesh Bank website, https://www.bb.org.bd/fnansys/paymentsys/mobilefin.php, Accessed on June 1st, 2017
44 Bangladesh Bank website, https://www.bb.org.bd/fnansys/paymentsys/mfsdata.php, Accessed on June 1st, 2017

> A few experts suggest that the revised limits – both in terms of frequency of usage and amount- may have instigated the market to opt for OTC services.

can use these multiple accounts to balance the high service demand of the users and ceiling on the transaction limit. A few experts suggest that the revised limits – both in terms of frequency of use and amount- may have instigated the market to opt for OTC services.

In addition to the transaction ceiling, the high cash-out charges are considered as a critical factor hindering the uptake of MFS in Bangladesh. Most stakeholders assert that a majority of MFS users fail to view the intrinsic cost of convenience that MFS offers, and rather consider the current cash-out charge of 1.85 % of the ticket size to be on a higher side. This is a critical reason for their continued preference for cash to conduct daily transactions.

4

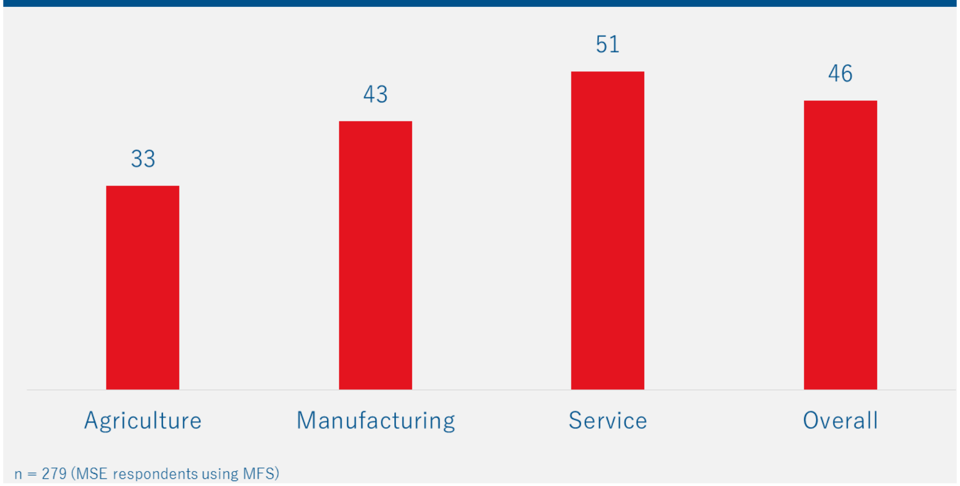
MFS for MSEs in Bangladesh

Understanding Challenges and Prospects of MFS for Business

MFS for MSEs in Bangladesh

1. Landscape Analysis of MFS Usage by MSEs in Business

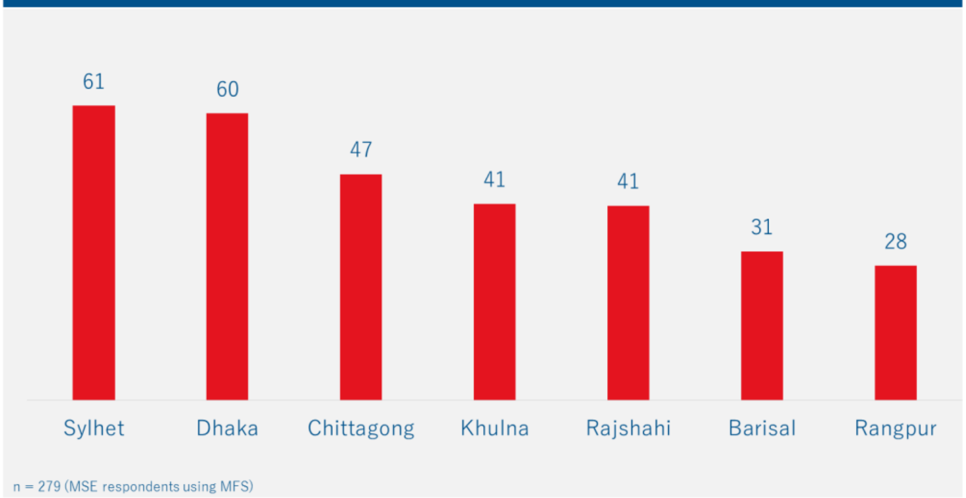
Exhibit 26: Overall, half of the MSE respondents use MFS for business purpose (in %)



Of the total MSE respondents, nearly half currently use MFS for business purpose. The usage varies based on the nature of the business. Half of the respondents belonging to the services sector use MFS, while only one-third of the respondents from the agriculture sector use MFS for business purpose.

MFS usage among MSEs for business needs is maximum in Sylhet and Dhaka divisions, followed by Chittagong. At least one-fourth of the MSE respondents use MFS in business in each division. This shows that a few MSEs do share an interest in using MFS for business purposes. This implies that there lie opportunities for the providers to increase their coverage and target more MSEs.

Exhibit 27: The usage of MFS for business purposes varies significantly across divisions (in %)



45% of Micro - Enterprises use MFS for business

49% of Small Enterprises use MFS for business

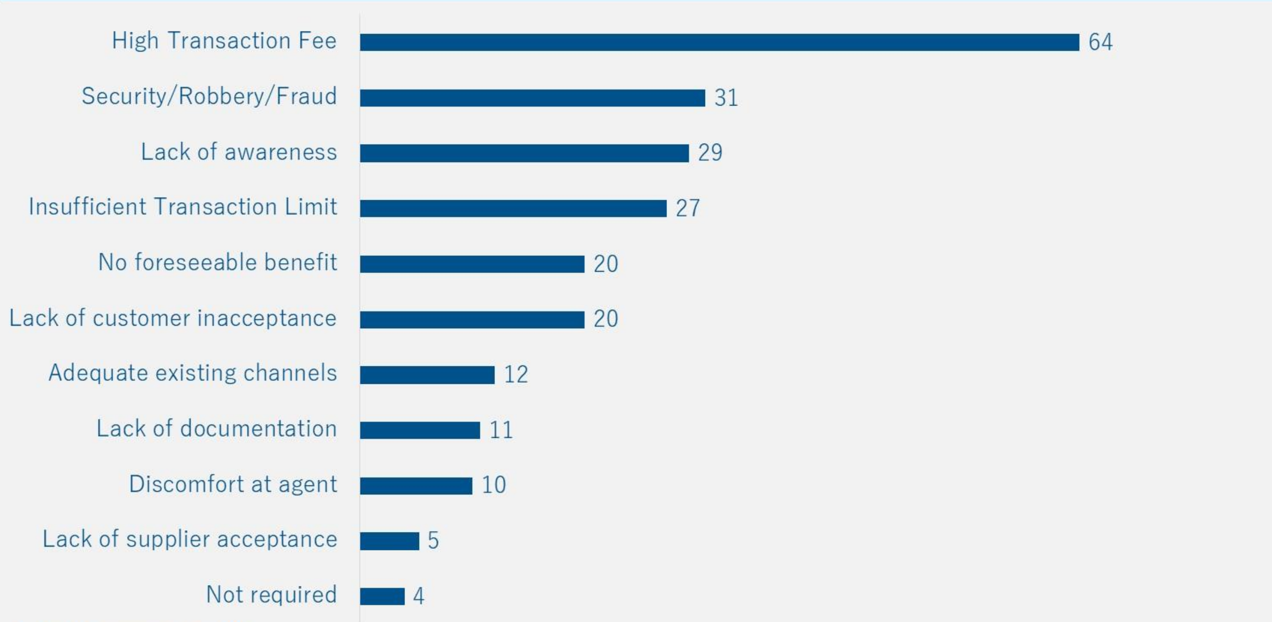
33% of Agri-related Enterprises use MFS for business

MSEs mostly use MFS for payments and collection. A few notable instances are:

- Collection of daily sales by field executives from vendors
- Payment to the field executives for emergency requirements
- Monthly salary payment to labourers and retailers
- Receiving payments from wholesalers by farmer
- Receiving payments from customers
- Payment to creditors.

> *"MFS helped me to collect my sales proceeds from my buyer. bKash helped me a lot for purchasing motor parts from Dhaka Market and due to this, I do not even need to go to Dhaka to procure goods. I call the supplier at Dhaka and they send me the goods through a bus and I pay their bill through bKash."*
>
> A motor garage owner in Mymensingh

Exhibit 28: Transaction charge clearly remains as the significant reason for not using MFS for business (%)



n = 279 MSE respondents using MFS

The MSEs state multiple reasons for non-usage of MFS for business. Transaction charges (64%) is clearly one of the key reasons for not using MFS for business. More than one-fourth of the MSE users said that some of the critical reasons that constrain them from using MFS for business were unawareness about use-cases for business, lower transaction limits, and security concerns. A few respondents cited reasons, such as lack of documentation, commercial licence, and tax implications for not using MFS. Providers may look into promoting mobile financial services and financial literacy among MSEs to increase uptake of MFS for business. These limitations have been explained in detail in the following section.

71% MFS users claim to have made payments to vendors and suppliers at least once

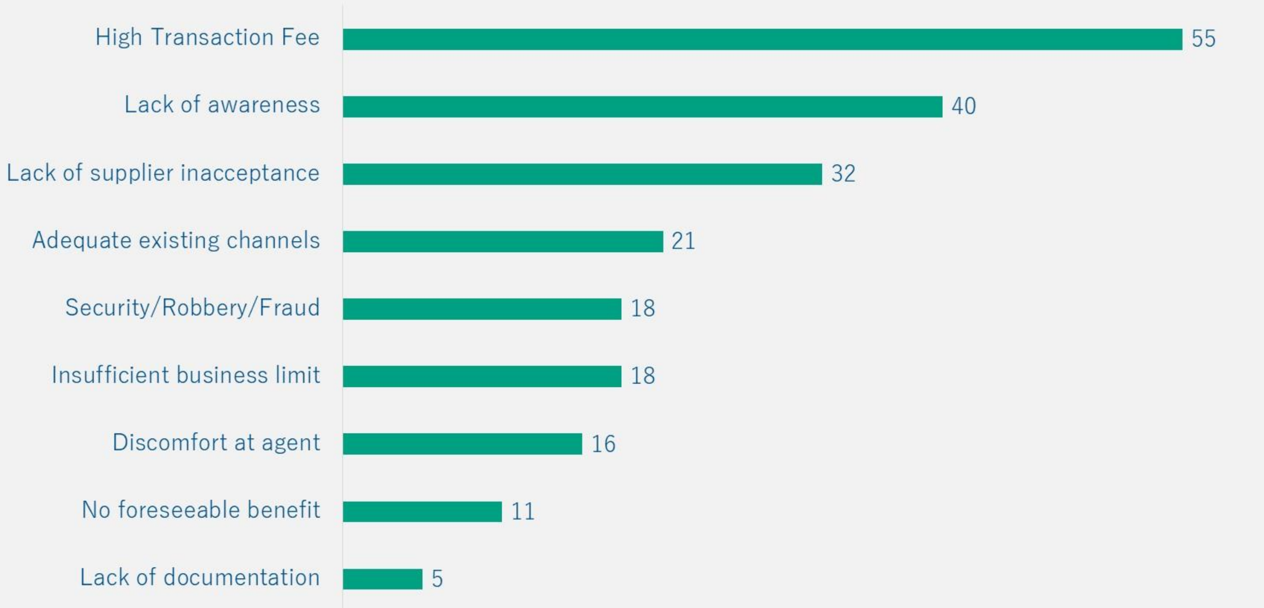
63% of MFS users claim to have received funds from customers and vendors

Among MSEs who are MFS users, 71% utilise their personal MFS account to make vendor and supplier payments. 63% receive and make payments from/to their customers and vendors respectively. These transactions are all for business purposes. 72% of micro-MSEs and 54% of small MSEs make and accept payments from vendors and customers.

The registered MFS users who do not make business transactions cite high transaction fee (55%) to be the key reason for their lack of MFS use. Awareness among MSEs and lack of acceptance for payments among suppliers are a few other reasons that limit the use of MFS by MSEs.

Documentation, taxation, licences, and other process-related issues comprise the least proportion of concern for not making payments among MSEs. This reveals that while using MFS for business, MSEs are not concerned about licences, taxation, documentation, or any kind of digital footprint.

Exhibit 29: Registered MFS users, who do not make business transactions, cite high transaction fees to be the major deterrent in using MFS for business (%)



n = 279 MSE respondents using MFS

KEY CHALLENGES LIMITING THE UPTAKE OF MFS BY MSEs IN BANGLADESH

1.0 Demand-side challenges

- No separate MFS account for MSEs
- Limited use-cases and value propositions of a MFS account for MSEs
- Lack of incentive to MSEs to use MFS account
- Insufficient transaction limits and high tariff
- Limitations in on-boarding players for backward linkage
- Lack of documents to registering the MSEs
- Cumbersome process of making a merchant payment
- Limited knowledge of MSE owner to act as an agent
- Issues of transparency and tax implication
- Lack of awareness of MFS
- Absence of push and pull features in most MFS account
- Issue of float management at agent level
- No provision of transaction statement
- Challenges with USSD interface and its usage

2.0 Supply-side challenges

- Limited awareness among regulators on the usage of MFS for MSEs
- Limited interest among providers to use MFS in their business
- Resistance of MFIs to adopt MFS for MSEs
- Challenges in usage of MFS in RMG factories for salary payments

2. Demand-side Challenges Limiting MSEs to use MSEs in Business

Presently, MFS usage among MSEs is limited to merchant payments (C2B), P2P payments (merchant to supplier and vice-versa) for business purposes. Some of the key issues highlighted above that limit MFS usage for business purposes are explained in detail:

i. Limited Use-cases for an MFS Account

Due to limited use-cases, MSE owners view MFS as a money transfer service only. An MSE owner who is comfortable in using cash for business transactions would not find the adoption and use of an MFS account for business purposes compelling. For instance, an MSE owner who has used an MFS account to collect and receive digital payments would find it difficult to use the remaining e-money to avail other services. Eventually, the MSE owner is likely to visit an agent and conduct a cash-out transaction, which is considered an inconvenient alternative. In essence, the stakeholders suggest that the MSE owners are less likely to adopt MFS until providers innovate more, relevant use-cases.

ii. Lack of Incentive to Use MFS Account

Most MFS providers rarely offer any incentive schemes like cash-back, upfront discount, loyalty points, awards, etc. to the MSE owners for using their MFS account. This impacts the use of MFS as well as the stickiness of the MSE owners with the provider.

iii. In-sufficient Transaction Limits and High Service Charges for MFS Users

Like MFS customers, transaction limits and charges are common issues for MSE owners as well. Moreover, the high value of the business transaction makes the current transaction limits inadequate for MSE owners. In addition, the high cash-out charges limit the use of MFS among MSEs.

iv. Limitations On-boarding Players for Backward-linkage

Most MSEs, irrespective of their line of business, are non-exclusive retailers. This necessitates the need to conduct financial transactions with various entities of a value chain, such as suppliers, vendors, and distributors. In a digital ecosystem, the MSE owner can potentially use the MFS account to transact with various players in a convenient manner. In the absence of such a system, the failure to link backward with different entities creates issues for the MSEs.

v. Lack of Documents for Registering the MSE

Although there is no data available in the public domain, the stakeholders suggest that most MSE owners lack the documents required to register an enterprise, such as VAT certificate, Taxpayer Identification Number (TIN) and trade licence. The process of procuring these document is also cumbersome. As a result, most MSEs are not registered as businesses. This makes it difficult even for the providers to identify and register the MSEs as merchants for accepting payments (C2B) through MFS.

vi. Cumbersome Process of Making a Merchant Payment

As mentioned above, the un-friendly USSD user interface is an impediment to merchant payments. The complicated process to pay a merchant involves many steps and as a result, the customers prefer transacting using cash. On the contrary, most stakeholders specified that customers are more likely to prefer card-based payment over mobile based payment. The card payment using wave and pay technology is much easy.

vii. Limited Knowledge of MSE Owner to Act as an Agent

Due to the cumbersome payment process, customers depend on the merchant for conducting an assisted transaction. The merchant becomes the first point of contact for the customers. However, the merchants are not well-trained on aspects like customer education, customer service, and grievance mechanism. This limits the ability of the MSE owners in actively promoting MFS among the customers.

viii. Issues of Transparency and Tax Implication

A few stakeholders proclaim that some MSEs may not prefer MFS for business transactions. This is due to the fact that MFS will impose transparency in the business. Consequently, MSE owners will be required to declare their income and abide by the taxation policies and rules of the country. There is some probability that a section of MSE owners will not prefer MFS for this reason.

ix. Lack of Awareness of MFS

In remote rural locations, such as Sylhet, Rajshahi, or Khulna, the awareness of MFS among MSEs remains low. Although they have heard of MFS, they are not confident of using MFS for business purposes.

x. Absence of Push and Pull Features

Most MFS providers do not have the feature where an MSE owner can send money (push) to the bank account or can load money to the MFS wallet from the bank account (pull). For cash-in, an MSE owner has to visit an agent to load e-money. This process is challenging, especially in rural areas, where the probability of a single agent serving a large area is higher. In the case that the agent has not been sufficiently liquidated, the customer's wallet may not get loaded.

xi. Issue of Float Management at the Agent-level

For MSE owners who use MFS, illiquidity of the agent makes it difficult to cash-out. In some of the cases, the agent transfers half the cash and returns the rest of the cash later, due to lack of liquidity. The MFS user faces the same challenge even during cash-in when the agent doesn't have sufficient e-money.

xii. No Provision of Transaction Statement

MSE owners express a demand for transaction statements while transacting through MFS – either in physical form from the agent or at their account. However, currently, they face a challenge in this regard, with no provision for instant transaction history.

xiii. Challenges with USSD platform for MSE Users

Some MSE owners feel that neither their employees nor they themselves are comfortable with using MFS. Although this is more to do with limited mobile literacy and financial literacy, the USSD interface, with its non-intuitive design, also plays a role. MSE owners feel that the number of sessions involved while transacting using the USSD channel are too high. Depending on the comfort and confidence with an app-based solution, there is a mixed opinion among the owners on their preference for MFS through USSD. Some MSE owners, who are aware of the mobile app, find it more intuitive. They are, however, sceptical about the security of the app. They feel that their personal data may get hacked.

3. Regulatory and Provider-level Challenges Limiting the Uptake of MFS by MSEs in Business

i. Limited Awareness Among Regulators on the Use of MFS for MSEs

Both industry experts and key stakeholders of MFIs and MSEs possess a limited understanding of the current state of the MFS sector. In addition, they have only a minimal awareness of the potential of MFS in their line of business and for their end-clients. Some MSEs in Bangladesh avail credit from MFIs due to easy access to

> *"In the MFI sector, the MFS solution is not feasible. We have been operating on the Grameen model where social interaction is very important."*
>
> A motor garage owner in Mymensingh

finance. As a result, a few stakeholders suggest that MFS can be used to digitise the credit that the MSEs receive from MFIs. A handful of pilots and small-scale projects are also being undertaken in different parts of the country to gather learnings by introducing MFS in MFIs. However, a few stakeholders expressed their doubts about the regulators' actual degree of interest in the preference for and use of MFS in their business.

ii. Limited Interest among Providers to Use MFS in their Business

Most industry players assert that only a few MFS providers understand the potential of using MFS for MSEs. Consequently, it is observed that there is a lack of push from the providers to adopt and promote MFS among the MSEs. Presently, there are only a few products and services being offered exclusively to MSEs. A few stakeholders cite that some MFS providers can innovate business solutions for MSEs to use MFS. There are, however, varied challenges that discourage them. Some of these are:

- The common habit of customers to keep no/low balance in MFS account;
- Complex process of making merchant payments through MFS account;
- Charges (around 1.5% of the transaction size) that merchants bear for accepting payments through MFS accounts;
- Insufficient daily and monthly transaction limits applicable to the use of an MFS account;
- Lack of a viable commercial model between MSEs and MFS providers.

> It is observed that there is a lack of push from the providers to adopt and promote MFS among the MSEs.

There are only a few providers that have at least been promoting merchant payments among MSEs. This is, however, largely supported by the financial aid received from international donors. Considering that the uptake of merchant payments has been low, the stakeholders are sceptical if those providers would continue to target the merchants even after the financial support is withdrawn.

iii. Resistance of MFIs to Adopt MFS for MSEs

Most micro-MSEs are dependent on MFIs to receive credit for various income-generating activities. This makes the MFI customers well placed to use MFS and avail digital credit for their business purpose. But most stakeholders consider that irrespective of the benefits which MFS may offer, most MFIs are likely to resist introducing MFS in their business to cater to MSEs. This may be due to following reasons:

- Unwillingness to share revenues with MFS providers;
- Apprehension of losing control over an established business;
- Aversion to adopt a transparent arrangement;
- Limited investment capability to adopt MFS;
- Apprehension over diluting the concept of joint liability in microfinance groups.

iv. Challenges in usage of MFS in RMG factories

Last year, Bangladesh bank expanded the purview to MSEs to include RMG (read-made garments) industry as well. In Bangladesh, the RMG industry is the biggest earner of foreign currency and contributes significantly to the country's GDP. It provides employment to 4.4 million Bangladeshis[45], especially women from low-income families. It generated USD 28 billion in export revenue[46] in the year 2016. There is growing evidence that digital payments has the potential to save time and money for employers. Digital payments provide employers access to formal financial services. As most

> *"Salary digitisation is a big opportunity for the MFS providers. However, the current cash-out charge is too high for an RMG worker. The MSE owner also fear outrage due to long queues and cash shortage at the agent outlet."*
>
> A senior official at a social innovation lab

[45] http://www.thedailystar.net/business/bangladesh-can-create-millions-jobs-rmg-workers-wb-study-1217503, Accessed on June 1st, 2017
[46] http://www.textiletoday.com.bd/overview-bangladesh-rmg-2016/, Accessed on June 1st, 2017

workers are presently paid in cash, salary disbursement through MFS has a huge potential in Bangladesh.

A few providers, after working out various commercial models with the RMG factory owners, have been disbursing salaries in the MFS account of the factory workers. These providers mention the following factors as major bottlenecks that hinder the uptake of MFS for salary disbursements.

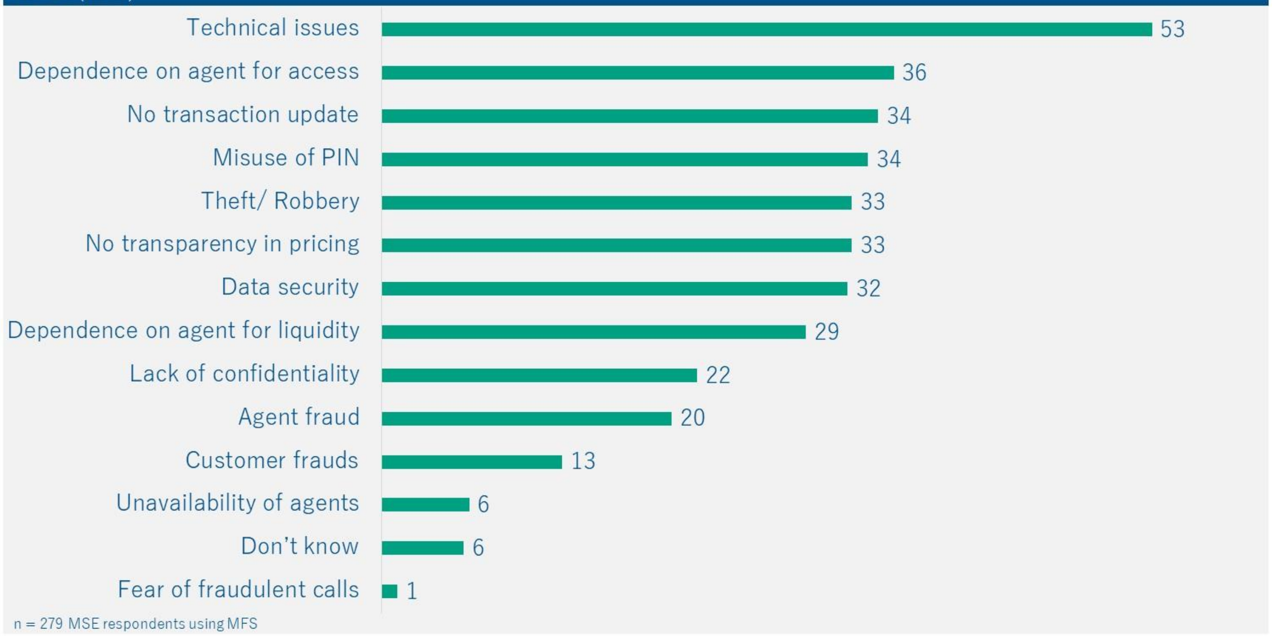
- High cash-out charges for the workers – in most cases, the RMG factory owner bears the cash-out cost, whereas in some cases, the MFS provider installs ATMs outside the RMG factories to facilitate free cash withdrawals for the workers;
- Limited use-cases for using the MFS account;
- Long queues and cash shortage at the agent outlets.

4. MSEs Perspective on Risks in Using MFS for Business

MSE owners reported that technical issues (53%) such as network failure and incomplete transactions affected their usage of MFS. As noted earlier, 95% of non-registered and 71% of registered users access MFS through the OTC channel. MSEs perceive this over-dependence on agents as a risk.

The absence of timely communication is considered as the third major risk. MSE owners mention that the SMS received from the provider acts as a temporary proof of transaction. They would instead prefer a physical copy/receipt as a proof of the MFS transaction.

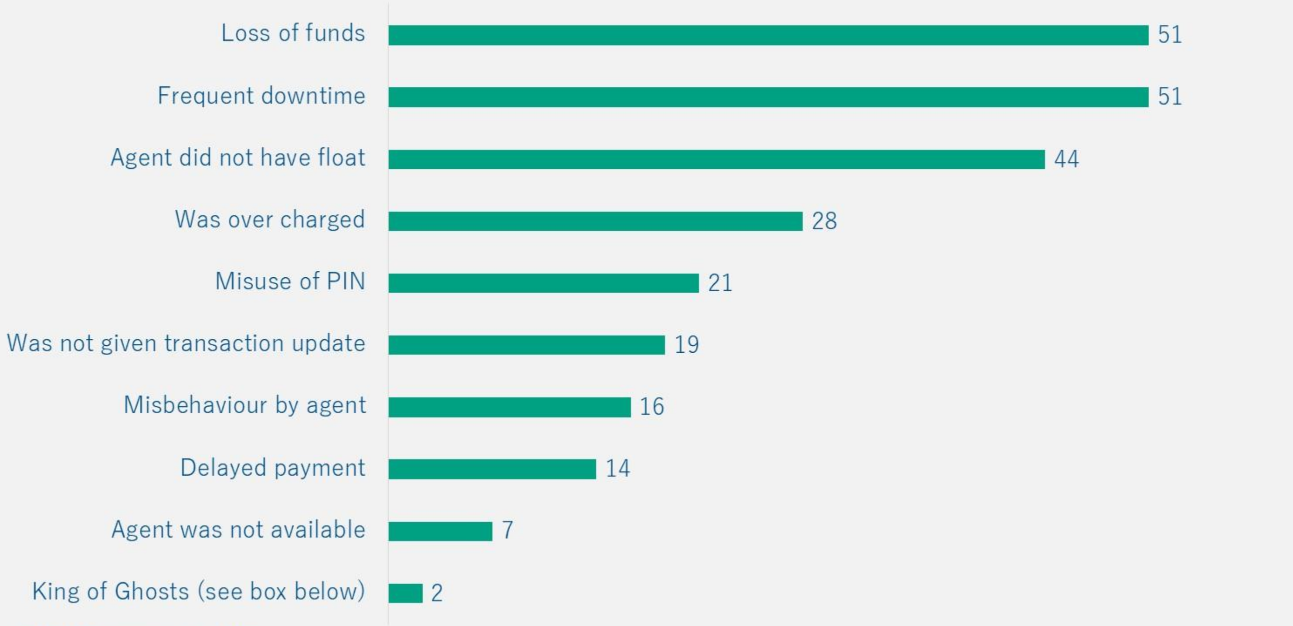
Exhibit 30: One in three MSEs believe in high tariff and fear the risk of theft/robbery, which deters them from using MFS (in %)



One in three MSEs mentions that transparency in pricing and theft or robbery are some of the bigger risks that deter them from using MFS. 6% cannot identify any risk in MFS. Some of the untoward incidents that MSEs actually face while accessing MFS are given below.

Server-downtime is a common issue perceived by more than half of the MSEs; funds lost through MFS is another critical issue faced by one out of two MSEs. 44% of MSE respondents have faced service denial due to agent illiquidity. Overcharging is a common phenomenon faced by 28% of MSE using MFS. 16% of MSEs find the behaviour of agents to be inappropriate. One-fifth of the MSE cite that they do not receive any transaction status update.

Exhibit 31: One in two MSEs face server downtime and fund-loss as the most common issue in MFS (%)



n = 279 MSE respondents using MFS

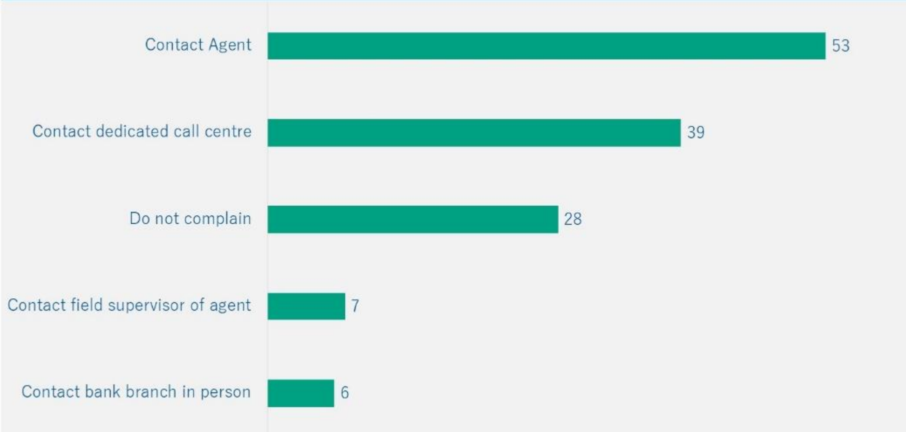
The story of "*Ziner Badshah*"

In Bangladesh, many customers often receive calls to reveal the PIN of their MFS account. These callers usually impersonate a call centre executive of the MFS provider. During such calls, the caller asks the MFS user to either confirm their PIN or make a token payment to a certain number. Such calls became so widespread in Bangladesh that customers termed such incidents as "Ziner Badshah" (King of Ghosts)

MSE owners are aware of the various recourse mechanisms that MFS providers offer. However, 28% of the respondents do not complain to anyone. A majority of the MSEs depend on the agents to resolve their issues and concerns. This lends MFS providers an opportunity to train their agents on products and ethics. MSE respondents are more likely to call the call centre (39%) rather than contacting the field supervisor of the agent (7%). The MSE owners mostly contact the field supervisor and branch executives of MFS to escalate the grievances.

MFS providers need to ensure that their customer call centre executives are adequately trained to provide the MSE with appropriate solutions. Agents and call centre are the first step of interaction for MSE. Hence, MFS providers need to deploy appropriate processes to resolve and decrease the risks in MFS for MSEs.

Exhibit 32: Agent remains the preferred point of contact for any grievance (in %)



n = 279 MSE respondents using MFS

5. MSEs Perspective on Opportunities for MFS Providers

In the present scenario, there is little doubt that MFS providers need to innovate and develop new products for the MSEs. Most MSE owners cite their willingness to use simple MFS products (82%), provided those are available (22%) and accessible to them (22%). Some other reasons, for limited use of MFS by MSEs, vary from non-availability of MFS agents in their locality to providers failing to reach the last-mile.

> *"20 BDT per thousand is a lot for cashing out my money. Even 10 BDT is fine. Or if they want to charge 20 BDT for 1000 BDT, they should charge less for a transaction of more than 10,000 BDT. That would be fine."*
>
> NGO owner in Chittagong

Most respondents believe that MFS providers should introduce new products in the market to attract more customers. A few of the products that are currently unavailable or sparingly available are tuition fee payment, scholarship payment, credit facility, insurance premium collection, hospital bill payment, monthly deposit against deposit pension scheme (DPS), and monthly instalment deposit.

i. Training MSE Owners, Staff, and Agents on MFS

A common issue that MSEs face is the limited knowledge of MSE staff and MFS agents in understanding and explain MFS product features to the customers. Most of the MSEs find it difficult to understand and use MFS through the USSD channel. As a result, they take the support of their family members, staff, and MFS agents/staff to conduct transactions using USSD. Interestingly, there is significant interest among the MSE owners to understand and use MFS, and conduct transactions on their own. However, they seek support and training from the providers to understand service charges, products, and transactional processes.

For MSEs to adopt and use MFS for business purposes, MFS providers need to advocate the benefits of using MFS. This will require dedicated training to MSE owners as well as MSE staff members. In addition, financial literacy training and regular refresher sessions are likely to motivate MSEs to adopt MFS and make them confident in its frequent use for business transactions, such as B2P, B2B and P2B, among others.

ii. Offering Smartphone Applications to Advanced Users

In our quantitative study, we learnt that 64% of the MSE respondents own a smartphone. This is equivalent to the ownership of feature phones. Most MSE owners who had a smartphone expressed their preference to use standalone applications for using MFS products. A few respondents also mentioned that their staff usually conduct financial transactions through their smartphone. In essence, our findings suggest that smartphone owners are more likely to prefer a smartphone application over the USSD channel.

Providers may seek this as an opportunity to reach out to smartphone users who are confident and comfortable in using a smartphone for financial transactions.

iii. Reducing Service Charges for Using MFS

While using MFS, high transaction charges remained a common issue among the MSE owners. Most MFS owners suggest that MFS providers should revise their transaction charges, especially for cash-out transactions.

A critical issue in using MFS for business transactions arises while making merchant payments, that is while accepting payments from customers (P2B). The net amount that is credited to MSE owner's MFS account is lesser than the actual amount owed to him/her by the customer. This is due to the 1.5% charge which the MFS provider deducts for enabling the merchant payment. As most MSEs earn a percentage of margin on their

> *"Apart from the transaction charges, the limit needs to be increased with respect to the turnover of the MSE. This might also decrease the use of* Hundi *services."*
>
> A dairy farm owner in Rangpur

sales, they generally avoid receiving payments through MFS and instead prefer cash transactions. The MSE staff members also cite this issue of high transaction charges on withdrawal of their salaries. Most MSE owners and staff believe that reducing the transaction charge is likely to make MFS affordable, and eventually, this may lead to increased uptake of MFS among MSEs.

MSEs draw an analogy to the banks, which do not charge customers for cash withdrawal. Similarly, MSE owners believe that MFS providers should at least reduce, if not remove, their transaction charges on withdrawal.

iv. Increasing Value and Volume of Transactions through MFS for MSEs

Presently, the transaction limits and charges for using an MFS account is same for a customer as well as for MSEs that use it for business purposes. Considering the fact that MSEs have different requirements from and usage of MFS as compared to usual customers, most MSE owners mentioned that there is a need for a separate account. MSEs, for instance, require an account with higher transaction limits to avail MFS for business purpose. MFS providers that focus on MSEs can conceptualise a business account for MSEs, and offer it to them on the basis of business turnover and size.

v. Linking MFS Account to a Bank Account

MSE owners suggested that an MFS account should be linked to the customer's bank account to increase the uptake of MFS. Providers can uniquely map an MFS user to a bank account. The provider can encourage MFS users to either keep money in the digital ecosystem or push funds to the linked bank account instead of cashing out. This initiative of seeding the MFS account to the bank account can enable users to transact on their own and somewhat reduce the footfall at an agent outlet. It could also weed out the challenge of float and cash illiquidity at agent point. MSE owners opined that such a facility would enable them to transfer funds from/to the MFS account, thus increasing the usage of MFS for business purposes.

vi. Offering digital credit with low interest rate and flexible terms of repayment

Generally, accessibility to credit with simple, acceptable terms and conditions drive the preference of MSEs towards a financial service provider. Most MSEs in Bangladesh find it challenging and time-consuming to access credit from banks. An MFS provider can view this as an attractive opportunity to meet the credit requirement of MSEs. Credit with less documentation, better interest rates, and flexible repayment terms are some of the key requirements of the MSEs. Products, such as short-term micro-credit will suffice the need of urgent fund requirement of micro-enterprises. A few MSE respondents mentioned that MFS providers can offer credit up to 50,000 BDT (USD 600) with simple terms and conditions. While offering such products and services, the MFS providers shouldbe considerate of the nature of the MSE's business, its business volume, and credit history.

vii. Introducing Business Account for MSE Owners

Considering the limitations of existing MFS accounts, MSE owners expressed their preference for a new, separate MFS account for conducting various business transactions. With the existing guidelines from the central bank, it is difficult for MSEs to conveniently use MFS for conducting business transactions. Most MSE owners will find it more useful and convenient to conduct transactions if MFS providers provide an option to create business accounts with enhanced transaction limits and reasonable charges. Most MSE owners are willing to share any document required for the purpose of taxation. They, however, emphasised that such accounts should be flexible to vary the limits on the number and amount of transactions, based on the size and volume of business.

viii. Acceptance of Transaction History of MFS Account by Formal Institutions to Offer Credit

Without much exception, banks and MFI-NGOs have a defined set of procedures that are to be followed before offering credit to an MSE owner. Although a record of financial transactions is one of the pre-requisites for assessing the credit-worthiness of a customer, transactions done through MFS account are not used for this purpose. MSE owners suggest that formal financial institutions should consider their mobile wallet transactions to evaluate their business turnover and credit-worthiness. This is because in Bangladesh, which has adopted a bank-led approach, the MFS business is essentially an extension of a bank's core business. Therefore, MFS providers should consider the use of mobile wallets to analyse the transaction pattern of customers. Banks and even MFI-NGOs may benefit by using these data points to offer credit to the MSEs.

ix. Organising Promotional Activities and Awareness Campaign near MSE Hubs

> Most stakeholders view that MFS has the potential to digitise the entire value chain and solve the issues of holding and travelling with cash.

Most MSE owners and staff suggest that organising awareness campaigns at/near MSE hubs can be effective in promoting the adoption and uptake of MFS among MSEs. There are various promotional Above-the-line (ATL) and Below-the-line (BTL) activities that have been organised at commercial places or near MSE hubs for general customers. Similar marketing campaigns can be organised especially for the MSEs, which will encourage and educate them to realise the potential and benefits of MFS in their businesses. Providers may also leverage this opportunity to cross-sell its other MFS products.

A few MSE owners mentioned that their staff members are not aware of the fact that just as with a saving bank account, they can also earn interest on the float available in an MFS account. In some cases, there is a lack of trust among the MSE staff towards the MFS agents. This accounts for a low level of interest and confidence in the information that the agents provide. Such a situation provides ample opportunity to encourage MSE owners and staff to change their existing behaviour and adapt MFS.

x. Developing and Promoting More Use-cases for MFS Users

Like key stakeholders, MSE owners also consider cash-in and cash-out to be the main use-cases of an MFS account in Bangladesh. Therefore, it becomes essential for the MFS providers to consider expanding their product portfolio and add innovative products customised for various target groups, such as women and MSEs.

6. Regulators' and Supply-side Perspective on Opportunities for MFS Providers for MSEs

i. Leveraging MFS to Digitise MSE Value Chains

Generally, most MSE owners conduct the following financial transactions, among others, in the regular course of their business:

- Receive payments from customers (C2B payments);
- Pay to vendors, suppliers and distributors (B2B payments);
- Receive credit from formal or informal sources;
- Repay the loan amount.

Although the above transactions are specific to MSEs, there exist significant opportunities for providers to blend-in MFS in the various value chains. Most stakeholders regard that MFS has the potential to digitise the entire value chain and solve the issues of holding and travelling with cash. Once integrated with forward- and backward-chain, MFS can facilitate digital payments from end-customers to business enterprises.

A few stakeholders suggest that MFS can significantly reduce the cost of operations of any financial institution such as an MFI by digitising loan disbursement and repayment.

ii. Developing New Products and Use-cases for MSEs

Most stakeholders suggest that MFS providers now have compelling opportunities to diversify their portfolio by innovating new products and services. They could even explore the possibility of partnering with fintech players and offer some of the following new products and services:

- Developing more relevant and useful use-cases for the MFS user;
- Linking savings product with the MFS account;
- Offering digital credit, using parameters such as salary amount, savings in the MFS account, MFS transactions ;
- Accepting digital loan from MFIs as well as the option to repay using MFS;
- Cross-selling other products and services based on digital trail of the MFS account;
- Providing access to the transaction history and behaviour of an MFS user to banks, which can in turn offer new products.

iii. Encouraging the Use and Promotion of MFS

To promote MFS usage among MSEs, there is a substantial need to ideate, promote, and offer incentive schemes to its users. Some of the attractive propositions that may not only promote the adoption of MFS but also increase self-usage can be:

- Cashback and discount for paying through MFS account;
- Incentive schemes for frequent users;
- Complementary services to MSEs, such as inventory management software solution to pharmacies;
- Reversal of charge paid by merchant while accepting digital payments (C2B);
- Seasonal discount offers during festivals and important events;
- Emergency credit, based on transaction history.

> *"No MSE owner will use MFS for just one purpose. There should be more use-cases."*
>
> A senior official at a social innovation lab

iv. Devising New Transaction Limits and Customer Service Charges

Almost all the stakeholders believe that there is a definite need to explore the potential of MFS for MSEs. Some of the important aspects which would require special attention are:

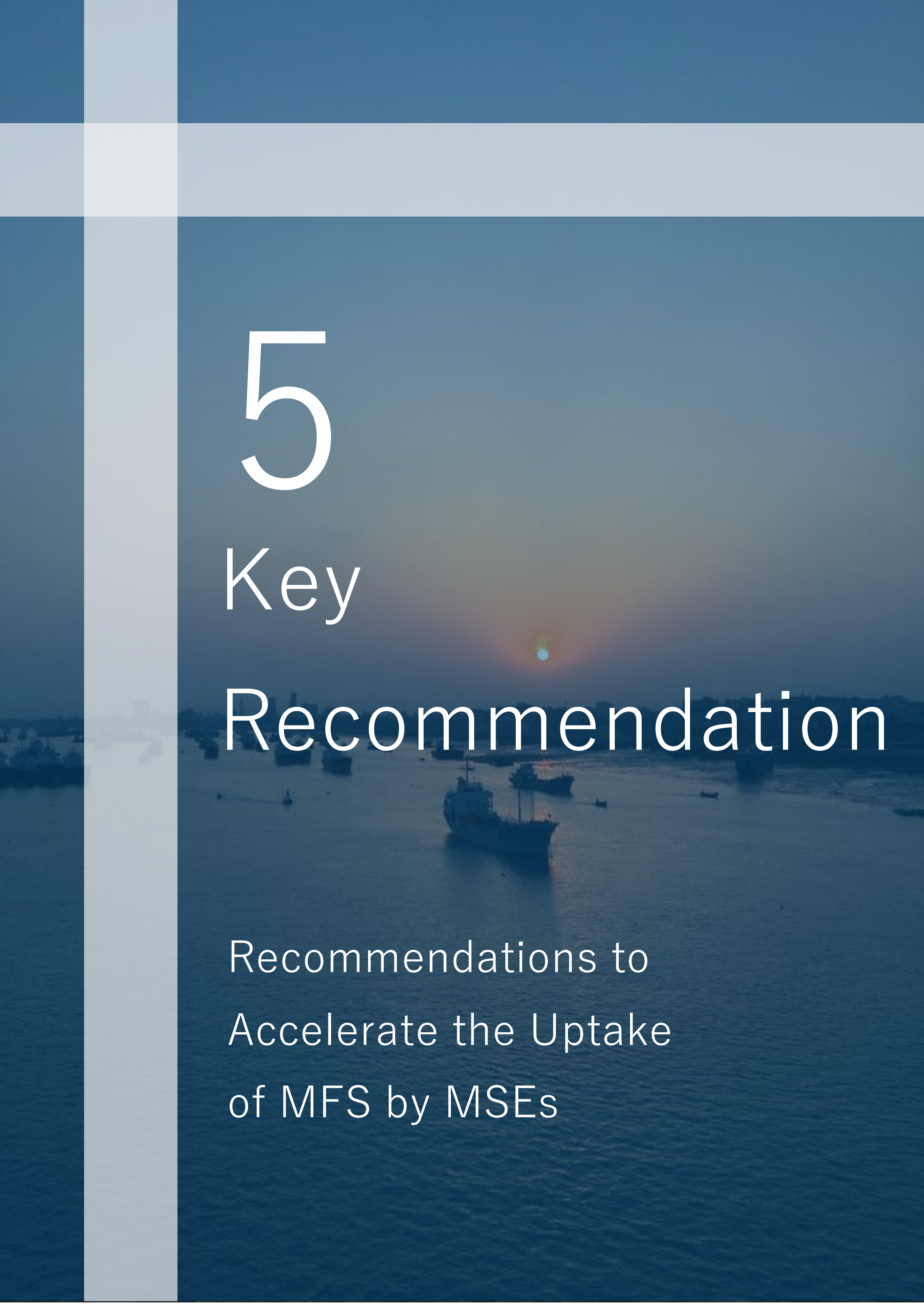
- Developing new products for MSEs;
- Adding more use-cases to the MFS account;
- Slab-based charging for various services;
- Increasing the transaction limit;
- Working out a feasible commercial model for various providers and partners.

v. Encouraging Banks to Focus on MSEs

Presently, there are approximately eight million[47] Cottage, Micro, Small and Medium Enterprises (CMSMEs) in Bangladesh. For them, access to finance remains one of the key challenges[48]. Most stakeholders suggest, in this regard, that the banks focus on the MSEs and increase the flow of funds for them.

[47] AFI, Expanding women's financial inclusion in Bangladesh through MSME finance policies, 2017

[48] http://cpd.org.bd/sme-sector-highest-opportunity-create-employment-bangladesh-mustafizur-rahman/, Accessed on 4th June, 2017



5

Key Recommendation

Recommendations to Accelerate the Uptake of MFS by MSEs

Recommendations to Promote MFS among MSEs in Bangladesh

Our analysis of the various challenges highlighted in this study suggests that resolving them would require a concerted approach by regulators, policymakers, providers, and other industry players. In this section, we provide specific recommendations to increase the adoption and uptake of MFS by MSEs in Bangladesh. We also present a number of case examples to learn from the global examples.

1

The Bangladesh Bank should release revised, comprehensive guidelines on MFS with a special focus on MSEs.

The MFS market in Bangladesh requires comprehensive guidelines to develop an enabling, fair, and competitive environment. The new guidelines should present the central bank's vision and plans to promote the DFS (and not just MFS) sector in the country. The revised guidelines should define the following in an unambiguous manner:

- Scope of MFS;
- Norms to allow for tiered KYC and e-KYC;
- Vision on interoperability, customer protection, data privacy, risk management framework;
- Policies for regulating and supervising the MFS sector in the country.

In addition, the guidelines should bring more clarity in terms of players that can apply for a licence, whom they can partner with, how much would be the ceiling on ownership, as well as the types of MFS account that the providers can offer. Such information will also facilitate the decision-making of the MFS players.

Case study on offering types of mobile money account based on tiered KYC: Spotlight on Pakistan

Refer to case box 8

It should be noted that the guidelines on MFS and agent banking should complement each other so that the digital payments market can grow. The MFS guidelines should categorically highlight the central bank's vision of allowing more separate entities/subsidiaries of a bank, promoting competition and innovation in the market by allowing more new, non-bank players to enter the MFS market, and organising financial literacy campaigns and workshops in the country.

In addition, the guidelines should emphasise on MFS usage among MSEs. The central bank should allow MFS providers to offer a separate business account to the MSE owners to meet their business requirements. The guidelines should essentially cover the process of on-boarding MSEs, types and features of the business account, transaction charges as well as incentive for MSE owners to use MFS for business transactions.

It would be useful for regulators to study and understand live, successful examples from initiatives like interoperability in other countries such as Tanzania.

> Case study on positive impact of mobile money account-to-account interoperability in the market: Spotlight on Tanzania.
>
> Refer to case box 2

The revised guidelines on MFS will bring clarity among the industry players to better understand the intent and vision of the regulator. This is likely to encourage more MFS players to enter the market and innovate new products for a range of customer segments. The resulting competition will then push the market towards reduced competitive charges, better customer service, and innovative products and services for the customers.

2

Ecosystem players need to improve coordination, invest in capacity-building at multiple levels and various thematic areas, and foster cohesive partnership to develop a digital ecosystem for promoting MFS among MSEs.

The Bangladesh Bank should work with BTRC to improve coordination among industry players and develop a favourable environment for sustainable partnership and fair competition. Firstly, BTRC and BB should work together to resolve the pending issue of commercial agreement between MFS providers and MNOs, and finalise a session-based USSD pricing. Secondly, there should be substantial efforts made to build the capabilities of various regulators, such as BB, BTRC, and MRA on a technical understanding of MFS and DFS operations.

> Bangladesh Bank should work with BTRC to improve the coordination among industry players and develop a favourable environment for sustainable partnership and fair competition.

The regulators should also explore and understand global best-practices, the use and limitation of technology, payments and settlements, product innovations, interoperability, regulatory framework, and risk and fraud management, among others. The regulators should learn and understand the scope and potential of MFS for other markets, industries, and sectors. For instance, MRA should not only understand the present business of MFS but also interact with key stakeholders, such as SME Foundation. These institutions can provide insights into the functioning of SMEs, and can suggest the needs of and challenges faced by MSEs and credit institutions. These interactions should be used as a launch pad to visualise the potential of MFS for MSEs and should be helpful to draft broad contours, such as a regulatory body, product portfolio, and delivery mechanism, among others.

There are various practical options to build the technical literacy, knowledge, and skills of the regulators on the potential and use of DFS. The regulators, for instance, should undertake exposure visits to various countries to explore specific thematic areas. For instance, they could visit India to learn about supervision, eKYC, tiered KYC, and Direct Benefit Transfers (DBT). The regulators could visit Tanzania to understand wallet-to-wallet interoperability and travel to the Philippines to see the usage and impact of companion cards.

In certain cases, the regulators can partner with Alliance for Financial Inclusion (AFI) for the exposure visits. In addition to the visits, the regulators should plan training and mentoring sessions for high-level stakeholders and staff members to impart technical knowledge of DFS. For this, the regulators can engage with globally reputed training institutes like the *Helix* Institute, or experts from other countries.

For these initiatives, the regulators can seek financial as well as technical assistance from various international donor agencies to build their capacities, both by knowledge-sharing and learning from global practices. In essence, it is imperative to acknowledge that collaboration among various regulators would be the key enabler to develop a comprehensive DFS ecosystem in Bangladesh.

3

Regulators should formulate a uniform USSD pricing policy for all MFS providers to promote a fair and competitive environment.

A uniform USSD pricing policy will simplify the entry barrier and encourage smaller, new players to easily 'plug and play'. The entry of an increased number of such players is likely to drive competition in the monopolistic market of Bangladesh. The regulators should set up a platform to discuss and explore the options of formulating a fair USSD pricing. Such a pricing policy can be either based on session, successful transaction, or monthly subscription. However, looking at the global practice, we suggest that the regulators should adopt a fair, "session based pricing". For this, we propose that the regulators undertake a financial modelling exercise on costing and pricing of a USSD session. It should, however, be noted that such an exercise would be time-consuming. In the interest of market players and MFS users, the regulators can set an interim tariff for USSD sessions. The regulators can learn from other countries such as Kenya and India to adopt session-based USSD pricing policy.

> Case-study on progressing towards developing a regulatory framework for the use of USSD for MFS: Spotlight on India
>
> Refer to case box 15

A uniform and fair USSD pricing policy would encourage new, small and/or less active MFS players to operate in a level-playing environment. Our analysis suggests that most MFS players, which considered preferential USSD pricing as a bottleneck, would extend its reach, cater to new customer segment, explore new partnerships, and innovate products. A fair pricing environment would enable all players to extend their MFS services to the MSEs, which holds huge potential in Bangladesh.

4

MFS providers need to design and re-engineer products for MSEs. They should explore the possibility of aligning the tariff for a greater uptake and usage.

This is required to move the MFS market beyond cash-in, cash-out and payments. Most people in Bangladesh are aware of MFS. Providers can utilise this customer awareness to either innovate new products or re-engineer existing ones to develop tailor-made financial and non-financial solutions for the MFS users.

Case study on leveraging mobile financial services for MSEs: Spotlight on Kenya

Refer to case box 9

For instance, there are around eight million MSEs in the country. Our research suggests that they are willing to adopt MFS for business purposes, provided the products are customised to their needs. Therefore, the providers should work towards creating a separate account for the MSEs. This account would have different features as compared to those in the existing MFS account for a general customer.

In addition, providers should revise their tariff (which most users consider expensive and prohibitive to MFS uptake) and create a pilot to assess the impact of reduced, preferential tariff on a small, closed section of MSEs. They can then use the learning to improvise and scale-up the new tariff model across all MSEs.

The provider should realise that the MSE owners, in addition to being their customers are also their front-end resources to educate the customers on the use of MFS and its features. As a result, the MFS providers should plan to educate and train MSE owners and staff to operate just like MFS agents and promote MFS among customers.

Case study on making merchant payments using mobile money account: Spotlight on Ghana

Refer to case box 5

5

The Bangladesh Bank needs to constitute a new, exclusive department to monitor and supervise the DFS sector in the country.

Considering the pace at which the MFS sector has been growing in Bangladesh, it is essential that a dedicated department is set up to regulate and supervise the DFS sector. The department should play a pivotal role to formulate policies, strategies, regulatory norms, and supervisory protocols to promote MFS in the country while fostering a favourable environment for all players. In addition, the department should be able to influence key industry players to effectively drive the MFS sector in Bangladesh. The new department should have representatives who possess adequate technical knowledge of DFS regulations, risks and fraud, Information and Communication Technology (ICT),

The department should play a pivotal role to formulate the policies, strategies, regulatory norms and supervisory protocols to promote MFS in the country while fostering a favourable environment for all players.

telecommunications, MFIs, insurance, and banking, among others. The department should be well-aware of the current MFS landscape as well as its potential as well as risks. The department should ensure that the market intelligence unit has access to data from MFS providers, and is robust enough to run big-data analytics to identify, analyse, and investigate fraudulent and suspicious transactions on a near-real-time basis. The new department should also have a dispute resolution and grievance mechanism to resolve issues through an unbiased approach.

The exclusive department will help in developing and disseminating the vision and strategy of financial inclusion and DFS. By setting an exclusive department for all DFS related businesses, MFS players would find the process to approach the regulators fairly smooth. Moreover, this department can support industry growth, float consultation papers and act as a single point of contact for all regulatory and supervisory elements.

6

Stakeholders should work towards linking MFS accounts with the National ID (NID) database to uniquely identify users.

This KYC verification using NID will help Bangladesh Bank to identify unique MFS users and keep a track on fraudulent and duplicate MFS accounts. This initiative has significant potential to limit the multiple accounts used especially by MFS agents to facilitate OTC transactions. Similarly, the bank and MFS accounts of customers should also be linked together as well as with the NID. In the long term, this can enable an interoperable environment where users can transact (push/pull) conveniently between the bank and MFS account.

This linkage will be of significant advantage to the government for all bulk Government-to-People (G2P) disbursements, such as social security payments. The linkage will enable the government agencies to uniquely identify a beneficiary, thereby eliminating the instance of ghost or duplicate beneficiaries. This, in turn, has to potential to prevent leakages and save significant amounts for the exchequers.

Based on learnings from India, the integrated platform can also be used to conduct transactions using biometrics for authentication. The platform can be used to also conduct NID-to-NID transactions (known as an *Aadhaar*-to-*Aadhaar* transaction in India), as well as for merchant payments using NID number for customer/account identification and biometric for authentication (known as *Aadhaar* Pay in India).

7

The Bangladesh Bank needs to comprehensively review the risk management framework for the MFS sector to strengthen supervisory compliance.

This important step will enable the regulators to avoid instances of fraud in the financial sector and create create an enabling environment for the market players to operate with confidence. The central bank, hence, should define a comprehensive risk management framework that is compliant with global standards for the DFS market. This should strengthen the risk management practices within the sector to better address issues of AML/CFT and fraud in DFS. Such efforts should work towards restoring/building trust and confidence in the financial sector of Bangladesh.

8

Policy makers and MFS providers should encourage MFS usage to promote its uptake among MSEs.

This can act as an enabler to catalyse the uptake of MFS in Bangladesh and move beyond payments. Access to Information (a2i), Bangladesh Bank, and MFS providers should work towards devising a program to encourage MFS usage. The initiative will not only promote the adoption and usage of MFS among the MSEs but also among general users.

MFS providers can motivate users in the form of cashback, joining bonus, referral bonus, loyalty points, and discounts on goods and services purchased using MFS. The providers can also tie up with various retail outlets and offer exclusive offers to customers making payments using an MFS account.

Case study on government and policy makers incentivising the usage of digital payments in the country: Spotlight on India

Refer to case box 4

On the other hand, the policymakers can devise ways to offer tax incentives to the MSEs that conduct payments using MFS account for business purposes. This should encourage those MSEs that are sceptical about using MFS, as digital transactions would leave digital footprints. This will make it easier for the Income Tax Department to track the income level and tax declaration of MSEs. As a result, policymakers and Ministry of Income Tax should formulate a policy that offers a tax rebate to MSEs that use MFS and encourages them to adopt MFS for business purposes.

9

MFS providers should develop more products and services, routine use-cases, and value propositions for the users to adopt and avail MFS for frequent usage.

The preference and uptake of MFS in Bangladesh can potentially increase through the introduction of certain products, such as companion cards and specialised services. One such service can be the provision of an account statement, which would be especially useful for MSEs. A tangible product like the companion card is needed to gain the trust of the low and middle-income segment on MFS. Providers can build on the learnings from other countries, such as Cambodia and the Philippines, which have been successful in launching companion cards and have witnessed significant growth in their mobile money business. In addition, providers should deliver services like transaction history to MFS users, especially MSEs. The providers and banks should develop a mechanism to build upon the usage pattern of MFS account and cross-sell other products. These products can be short-term credit (three to six months), micro-insurance, a facility for loan re-payment, provision to pay taxes to the government (P2G), and salary disbursements. In addition, the MFS providers can build products around use-cases, such as school and college fee payments, term-loans, and utility bill payments.

In addition, the providers should split the market into segments, based on demographics, preferences, lifestyle, transaction points, and income pattern. Based on the segments, the providers should then conceptualise and promote various use-cases and tailor-made value propositions. The providers should also simplify their USSD User Interface (UI) and include vernacular language support.

Our analysis suggests that more use-cases will encourage more users to adopt and use MFS for various personal and business needs. This is also substantiated by the fact that MFS is considered to be a much accessible and convenient option to transact than other modes.

10

Policy makers and regulators should develop a regulatory sandbox[49] for various players to innovate new products and services for the MSEs.

This initiative will leapfrog the efforts of Bangladesh Bank to move beyond payments and offer an enabling environment to various players to develop innovative financial and non-financial solutions for the financially excluded masses. A regulatory sandbox is likely to attract new-age and innovative fintech players to test innovative products and services for various customer segments such as MSEs. The policy makers may also offer mentorship opportunities to these players to develop low-cost, scalable and relevant savings, credit, deposit, pension and insurance products. The provision of a regulatory sandbox will potentially assist the developers to conceptualise innovative solutions and source financial aid from international donors to develop and test such solutions.

Case study on Central Bank providing a sandbox to kick-off fintechs: Spotlight on Malaysia

Refer to case box 12

11

Stakeholders should set-up and operationalise a Credit Information Bureau (CIB) to better evaluate a borrower and facilitate loan disbursement through MFS account.

This initiative will benefit MSEs to meet their need for credit to set and expand their businesses. The Credit Information Bureau database should be integrated with the NID system to be more effective. The CIB system will then be able to offer a powerful information solution to lenders to gain a clearer understanding of the financial reputation and credit history of the borrower. This comprehensive data and information can be used to create credit scores for all borrowers, which can be shared with the credit institutions to help evaluate loan requirements. This will eventually avoid instances of multiple and/or over-borrowing.

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49 A regulatory sandbox is a supervised space, hosted or endorsed by the regulators. It allows innovators to test their innovative products, services, business models and delivery mechanisms in the real market, with real consumers. It enables temporary, limited-scale testing of a new product in a live environment without following some or all legal requirements, subject to predefined restrictions. The participating firms are expected to have a clear objective and test their innovation for limited duration with a limited number of customers.

MFS providers can also use the system to provide digital credit to the MSEs in their MFS account. The credit score available with CIB as well as the transaction history of MFS (user/business) account can provide adequate information to the MFS providers to facilitate credit to MSEs in a short span of time.

The CIB system will offer a powerful information solution to the lenders to gain a clear understanding of the financial reputation and credit history of the borrower.

Case study on offering digital credit through mobile money account: Spotlight on Kenya

Refer to case box 10

12

MFS providers should target specific sectors and sub-sectors across different micro and small-enterprises to uptake MFS for business.

This initiative will enable MFS providers to target MSEs as a new set of customer group to expand their coverage. MFS providers need to target specific sectors and sub-sector at different areas such as metro, rural, non-metro areas based on the prevalent MSE-sector booming in that particular division. A suggestive list of enterprises with their division is given below. The list of enterprise is prepared based on the real-life experience of MSEs who use MFS for their personal and business usage. We feel this will be useful for MFS providers to support in the uptake of MFS.

Division	MSE type	Sector	Enterprise	Area (Metro/OMA/NMA/Rural)
Dhaka	Small	Small Service	Distributor (Pharmacy)	Metro
	Small	Service	Traders (Retailer/Supplier)	Metro
	Small	Manufacturing	RMG factories	Metro and OMA
Mymensingh	Micro	Service	Poultry Trader	Rural
	Micro	Service	Automobile service	Rural
	Micro	Service	Pharmacy Retailer	Rural
	Micro	Service	Sweet Shop	NMA
Rangpur	Small	Agriculture	Pisciculture	Rural
	Small	Agriculture	Duck Rearing	Rural
	Micro	Service	Crockery Trader	OMA
Khulna	Micro	Agriculture	Floristry	Rural
	Micro	Agriculture and Service	Floristry and Travel agent	Rural
	Micro	Agriculture	Potato Farms	Rural
Chittagong	Micro	Service	Garments retailer	Rural
	Small	Service	NGO, sweet shop	OMA
	Micro	Service	Dairy farm	Rural

Summary of Recommendations

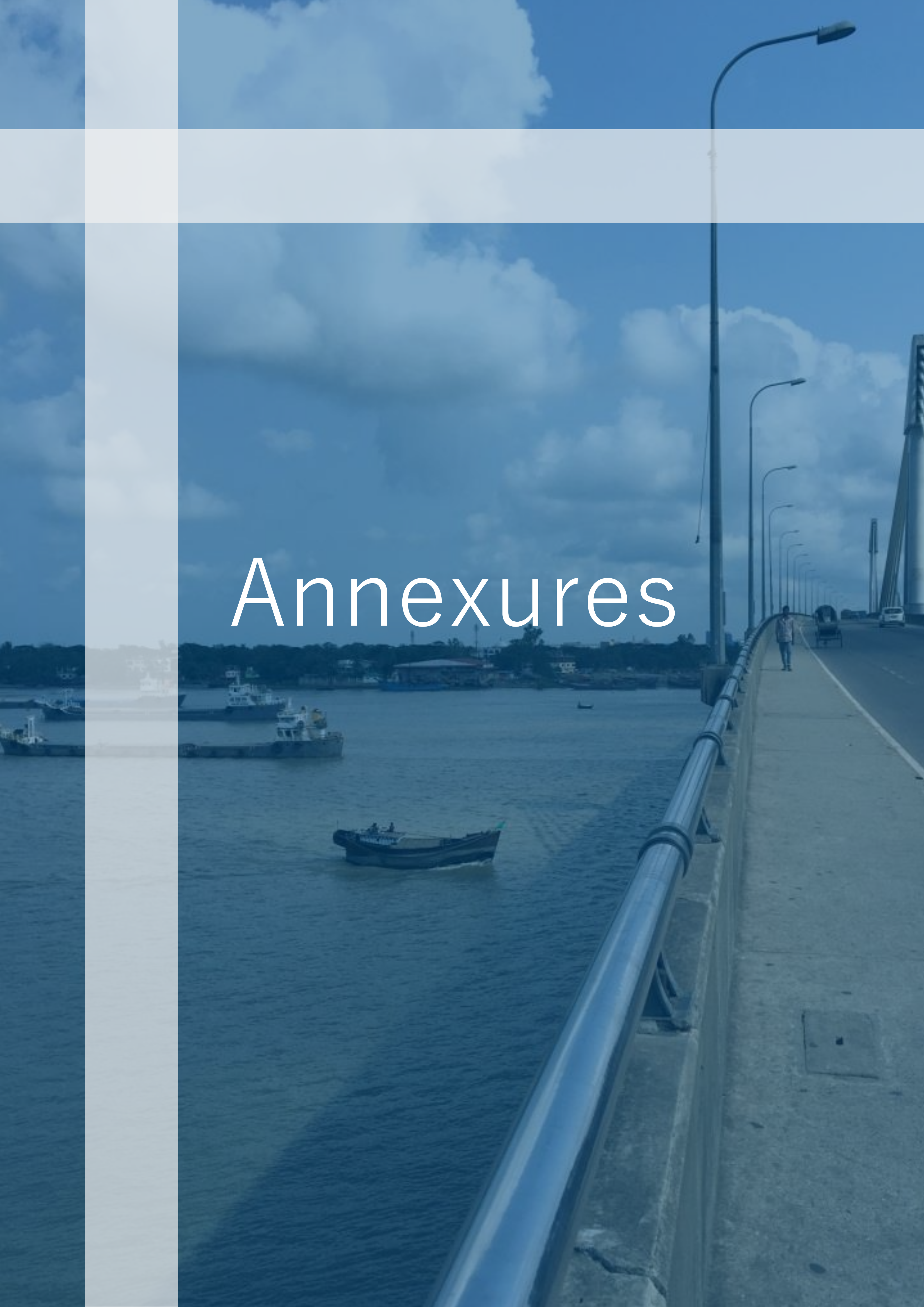
A. Short-term recommendations (likely to take up to six months for implementation)					
S.No	Recommendation in brief	Implementing agency	Stakeholders to be impacted	Priority level	NFIS*
1	Formulate and release an amendment to the comprehensive guidelines on MFS with a focus on MSEs	Bangladesh Bank	MFS users	High	
2	Re-define transaction limit for pre and post KYC MFS account	Bangladesh Bank, MFS Providers	MFS users	High	
3	Engage 'Banking Supervision Department' of Bangladesh Bank for monitoring and supervising MFS within Bangladesh Bank	Bangladesh Bank	Bangladesh Bank	High	Yes
4	Explore the possibility of a separate MFS business account for MSEs	MFS Providers	MSE using MFS	High	
5	Identify specific sectors and sub-sectors across different micro and small-enterprises to use MFS for business	MFS Providers	MSE using MFS	Medium	

* Prospective focus area for NFIS (Yes/No)

B. Medium-term recommendations (likely to take seven to twelve months for implementation)					
S.No	Recommendation in brief	Implementing agency	Stakeholders to be impacted	Priority level	NFIS
1	Introduce e-KYC and tiered-KYC (pre or post) to on-board MFS customers	Bangladesh Bank, a2i, BTRC	MFS users	High	Yes
2	Allow a separate entity/subsidiary of a bank to offer MFS	Bangladesh Bank	Banks, MFS providers, Fintechs	High	
3	Promote competition and innovation by allowing entry of new, non-bank players	Bangladesh Bank	MFS providers, Fintechs	High	Yes
4	Capacity building of regulators on MFS usage for MSEs	Bangladesh Bank, Microcredit Regulatory Authority, MNOs	Bangladesh Bank, MRA	Medium	
5	Improve coordination among regulators and foster cohesive partnership between MNOs and MFS providers	Bangladesh Bank, BTRC, MFS providers, MNOs	MFS providers, MNOs	High	
6	Formulate a uniform USSD pricing policy	Bangladesh Bank, BTRC, MFS providers, MNOs	MFS providers, MNOs, MFS users	High	
7	Risk management framework	Bangladesh Bank	MFS providers, MFS users	High	Yes
8	Recognise MFS as a complete tool for financial inclusion, that is, MFS with bank account	Bangladesh Bank	MFS users	High	
9	Develop more products, use-cases, and value propositions like digital credit	MFS Providers	MFS user and non-users	High	

C. Long-term recommendations (likely to take between 12 and 36 months for implementation)					
S.No	Recommendation in brief	Implementing agency	Stakeholders to be impacted	Priority level	NFIS
1	Work towards implementing interoperability among MFS providers	Bangladesh Bank, MFS providers, Switch provider, BTRC	MFS providers, MFS users and non-users	High	Yes
2	Link MFS accounts with National ID database	Election Commission, Bangladesh Bank, MFS Providers	MFS users	Medium	Yes
3	Introduce slab-based charging mechanism for various services	MFS Providers	MFS users	Medium	
4	Set up a Credit Information Bureau (CIB) and credit rating of individual users.	Bangladesh Bank, Microcredit Regulatory Authority	MFS users, MFS providers	Medium	Yes
5	Develop a regulatory sandbox for providers to innovate new products	Bangladesh Bank, a2i	MFS providers, Fintechs	Medium	Yes

Annexures



Annex A: List of Stakeholders

Name of organisation	Designation of stakeholder(s) team interacted with
Access to Information (a21), Prime Minister's Office	Programme Coordinator
Association of Bankers, Bangladesh	President
Association of Mobile Telecom Operators of Bangladesh (AMTOB)	Secretary-General
Bangladesh Bank, Payments System Division	General Manager
Bank and Financial Institutions Division (BFID), Ministry of Finance, Govt. of Bangladesh	Additional Secretary
Banglalink	MFS team member
Bank Asia	President and Managing Director; Vice President, Agent Bank Division
bKash, a BRAC Bank company	Chief External and Corporate Affairs Officer (CECAO); Head of External Affairs, External and Corporate Affairs Division
BRAC	Team Leader Social Innovation Lab; Deputy Manager, R&D Microfinance
Bangladesh Telecom Regulatory Commission (BTRC)	Director
CloudWell	Managing Director

fhi360	Team Lead, DFS; Technical Lead
Grameenphone	Deputy General Manager, Head of Strategic Initiatives, Financial Services
Finance and Markets, World Bank Group, IFC	Consultant
Institute for Inclusive Finance and Development (InM)	Executive Director
Islami Bank	Senior Vice President and Head of Division; Senior Principal Officer and Incharge
Mastercard	Country Manager, Lead- Remittance, South Asia
Microcredit Regulatory Authority (MRA)	Executive Vice-Chairman
MicroEnsure	Country Manager
Palli Karma Sahayak Foundation (PKSF)	Deputy Managing Director
Poverty Reduction through Inclusive and Sustainable Markets (PRISM)	Team Leader, Technical Assistance to Bangladesh Small and Cottage Industries Corporation (BSCIC)
Robi Axiata Limited	Manager, M-money, Digital Services Division
SME Foundation	DGM and Board Secretary, Head of Credit
SSL Wireless	Chief Operating Officer
SureCash	Assistant Vice President, Business Development
UCB	Assistant Vice President and Head of MFS Division; Head of Business, Development and Operation, MFS Division

Annex B:Case Studies

Case Box - 1

What can MNOs do to Promote MFS market: Spotlight on Bangladesh

Global examples clearly suggest that MNOs are capable of successfully managing the mobile money business. As a result, one can see both the telco-led and bank-led models in most African countries as well as a few South Asian countries. The MNOs have the capability to bring the following propositions into the market:

- Huge Investment Capability and Risk-appetite
  Most MNOs have already made a significant investment in building and expanding the infrastructure for their core telecommunication business. MNOs, in the form of Foreign Direct Investment (FDI), has the ability to invest significantly to grow the MFS business. Furthermore, MNOs bring along a higher risk-appetite to absorb the losses that are likely to be incurred during the initial few years of launch. They have the experience of investing for long-term gains without worrying about short-term losses.

- Experience of Launching Sachet Products
  MNOs can leverage their learnings and expertise of launching sachet products, tailor-made for different segments. They have the experience of building a sustainable business-case by facilitating small ticket-size transactions. They are comfortable in developing, for instance, a 10 BDT emergency credit product for a rickshaw puller. Some of the MNOs have already started offering life and health insurance products to the customers in the country.

- Better Understanding of Consumer Behaviour
  MNOs possess extensive data about their consumer base. Data, such as the purchase pattern on airtime top-ups, location, incoming and outgoing calls, etc., if analysed critically, provides an excellent opportunity for the MNOs to better understand their customer segments and its needs. For instance, an MNO can analyse the call pattern to understand the nature of migrants, duration of migration, as well as the location where the money is sent. MNOs can use such insights effectively to set up an agent network and cross-sell other product to the customers. MNOs also know when the salary is credited to a customer's account. This allows them to design a suitable product and offer better incentives for customers to avail it.

- Global Experience in Offering MFS
  All MNOs in Bangladesh are owned by foreign companies. Most of the MNOs already offer mobile money services in other countries. This allows them to bring in learnings and experience of managing an MFS business. MNOs also have the capability to comfortably on-board technical experts with the right skills to support its MFS business. These advantages amount to better service offerings for MFS providers.

Source: Interviews with MNOs in Bangladesh

Case Box - 2

Positive Impact of Mobile Money Account-to-account Interoperability in the Market: Spotlight on Tanzania

Interoperability is the ability of different applications and systems to communicate with each other. It enables customers of one mobile money provider to send money directly to the accounts of customers of another provider. Today, interoperability between mobile money providers is live in 15 markets, such as India, Indonesia, Nigeria, Pakistan, Tanzania, Egypt, Philippines, and Jordan. Interoperability is considered important as it increases the value of mobile money for consumers, businesses, and the economy. In mature markets, interoperability can help businesses manage costs, increase efficiencies through shared infrastructure, and increase transaction volumes. Customers benefit from enhanced customer experience, network effects and, in ideal cases, from reduced transaction costs.

Most interoperability implementations are still at a nascent stage, while market maturity levels are varied. In this situation, it may be too premature to clearly quantify the long-term positive benefits of domestic interoperability between mobile money providers. One market, however, that has reaped the greatest benefit from A2A interoperability among mobile money providers is Tanzania – the first country in the world to achieve full mobile money interoperability.

Tanzania launched mobile money in 2008. Presently, there are four mobile money providers in the country – Airtel Money, Tigo Pesa, Vodafone M-Pesa, and Zantel Ezy Pesa. As of March 2016, there were 16.5 million registered mobile money accounts in the country. The four mobile money providers had reached an interoperability agreement back in September 2014, which would allow their customers to interact with each other. To raise awareness about interoperable mobile money services, IFC launched a consumer education campaign in Tanzania March 2017. The broad objective of the campaign was to promote financial inclusion in the country.

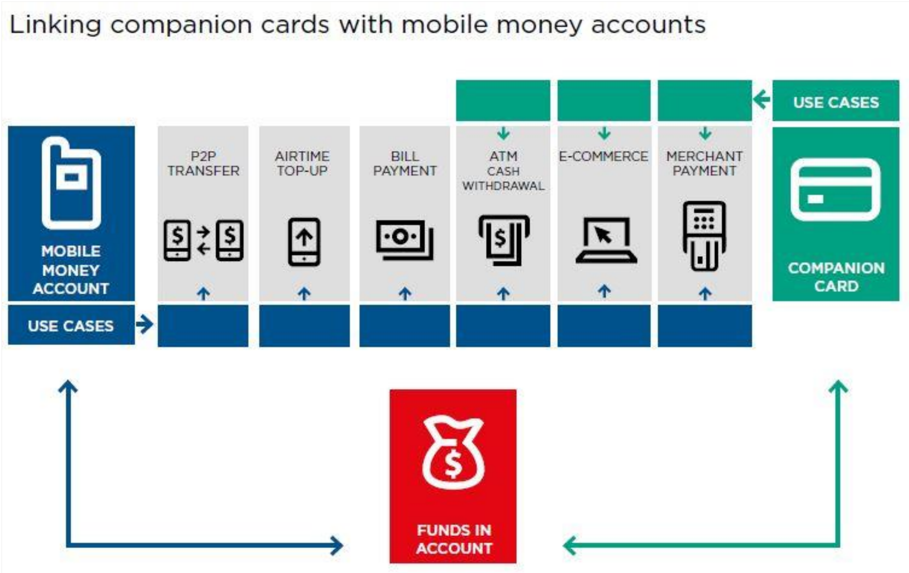
With time, there is emerging data that highlights the positive impact of interoperability for various providers. For instance, Tigo Tanzania has experienced an average monthly growth (in value) of 17% across inbound (or receiving) and outbound (or sending) P2P transfers since the launch of interoperability in Tanzania. Airtel Tanzania also reported that interoperable P2P transfers had tripled. Moreover, Airtel has experienced consistently strong growth – at least 10% every month and more than US$ 16 million is processed in interoperable transfers every month. Vodacom, the most recent provider to connect with Airtel and Tigo, has reported more gradual transactional growth. Vodacom views domestic interoperability as an opportunity to increase convenience for customers, especially those who may operate across multiple accounts.

Source: GSMA, "The impact of mobile money interoperability in Tanzania", September 2016; CGAP, "Bankable Frontier Associates, Interoperability and the Pathways towards Inclusive Retail Payments in Pakistan", 2012; GSMA, "State of the Industry Report on Mobile Money 2010–2016", 2017.

Case Box - 3

Increasing Digital Payments by Offering Companion Card linked to Mobile Money Account: Spotlight on Cambodia

The GSMA defines companion card as a debit or pre-paid card, which is linked to the same source of funds as the mobile money account. In recent years, several mobile money deployments across the globe have started offering companion cards alongside mobile wallets. Users who have a companion card can use either their phone or their card to pay for goods in stores, make purchases online, or withdraw cash at ATMs, all funded by their mobile wallet. Companion cards play a critical role, especially in environments where the shift to digital payment has not been smooth, to support the transition from cash-based to cashless.



As of August 2016, there were at least 24 mobile money deployments globally offering a companion card. The mobile money providers that offer companion cards cite the uptake of various use-cases, such as merchant payments, e-commerce and ATM withdrawals. In addition, they also report an increase in customer acquisition in cases where cards are aspirational for the target customer segments. Whether offered as an optional channel or as part of the basic package, companion cards can change the overall economics and value proposition of a mobile money service.

Launched in 2009, WING Money in Cambodia is a successful example of a mobile-based service provider offering companion card to its customers. It provides cash-in, cash-out, bill payment, airtime top-up, person-to-person (P2P) transfers, and sending money to non-WING customers using a secure PIN number. While WING offered an affordable money transfer service in Cambodia, it faced challenges in motivating people to change their old habits of being cash-dependent. WING Money partnered with Foreign Trade Bank of Cambodia and VISA to cater to this customer segment, offering the FTB-Wing pre-paid VISA card. Customers can use this prepaid VISA card to pay at stores or restaurants around the world. It offers free cash-out at FTB ATMs and can be used for online purchases and merchant payments worldwide.

A companion card has some discrete advantages for both customers as well as providers. For instance, for customers, there is an appeal in offering a form-factor that is familiar and aspirational. For the unbanked customers, such pre-paid cards may be the only possible modality of using a physical, plastic card. In addition, cards require less customer education on how they can be used, when compared to the somewhat challenging user experience on feature phone-based systems, such as USSD. Companion cards can encourage greater use of digital transactions by paying for goods at stores through the card instead of using cash. Providers can potentially benefit from their share of interchange fees, at the same time enabling customers to keep money in their accounts, which also implies savings on agent commission from cash-outs.

Source: IFC, ideas42, WING Mobile Payments; GSMA, "Companion cards & mobile money Industry landscape, insights and considerations", September 2016.

Case Box - 4

Government and Policymakers Encouraging the Usage of Digital Payments in the Country: Spotlight on India

Like most developing countries, India is a cash-dominated economy. The Government of India has been inclined to transition towards a less-cash economy through various initiatives. However, following the demonetisation exercise on November 2016, there has been a spurt in the digital payments across the country, and both the volume and amount of money transacted through digital methods has increased manifold. To further accelerate this process, the Central Government decided on a package of incentives and measures for the promotion of digital and cashless economy in the country.

Some of these incentives and measures are:

- 0.75 % discount on fuel: The government-backed petroleum public sector undertakings offered a discount of 0.75% of the sale price to consumers on the purchase of petrol or diesel if payment were made through digital means.
- POS machines in villages: The government, through NABARD[50], extended financial support to eligible banks for deployment of two POS devices each in 100,000 villages with a population of less than 10,000. The initiative has been implemented to expand digital payment infrastructure in rural areas,
- No transaction fee on digital payments: Central government departments and central public sector undertakings ensured that transactions fee/MDR charges associated with payment through digital means were not passed on to the consumers. The respective departments and undertakings bore all such expenses.
- Benefits for merchants and traders: Public sector banks were advised not to charge the merchant more than *two* dollars as monthly rental for PoS terminals/Micro-ATMs/mobile-POS. This was done to bring small merchants on board the digital payment ecosystem.
- No service tax will be charged on digital transaction charges/MDR for transactions up to USD 20.
- No tax on cashless payment less than USD 20

In addition to his, the central government appointed NITI Aayog, a central government-backed think-tank, to lead its initiative to transform India into a cashless economy. NITI Aayog launched two incentive schemes in this regard – Lucky Grahak Yojana (LGY) for consumers and Digidhan Vyapaar Yojana (DVY) for merchants for 100 days. Under the LGY, consumers were rewarded daily as well as a weekly on transactions worth INR 50 to INR 3,000, with a maximum reward up to INR 100,000. Meant for merchants, the DVY scheme had a daily reward of INR 1,000 to be given to 15,000 lucky consumers for a period of 100 days. Besides, there was a lucky draw for consumers as well as merchants. These schemes aimed to encourage digital transactions for all sections of society, especially the poor and the middle class, to adopt electronic payments. So far more than 1.58 million customers and 91,000 merchants have received daily and weekly rewards.

Source: http://cashlessindia.gov.in/package-for-promotion-of-digital-and-cashless-economy.html; https://digidhan.mygov.in/; Accessed on 12th June 2017.

[50] More about Nabard at https://www.nabard.org/; Accessed on 20th Oct 2017.

Case Box - 5

Making Merchant Payments Using Mobile Money Account: Spotlight on Ghana

In Ghana, Ecobank Ghana has partnered with KopoKopo, a company focused on building merchant networks for mobile payments, to launch a new initiative called PayWith. This service enables merchants to accept mobile money payments at the point-of-sale through a single account. Currently, MTN Ghana is in pilot mode and their solution is open to other providers to join as well. Under this model, KopoKopo is the technology partner and will connect issuers to acquirers. KopoKopo's role includes enabling SMEs to accept digital payments for their products and to benefit from value-added services such as data analytics, business intelligence, and SMS marketing tools. Ecobank plays the typical role of the acquirer and will be responsible for prospecting, recruiting, on-boarding, and managing an active base of merchants. At a later stage, Ecobank will also provide merchants with other value-added services, such as access to credit. Mobile money providers, such as MTN Ghana, the issuers, will provide channel access for their customers, communicate and drive awareness, interest, and usage at a merchant point.

Source: GSMA, "State of the Industry Report, Mobile Money", 2015.

Case Box - 6

Leveraging DFS for MFIs to Promote Women Empowerment: Spotlight on Bangladesh

Shakti Foundation in Bangladesh was founded in 1992. Its mission is to eliminate poverty and stabilise social security for poor women of the country. Presently, it has nationwide operations with 400 fully online branches in 53 out of 64 districts. Shakti serves over 500,000 households through various programmes, such as microfinance, health, agro development, and *shouro alo* (solar home system). It has been at the forefront in recognising fintech and financial technology solutions for developing a digital ecosystem through micro-digital merchants or MFS agents.

In November 2015, Shakti Foundation partnered with Dutch Bangla Bank – a prominent MFS provider in Bangladesh – to disburse micro-credit to 70,000 beneficiaries through mobile bank accounts. The average daily disbursement amounts to millions of dollars and the beneficiaries make cardless withdrawals using DBBL ATM. It has been running pilots for this product in Dhaka and Sutrapur branches, alongside pilots for other products, such as repayments and savings collection.

While the primary focus of the Foundation remains on women empowerment, it has also been running digital literacy campaigns for women beneficiaries. Shakti Foundation has also been looking towards further digital disruptions into agriculture, MSE and payments solutions, especially for their focused target groups.

Source: Stakeholder interview, http://www.sfdw.org/agreement-signing-with-dbbl-mobile-banking/; Accessed on 14th June, 2017

Case Box - 7

Using e-KYC for streamlining customer on-boarding and online transaction process: Spotlight on India

e-KYC is a paperless Know Your Customer (KYC) process which allows a resident to avail financial services without any data entry or need to carry physical documents. KYC is a procedure wherein the identity and address of the resident are verified electronically through *Aadhaar*-based authentication[51]. *Aadhaar* number is a 12-digit unique number issued free of cost by Unique Identification Authority of India (UIDAI) to the residents of India based on their biometric and demographic data. With more than 1.154 billion enrolled members, Aadhaar is the world's largest biometric ID system. Over 99% of the adults have been enrolled in *Aadhaar*.

Over the last few months, e-KYC has been used as an alternative to the existing KYC process which is done using physical copies of the identity proof and address proof. Executed on a near real-time basis, e-KYC allows residents to access their KYC details from any location at any time. The key objectives of e-KYC are to reduce the turnaround time and paperwork-related hassles endured during financial transactions. e-KYC has several advantages including a safe and secure method of verification. There will be no scope for forgery as multiple document submission is not needed. The process is much quicker than paper KYC as processes move quickly and results are immediate.

Use of e-KYC ensures process efficiency, significant reduction in lead times and costs involved, improves authenticity, and reduces challenges associated with physical documents verification and management.

Paper based KYC	Paperless KYC / e-KYC
Paper based	Electronic in nature
Physical KYC process takes between five to seven working days	e-KYC verification reduced significantly
Multiple documents to be submitted	Only Aadhaar number to be submitted
Forgery of documents is prevalent during verification	Can authenticate verification with OTP/ Biometrics

For the financial service providers, e-KYC plays a significant role in streamlining various processes – especially the customer on-boarding process and online transactions. Typically, to open a bank account in India, one has to submit a copy of one's Permanent Account Number (PAN), voter's ID or passport, alongside photographs and signature. However, with e-KYC, all one needs is an *Aadhaar* number. UIDAI confirms a person's identity online. After one provides his/her *Aadhaar* number, the provider pushes an OTP[52] to the registered mobile number. Once the OTP is verified, the KYC process is completed.

Besides, customers can send money using only the *Aadhaar* number of the receiver. In a case where both sender and receiver have their *Aadhaar* numbers seeded with a bank account, they can conduct an *Aadhaar*-to-*Aadhaar* transaction in near-real-time. Recently, the government has also launched *Aadhaar* Pay to facilitate cardless transactions only using biometrics. For this, a customer can walk into a merchant point with only his/her Aadhaar number. Once he/she authenticates the payment using his/her biometrics, the amount is debited from the customer's bank account, while the merchant's bank account is credited.

[51] *Aadhaar* authentication is a process by which *Aadhaar* number along with *Aadhaar*-holder's personal information (biometric/demographic) is submitted to UIDAI and UIDAI responds with a 'Yes/No'. The purpose of authentication is to enable residents to provide their identity, and for the service providers to supply services and give access to the benefits.

[52] OTP or One-time password is a unique number provided by the *Aadhaar*-holder to verify their identity for KYC process. This number is received on the registered mobile number of the *Aadhaar* card holder.

Case Box - 8

Offering Types of Mobile Money Account based on tiered KYC: Spotlight on Pakistan

Generally, one of the most common barriers to financially including the lower and medium-income consumers are the difficulties they face to meet the KYC requirement. In most countries, this issue resolved by introducing the concept of tiered KYC. This method of identity verification targets banks and other financial institutions to implement a flexible account opening schemes for the poor, illiterate, and financially excluded population. The concept essentially involves pairing the KYC requirements and Customer Due Diligence (CDD) into sets, or as they are commonly known – tiers. Broadly, there are two types of KYC namely, full KYC and basic KYC. The following table lists out the types of mobile money accounts and limits to the transactions under the various KYC tiers in Pakistan.

Full KYC requires standard and complete customer recognition collateral along with customer due-diligence (CDD). Basic KYC, on the other hand, is a lower criterion of verification, requiring none or minimal KYC documents.

Though tiered KYC enables easy and fast account opening for the targeted population, each category is restricted to certain transactions limits and corresponding document requirements. The concept of tiered KYC, which takes different names globally, has seen adoption in various countries, such Nigeria, Pakistan, Tanzania, Mexico, and India among others.

Account Level	Description	Transaction/ balance ceiling	Customer identification requirements
Level Zero	Basic BB account with Low KYC requirements	Per day $238.38 Per month $381.57 Per Year $1907.85 Balance $381.57	▪ Photo of Customer's national ID card ▪ Digital photo of the customer ▪ Acceptance of terms and conditions by the customer ▪ Verification of the customer's particulars from NADRA[53] ▪ Allowing one withdrawal and one deposit at the time of account opening
Level One Biometric Account	Entry Level Account with adequate KYC requirements with commensurate transaction limits	Per day $476.96 Per month $763.14 Per Year $7631.4 Balance $3815.7	▪ Photo of Customer's national ID card ▪ Confirmation of Customer's mobile phone number ▪ Physical/ digital account opening form ▪ Acceptance of terms and conditions by the customer ▪ Verification of the customer's particulars from NADRA ▪ Allowing three deposits and one withdrawal transaction during account opening

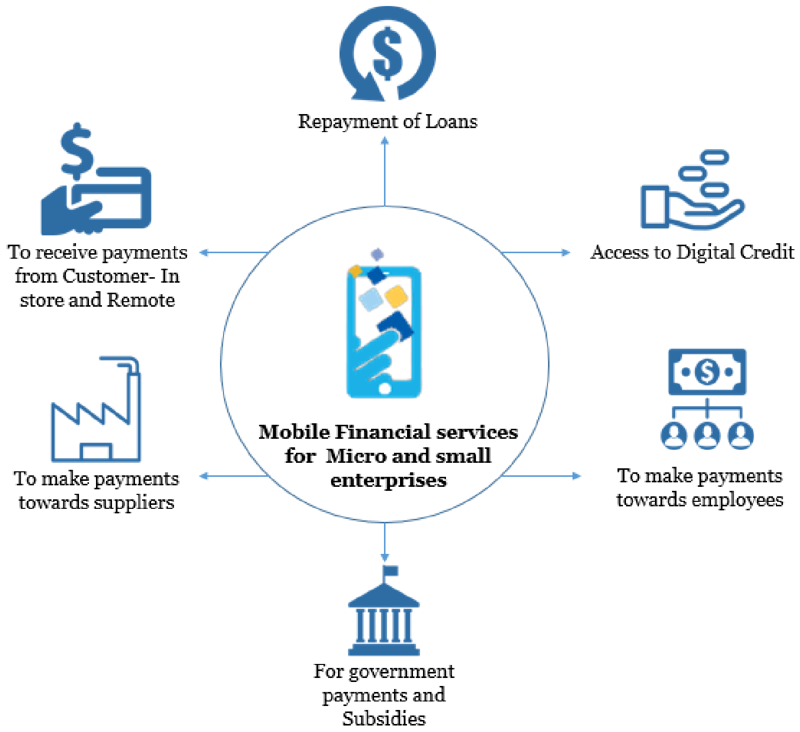
[53] National Database and Registration Authority (NADRA) was established as National Database Organization (NDO), an attached department under the Ministry of Interior, Government of Pakistan in 1998.

Case Box - 9

Leveraging Mobile Financial Services for MSEs: Spotlight on Kenya

In a digital ecosystem, MSEs can use their mobile money account for the following types of transactions:

- To receive payments from customers – In-store and remote (C2B);
- To make payments towards suppliers (B2B);
- To make salary payments towards employees (B2P);
- To make payments towards government departments (P2G);
- To receive subsidies from government (G2P);
- To avail digital credit from MFIs / financial institutions (B2P);
- To repay loan instalments to MFIs / financial institutions (P2B).



Mobile money services witnessed its biggest success stories in Kenya. M-Pesa initially started out as a way for clients to conveniently borrow and repay loans using Safaricom's network. Over the years, Kenyans have started using M-Pesa for money transfers and airtime top-ups. Currently, M-Pesa allows its users to avail services, such as pay bills, remit funds, and point-of-sale transactions among others.

Even as Safaricom reaped success with M-Pesa, only 0.01% of the businesses in Kenya had an M-Pesa merchant account. KopoKopo saw this opportunity and teamed up with Safaricom to enable merchants to accept payments through mobile money. KopoKopo provides tools to facilitate mobile payments through existing platforms, focusing on merchant payments that enable small and medium businesses to accept mobile money payments from their customers. Key activities of KopoKopo include merchant acquisition and engagement in mobile money transactions. KopoKopo acquired more than 12,500 merchants within a year since it began. As of March 2014, its transactions amounted to almost USD 3 million per month. The number of monthly transactions undertaken by the merchants through mobile money were around two to three times as compared to card payments.

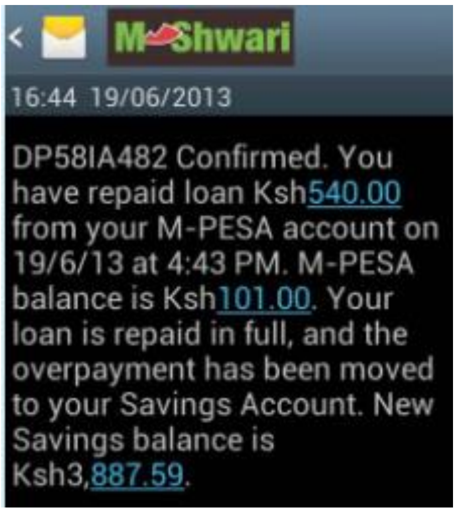
Case Box - 10

Offering Digital Credit through Mobile Money Account: Spotlight on Kenya

Commercial Bank of Africa (CBK) and Safaricom envisioned M-Shwari as a revolutionary product that would help meet its agenda of achieving complete financial inclusion in Kenya by 2030. M-Shwari came into existence as a natural progression from M-Pesa, providing a savings and instant loans service. When M-Shwari was launched, M-Pesa subscribers of over six months were eligible for the product. Safaricom launched M-Shwari to allow customers to access instant loans of $1.15- $229.88 any time in their M-Pesa wallets. To be eligible for an M-Shwari loan, one must have an M-Pesa account for at least six months. The eligibility for a loan is calculated using an algorithm based on previous transaction-behaviour. The key components of the algorithm include:

- Safaricom service usage;
- Level of regular saving with M-Shwari;
- Repayment behaviour of over-draft airtime;
- History of M-Shwari loans transacted and its repayments;
- A small collateral of 50 shillings M-Shwari savings.

As soon as this algorithm is implemented, an SMS featuring the amount of loan that the customer is eligible for is issued to the customer's number. If the loan amount is satisfactory to the customer, it is deposited in the M-Pesa account. Repayment of the loan takes place via M-Pesa as well. The loan duration is 30 days, with a 7.5% interest fee. In case of a default, the loan is to 'roll-over' for another 30 days at another added interest rate of 7.5%, making the effective rate go higher. In case of outstanding loans, any deposits made in the customer's M-Shwari account are frozen to the amount due. Eventually, a defaulting customer would lose the mobile wallet with M-Shwari if he/she is unable to pay up.



M-Shwari's initial success in Kenya may partly be attributed to the success of M-Pesa. As it was a natural progression from M-Pesa's services – offering loan and savings products – M-Shwari became a technically easy product to handle. M-Shwari was able to penetrate easily into the Kenyan mobile market, considering its easy-to-understand product features, paperless verification, credit scoring based on past history, no minimum balance requirements, and simplified fee structure. Commercial Bank of Africa uses the KYC collected during SIM card registration and M-Pesa account registration to cross-reference with the National ID system and enable customers to open up M-Shwari accounts in less than 30 seconds. Safaricom's strong brand presence and its ability to understand customer preferences well-account for its success in Kenya. One-third of all M-Pesa users are M-Shwari customers, one in five Kenyan customers are active M-Shwari customers.

M-Shwari has managed to keep up the expectations in the market. It has successfully fulfilled people's expectations in terms of loan terms, usability and customer choice in the long run.

Source: MicroSave, M-Shwari, "Market reactions and potential improvements", 2013;
IFC, "Extending Financial Inclusion Integrated savings and loans: CBA & M-Pesa launch M-Shwari; eServGlobal, M-Shwari: The model of mobile microfinance", 2015.

Case Box - 11

Using e-KYC for Streamlining Customer On-boarding and Online Transaction Process: Spotlight on India

Gaining access to finance has been one of the biggest challenges for MSEs. Currently, the total loan portfolio to MSEs in developing countries stands at USD 6.9 trillion. However, according to the World Bank, these 400 million businesses need USD 9.2 trillion of finance to thrive, creating a credit-gap of USD 2.3 trillion. This credit gap stems from the fact that many MSEs do not have a loan or overdraft but they require one (the unserved), or do have a loan or overdraft but still find access to finance a business constraint (the underserved). Small businesses and large corporates have to deal with many of the same issues, such as securing long-term funding, managing working capital, handling late payments, dealing with international customers and taking care of collections. Information asymmetry as a result of the lack of supporting financial information infrastructure limits the ability to lend. Small businesses often lack the required data, such as a history of audited statements for a bank to appropriately assess their cash-flow situation.

The case of LendingKart

LendingKart is a technology platform founded in 2014 to service the working capital finance needs of small businesses in India – both online and offline. It offers loans ranging from INR 50,000 to INR 1,000,000. The applicants apply on the company's website to avail the loan. They then upload their background information. The documents are then handed over to the subsidiary Non-banking finance company (NBFC). The entire processing is processed by technology and the loan is disbursed 72 hours from the time of application. Till date, LendingKart Finance has disbursed more than 11,000 loans to over 200,000 SMEs across India. LendingKart works on a complex set of technology tools based on Big Data analytics and machine learning algorithms to evaluate the cash flows and businesses of the clients. It uses 4,000 variables to calculate the financial health, comparative market performance, social reliability, and compliance with statutory requirements for determining the creditworthiness of the borrowers.

The case of Capital Float

Founded in 2013, Capital Float's key differentiator from traditional banks and other lenders is the reduced turnaround time for disbursing loans. They claim to have disbursed loans of the size 10 million to over 7,000 customers in 10 months between April 2016 and January 2017. Capital Float offers collateral-free working capital loans to small businesses of that range between a turnover of INR 25,000 to INR 30 million. The loan amount gets disbursed in between as little as 90 seconds to three days. Interest rates vary between 16%–20% as compared to the traditional loan rates of over 60%. The underwriting for these loans is done with little or no human intervention by algorithms based on the customers' digital footprints – mobile phones, internet usage, etc. The products offered are specifically meant for smaller businesses. Capital Float with collaboration with the IndiaStack[54] is enabling *kirana* (grocery and sundries) store owners to avail loans in a paperless manner. Capital Float's rigorous underwriting algorithm helps ensure that the non-performing asset rate stays under 1%. Their operations with multiple prominent SME players has ensured that they have a library of data on the SMEs operating in the ecosystem. This ensures reduced credit-risk.

The case of Microcred

Microcred is digital finance company with a focus on financial inclusion in Africa and China. It has been named the Best African Retail Company in 2016. It offers financial services to the underbanked sectors with an exclusive focus on MSEs. Microcred specialises in the use of technology across the value chain to enable faster and seamless services to its clients. The company's SMS-based service, Baobab, has enabled the clients to gain access to every transaction they have made. Implementation of new technologies and digitisation of their services, especially the use of tablets and smartphone, have sustainably increased their efficiency and have reduced costs.

Source: https://letstalkpayments.com/63-companies-shaping-africas-fintech-ecosystem/, Accessed on June 10th, 2017

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[54] India Stack is: A paperless and cashless service delivery system. The stack is a new technology paradigm that is scalable to handle massive data inflows, and is poised to enable entrepreneurs, citizens and governments to interact with each other transparently.

Case Box - 12

Central Bank Providing a Sandbox to Kick-off Fintechs: Spotlight on Malaysia

Bank Negara Malaysia (BNM) worked on its regulations to facilitate the development and adoption of Fintech solutions for the market. The regulation applies to all the financial institutions (including fintech). As per the regulations, these institutions have been granted certain flexibilities to experiment with various financial technology solutions in a production environment provided by BNM.

In June 2016, the central bank had requested for comments over the proposed framework from various stakeholders, including financial institutions, fintech companies, associations, and other corporates. After receiving comments and feedback, BNM defined the potential of innovation to:

- Improve the accessibility, efficiency, security and quality of financial services;
- Enhance the efficiency and effectiveness of Malaysian financial institutions' management of risks;
- Address gaps in or open up new opportunities for financing or investments in the Malaysian economy.

In October 2016, BNM introduced the Financial Technology Regulatory Sandbox Framework. The central bank then invited fintech companies to test their new, innovative ideas, and deploy solutions under the sandbox governed by the regulatory framework. It also created a unit called the Financial Technology Enabler Group (FTEG), which would oversee the applications from various fintech companies.

After receiving multiple applications from fintech companies, FTEG under the supervision of BNM approved four firms to operate within its regulatory sandbox. The firms were tasked to create innovative ways to improve the quality, efficiency and accessibility of financial services in Malaysia. The selected companies – GoBear Ltd. and GetCover Sdn Bhd are insurance aggregators, while WorldRemit Ltd and MoneyMatch Sdn Bhd provide remittance services. Under the sandbox environment, BNM allows these companies to commercially launch their services within limits set by the central bank and under close watch by the regulator.

An advanced approach and the conducive environment provided by BNM has allowed for the deployment of financial technology to foster innovations in financial services that can contribute to the growth and development of Malaysia's financial sector.

Source: Bank Negara Malaysia, Financial Technology Regulatory Sandbox Framework, Oct 2016;
https://letstalkpayments.com/fintech-innovation-in-southeast-asia-2; Accessed on 15th June'17
http://www.thestar.com.my/business/business-news/2017/05/29/bank-negara-kicks-off-fintech-with-licences-issued/; Accessed on 29th May'17

Case Box - 13

Transitioning from Prevalence of OTC Services to Adoption of Mobile Wallets: Spotlight on Pakistan

In 2009, Telenor, a telecom company, launched its mobile wallet: EasyPaisa. This wallet offers quick and easy payment solutions across Pakistan for the registered subscribers of Telenor. EasyPaisa began operations with a focus on over-the-counter (OTC) services as it's the most attractive and easy service for the customers.

Generally, products such as remittances and bill payments are pull-products for most MFS providers. EasyPaisa saw considerable potential in utility bill payments and filled the potential gap by reaching out to the customers through their OTC services. As a result, the market saw a continuous rise in the volume of utility bill payments made by EasyPaisa (through their agents).

OTC-based transactions can be a quick solution to increase the reach among people who are unbanked or hesitate to visit a bank. People, who lack technical knowledge, also shy away from using their own mobile wallet. It is easier for them to rely on the agent for the transaction than to open a personal account and operate the same. Similarly, remittance is usually preferred by migrants and daily wage earners. Investing time and energy to adopt a new technology becomes a tedious process. Thus OTC comes as a handy and easy-to-do service.

EasyPaisa soon realised that OTC services may be an important part of their business. However, it was critical that a wider digital ecosystem evolved, which would provide sufficient space for the wallet business to thrive as well. EasyPaisa took early steps in 2013 and expanded their product offering by creating a savings account with insurance features and launched a credit product tied to mobile wallet use. As the ecosystem of products and services expanded, the wallet became EasyPaisa's dominant service offering – with 2.5 million wallet users as against 5 million unique OTC users. In 2015, EasyPaisa experienced a 194% growth in mobile wallets compared to a mere 35% growth in OTC customers. This, during the period, was way ahead of the average 47% growth in registered mobile wallets in South Asia.

Apart from expanding the range of products which MFS providers can provide for the uptake in the wallet, OTC can also lead to a volatile customer base. The stickiness of customer to a particular provider is highly unlikely with the ever-increasing competition. It is largely understood that OTC transactions will remain a parallel, high-valued service for some customer segments. However, competition in the market is likely to reduce OTC to a commodity in the years to come.

Source: http://www.cgap.org/blog/"easypaisa"-journey-otc-wallets-pakistan;
http://blog.microsave.net/from-otc-to-mobile-accounts-easypaisas-journey/;
http://blog.microsave.net/beware-otc-trap-are-stakeholders-satisfied/; Accessed on 9th June, 2017

Case Box - 14

Positive Impact of Offering a Smartphone Application to the MSEs: Spotlight on Kenya

Equity Bank has grown to become one of the largest banks in East Africa in terms of customer base. With 11.4 million clients by December 2016, Equity Bank is the largest across Sub-Sahara Africa. A core business practice of the bank has been to persistently reach out to its customers and seek feedback on the services being offered, as well as ones that the customers may wish to avail. Equity Bank has repeatedly reinvented itself in its bid to be customer-centric. The bank launched its EazzyBanking app, based on the increasing number of smartphone users in the country and their demand for a smartphone application. The bank targeted the app for entrepreneurs to enable mobile commerce in Q3 2016.

As of 31st December 2016, the EazzyBanking app was downloaded 130,266 times for Q4 2016. The app is essentially an overhaul of all the digital and mobile banking offerings of the bank. Following the formidable success in pioneering branchless banking, the EazzyBanking app is tipped to be the Equity Bank's answer to traditional banking in general and Safaricom's M-Pesa in particular. The app has the following components:

- EazzyPay: To pay for goods, services, and bills
- EazzyLoan: Digital credit on mobile phones
- EazzySave: Goal-based savings on mobile phones
- EazzyNet: Online banking accessible on all devices
- EazzyBiz: An easy, secure, and convenient cash and liquidity management solution for individual, enterprise, and corporate customers. The customers can use EazzyBiz to pay, send, receive, save, borrow, and invest money.
- EazzyChama: A financial management tool for groups of people who save and borrow using group microfinance mechanisms,
- EazzyAPI: To enable developers and digital ecosystem players to use data to integrate other services seamlessly

The digitisation strategy continues to bear fruit for the bank as also has deepened financial inclusion and broadened access, which resulted in an enhanced culture of savings. The deposits grew by 11% in FY 2016, supported by the growth in the number of customers from 10.04 million to 11.13 million in the same year. The increased adoption of the new delivery channels of mobile banking under Equitel and EazzyBanking app as well as agency banking saw the number of transactions grow from 200 million in 2015 to 335 million transactions in 2016. In 2016, the bank disbursed a total number of 6.3 million of which 5.4 million (85%) were EazzyLoans disbursed through the Equitel channel, amounting to over USD 385 million.

EazzyLoans provides flexibility to users to borrow at any time, which has seen an increased adoption from micro-entrepreneurs. Compared to Safaricom's M-Pesa and other mobile money solution of telecom companies, the value on Equitel for both loans and mobile money transfers is far larger. This has resulted in higher Average Revenue Per User (ARPU) for Equitel than other mobile money providers.

The new self-service channels have enabled customers to do their banking on their own devices. This has revolutionised money transfer and payments with customers having greater control and freedom to manage their bank accounts. The money transfer revolution confirms that customers want a banking service that is integrated into their everyday lives. The effect of using these alternate delivery channels has translated to improved efficiency and cost-saving, which is expected to continue going forward.

Case Box - 15

Progressing towards developing a regulatory framework for the use of USSD for MFS: Spotlight on India

The mobile phone has been central to many success stories of delivery of financial services around the world, particularly in the developing countries. Many African and Asian countries have developed thriving mobile banking and mobile money ecosystems around the mobile phone. M-Pesa in Kenya, Smart Money and G-Cash in the Philippines, and EasyPaisa in Pakistan are some such deployments of mobile banking and mobile money systems that have seen considerable success.

From the perspective of financial inclusion, the target groups of mobile financial services are likely to be low-income, semi-literate, and with a limited knowledge of technological applications. They would, however, be mobile phone users who are able to read simple menus and use basic applications of a phone. The comparative analysis of various channels suggests that USSD is the mode that is best-suited for delivery of MFS for financial inclusion.

In India, there are a number of stakeholders participating in the development of the ecosystem to achieve the goal of financial inclusion. Over the past few years, there have been multiple discussions in this regard among the stakeholders, such as Reserve Bank of India, Telecom Regulatory Authority of India, Digital Financial Services Department, National Payments Corporation of India, MNOs, and banks. The important discussion points common to all the meetings have been:

- Reducing the ceiling tariff per USSD session to INR 0.50 for two years and ensuring that charges are levied only on successful transactions;
- Increasing in session timer limitation;
- Increasing the upper-limit on number of stages per USSD session from five to eight;
- Enabling USSD push messages for dropped USSD sessions;
- Making provisions for a unified USSD platform, which can support transactions across all payment mechanisms.

Against this backdrop, TRAI released a consultation paper to analyse various aspects of USSD-based MFS and seek comments from stakeholders. The paper solicited responses/comments on the following aspects:

- Maximum number of stages per USSD session;
- Tariffs for USSD-based mobile banking;
- Methodology for estimating the cost per USSD session
- Who should pay the charges;
- The need to allow a USSD push session when a customer-initiated USSD session is dropped;
- Types of mobile payment and banking services to be allowed on USSD platform.

TRAI has followed a participative approach to obtain feedback and comments from various stakeholders. Although so far TRAI has made a handful of short-term recommendations, it is likely to devise a framework for promoting usage of USSD for availing banking services after further deliberations.

Source: TRAI, "Consultation Paper on the review of regulatory framework for the use of USSD for mobile financial services", August 2016

Case Box - 16

Promoting both Bank-led and Telecom-led Models to Launch Innovative Products: Spotlight on Kenya

Some of the better examples of a telecom-led model are MTN Money, Tanzania and Safaricom M-Pesa, Kenya. Here. The MNOs manage the agent network (which acts as their biggest strength), the platform, the USSD network, and offer payments and non-banking products. The MNOs maintain a trust account in a bank which holds the float for them.

On the other hand, an example of the bank-led model can be M-Shwari- a product offered jointly by Safaricom M-Pesa and Commercial Bank of Africa (CBA), Kenya. The product has two long-term partners. The first is the Kenyan mobile company Safaricom, well known for its world famous mobile money product, M-Pesa. The other partner is a local bank in Kenya, CBA, who has been a custodian of M-Pesa funds for years. M-Shwari is a savings and loan product accessible to more than 15 million users of Safaricom's M-Pesa. It gave them access to banking services – savings and loans without having to walk into a bank or fill out a single form.

Annex C: List of Abbreviations

AML	Anti-Money Laundering
AMTOB	Association of Mobile Telecom Operators of Bangladesh
B2B	Business to Business
B2P	Business to Person
BB	Bangladesh Bank
BBS	Bangladesh Bureau of Statistics
BDT	Bangladeshi Taka
BFID	Bank and Financial Institutions Division
BFIU	Bangladesh Financial Inclusion Unit
BFP-B	Business Finance for the Poor in Bangladesh
BNM	Bank Negara Malaysia
BSCIC	Bangladesh Small and Cottage Industries Corporation
BTRC	Bangladesh Telecommunication Regulatory Commission
CBA	Commercial Bank of Africa
CDD	Customer Due Diligence
CFT	Combating the Financing of Terrorism
CI	Cash-in
CGAP	Consultative Group to Assist the Poor
CO	Cash-out
CMSMEs	Cottage, Micro, Small and Medium Enterprises
DFS	Digital Financial Services
DVY	Digidhan Vyapaar Yojana
e-KYC	Electronic Know Your Customer

FIR	Foreign Inward Remittance
FTEG	Financial Technology Enabler Group
G2P	Government to Person
GDP	Gross Domestic Product
GoB	Government of Bangladesh
GSMA	GSM (Grouped Spéciale Mobile) Association
IFC	International Finance Corporation
ILO	International Labour Organisation
InM	Institute for Inclusive Finance and Development
KYC	Know Your Customer
LGY	Lucky Grahak Yojana
MFS	Mobile Financial Services
MI4ID	Market Insights for Innovations and Design
MoF	Ministry of Finance
MFI	Microfinance Institutions
MNO	Mobile Network Operator
MRA	Microcredit Regulatory Authority
MSE	Micro and Small Enterprise
MSME	Micro, Small and Medium Enterprises
ML	Money Laundering
NASCIB	National Association of Small and Cottage Industries of Bangladesh
NFIS	National Financial Inclusion Strategy
NID	National Identity
NPCI	National Payments Corporation of India
OTC	Over the Counter
OTP	One-Time Password
P2G	Person to Government
P2P	Person to Person
PAN	Permanent Account Number
PI	Personal Interview
PKSF	Palli Karma-Sahayak Foundation

PSD	Payments System Division
ROSCA	Rotating Savings and Credit Association
SLA	Service Level Agreement
TAT	Turn-around Time
TF	Financing of Terrorism
TRAI	Telecom Regulatory Authority of India
UIDAI	Unique Identification Authority of India
USAID	United States Agency for International Development
USD	US Dollar
USSD	Unstructured Supplementary Service Data

Annex D: Comparative Growth of MFS

The table below provides a comparative analysis on growth of MFS in Bangladesh compared to other countries in South Asia.

Parameters	Bangladesh	South Asia
Population (million)	164	1760
MFS, registered accounts, age 15+ (million)	50.42	164.16
MFS, active accounts (%)	48%	25%
MFS agents	0.72	1.88
MFS active agents (%)	50%	43%
Sent remittance via mobile phone (% sender)	33%	7.7%
Sent remittance via agent (% senders)	5.7%	13.7%
Received remittance via mobile phone (% receiver)	17.3%	4.7%
Received remittance via agents (% receivers)	2.4%	9.8%

Source: GSMA, SOTIR 2016, March 2017;
The World Bank, Findex, 2015;
Helix, Agent Network Accelerator Survey: Bangladesh Report, 2016.

Annex E: Approach to the Study

MicroSave conducted the study following a phase-wise approach- from project inception to dissemination. These phases are detailed out below.

Phase 1: Project Inception

Phase I started with the preparation for the study. The secondary research consisted of a desk-review of material available on the websites of the World Bank, UNDP, ADB, USAID, publications by Bangladesh Bank, the SME Foundation, Bangladesh Bureau of Statistics, BSCIC among others, as well as additional data available in the public domain and analysis of the information/data collected.

We presented the approach to key stakeholders and discussed it with them in a consultation meeting. This enabled the relevant stakeholders to scrutinise the methodology to the research. We refined the approach based on their review, inputs, and suggestions. The list of stakeholders for the initial review of the research methodology is as follows:

- SME Foundation
- Bangladesh Small and Cottage Industries Corporation (BSCIC)
- Bangladesh Bank
- Two MFS providers

Post-review by the concerned stakeholders, we modified the research methodology suitably and began preparations for the primary research.

Phase 2: Primary Research

Once the BFP-B project team and other stakeholders approved the research methodology, the second phase of the study consisting of the primary research began. The primary research for the study consisted of both a quantitative survey and qualitative research components, such as FDGs, personal interviews, and key informant interviews. This phase consisted of:

- A quantitative research survey – by the research partner with monitoring and oversight by *MicroSave*;
- Preliminary quantitative data analysis – by *MicroSave*;
- Refining the tools and sampling for the qualitative research – by *MicroSave*;
- Conducting FDGs with owners/proprietors of MSEs who use MFS- by research partner with support and monitoring from *MicroSave*;
- Conducting PIs with owners/proprietors of MSEs who use MFS – by *MicroSave*;
- Key informant interviews – by *MicroSave*.

Phase 3: Data Consolidation and Report Preparation

After the completion of the primary field research, we consolidated all data and information, that is, the quantitative field survey, the FDGs and PIs, and the in-depth interviews with key stakeholders. We then cleaned and consolidated the data received from the field research.

The data-cleaning exercise involved detection and removal (or correction) of errors and inconsistencies in the data set received from the field survey. Once any incomplete, inaccurate, or irrelevant data was identified, *MicroSave* either replaced, modified, or deleted it after consultation with our research partner's Neilsen team.

During the data analysis, the analysts looked for patterns and relationships in the raw data. The analysis gathered explanations for identified patterns and relationships, and included both descriptive and inferential methods. Once we received the final consolidated and clean dataset from our research partner, our quantitative research experts worked on the data analysis. They used quantitative data tools, such as SPSS and Microsoft Excel to analyse the data. Graphs and other pictorial representations have been used to enhance understanding and for presentation purposes.

Our approach to generating insights has been two-fold – interim analysis and behavioural mapping. We conducted an interim analysis to identify emerging themes and used tools, such as customer journey maps, persona-maps, and frequency response matrices based on the data collected. During behavioural mapping, we identified bottlenecks or challenges that a customer faced with respect to the desired behaviour. We primarily used the researchers' understanding of human tendencies and psychologies for this analysis. Together with interim analysis, behavioural mapping helped researchers develop insights crucial to the study, which were used to assess the delivery of MFS among MSEs.

MicroSave prepared a draft report for review by BFB-P, which comprised the analysis conducted in the previous stage and its results. The draft report included key learnings from the literature review and qualitative research conducted. This comprehensive report has been another deliverable from *MicroSave*.

After receiving comments on this report, a draft policy brief will also be prepared. The policy brief will be a concise summary of particular issues identified during the course of the study, the policy options to deal with these issues, and recommendations on the best possible options. This brief will be aimed at government policymakers and other key stakeholders who are interested in formulating or influencing policy. This draft policy brief will be submitted in English. The draft report will be presented in a workshop with the policy advisory committee. Any suggestions made by the steering committee will be incorporated into the final report.

Phase 4: Report Finalisation and Dissemination

After BFP-B has reviewed both the draft report as well as the draft policy brief, any comments/suggestions/inputs provided will be incorporated into both deliverables. The draft report and the draft policy brief will be presented to the policy advisory committee as well. Once the documents are updated as per the consensus of the stakeholders involved, the final report and the final policy brief will be submitted to BFP-B. The final policy brief will be submitted in both English as well as in Bangla. The policy brief will assist BFB-P to advocate for identified strategies, approaches, and policy solutions.

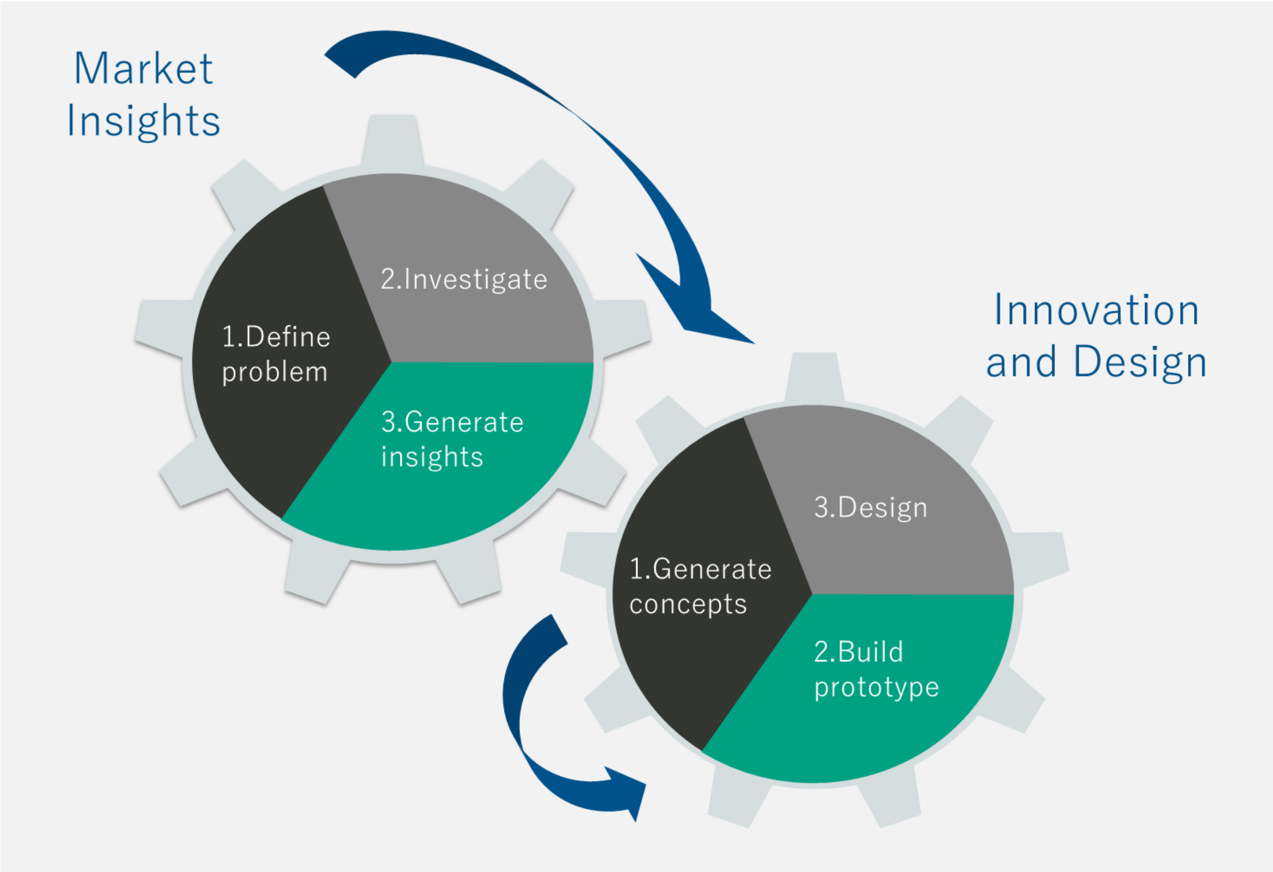
BFP-B will arrange a dissemination seminar to present the findings from the study. *MicroSave* will prepare a slide deck consisting of the key findings to be presented. This deck will be shared with BFP-B prior to the dissemination seminar for review and approval. Once any comments/ suggestions/ inputs provided by BFP-B are incorporated into the slide deck, *MicroSave* experts who were part of the study team will present the findings in the seminar.

In case any further changes need to be made to the report, based on discussions and consultations with stakeholders during the seminar, *MicroSave* will incorporate these and submit a final version to BFP-B.

Annex E: Our MI4ID Approach

MicroSave is a pioneer in exploring low-income markets and deriving strategic insights from them. These insights have helped many financial service providers in product development and channel-innovations, marketing & communications, customer service, risk analysis, process optimisation, social performance management, and impact evaluation. We have a decade-long experience of conducting participatory qualitative research in the domain of financial inclusion. We conduct causal, descriptive, and exploratory market research to inform the business strategy, product design, and operations of service providers. We take up impact evaluations using experimental, quasi-experimental, and post-facto research designs. Our mantra of 'market-led solutions for financial services' based on the need for 'market insights' and 'innovative designs' inspires us to find and deliver actionable solutions to clients and service end-users.

MicroSave has assimilated the behavioural economic research and user-centric design research techniques in its Market Insights for Innovations and Design (MI4ID) approach[55]. The research skills and tools in the MI4ID tools rely on fundamental behavioural diagnosis and employ a host of PRA, BE, and user-centric design tools. We have used MI4ID approach for a wide variety of activities that are critical for any financial institution.



[55] *MicroSave* Website, MI4ID - Market Insights for Innovation and Design, http://www.microsave.net/pages/home/mi4id_market_insights_for_innovation_and_design; Accessed on 20th July 2017

About BFP-B Project

BFP-B is a programme funded by UKaid from the British Government. The Bangladesh Bank is the implementing agency, and the Financial Institutions Division (FID) of the Ministry of Finance, Government of Bangladesh, the executing agency of this programme. Nathan Associates London Ltd. is the management agency. BFP-B is a multifaceted programme, aimed at bringing poor and marginalised people into the formal financial sector and promoting overall inclusive economic growth in Bangladesh. The programme targets 'access to finance' for Micro and Small Enterprises (MSEs) that are currently unserved / underserved by the formal financial sector.

BFP-B PARTNERS

Bangladesh Bank

Bangladesh Bank, the central bank and apex regulatory body for the country's monetary and financial system. The key functions of Bangladesh Bank are formulation and implementation of monetary and credit policies, regulation and supervision of banks and non-bank financial institutions, promotion and development of domestic financial markets, management of the country's international reserves and issuance of currency notes.
www.bb.org.bd

UKaid

BFP-B Project is funded by UKaid from the UK government through the Department for International Development (DFID) which leads the UK's work to end extreme poverty that includes ending the need for aid by creating jobs, unlocking the potential of girls and women and helping to save lives when humanitarian emergencies hit. The UK government is currently among the largest bilateral donors to Bangladesh.
www.gov.uk

Nathan Associates London Ltd.

Nathan Associates London Ltd. specialises in innovative programmes to reduce poverty, offering expertise in private sector development, trade policy, rural development, agriculture, and economic and financial sector development. Nathan Associates London has been awarded the contract by DFID to deliver technical and financial assistance under the BFP-B Project.
www.nathaninc.com

Oxford Policy Management (OPM)

Oxford Policy Management (OPM) enables strategic decision-makers to design and implement sustainable solutions for reducing social and economic disadvantage in low- and middle-income countries. OPM has more than 35 years' experience in over 100 countries.
www.opml.co.uk

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