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The Transition Benefit

Social Marketing Company's Experience with Digital Financial Services

This report was prepared by Social Marketing Company (SMC), Bangladesh, with Technical Support from mSTAR/Bangladesh. It is based on a pilot to deploy mobile financial services across several of SMC's different programmatic areas. It was funded by USAID's mSTAR project (Associate Award AID-OAA-A-12-00073), implemented by FHI 360.

May 2016

BY

ATIK AHSAN, MD. ATAUR RAHMAN, KABIR AHMAD, MD. MOSHIUR RAHMAN

THE TRANSITION BENEFIT: **Social Marketing Company's Experience with Digital Financial Services**



First Edition Published in May 2016

By

Atik Ahsan
Md. Ataur Rahman
Kabir Ahmad
Md. Moshir Rahman

Cover and Design

Irin Vithanapath

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ACRONYMS

BSP	Blue Star Provider
DFS	Digital Financial Services, this includes all forms of digital payments, including mobile and other electronic channels (such as bank transfers). Throughout this report, DFS is generally used, although MFS is used when speaking specifically about mobile transactions.
MFS	Mobile Financial Services
mSTAR	Mobile Solutions Technical Assistance and Research
PCHP	Private Community Health Provider
SMC	Social Marketing Company
USAID	United States Agency for International Development

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EXECUTIVE SUMMARY

This report is based on an evaluation of the impact of SMC's pilot transition to digital financial services (DFS) under a grant provided by FHI 360 through the USAID mSTAR project. The evaluation used a pseudo-random sample of respondents across SMC's different beneficiary groups, and included an instrumental mix of qualitative and quantitative methods of inquiry.

During the ten-month pilot period, SMC and its staff made a total of **BDT 95,179,014 (approximately USD \$1.2 million)** in transactions using DFS, including both mobile and other electronic channels. Of that total, slightly more than three-quarters were for sales collections, while the remainder were for training payments.

Overall, the evaluation found that the transition to DFS resulted in increased efficiencies for administrative tasks by considerably lowering time spent when compared against the baseline data collected at the start of this pilot.

For the Blue Star Provider (BSP) program, the increased efficiency resulted in a **savings of 169 days** among all staff involved with payments during the five-month period during which DFS was used to make payments for 74 trainings. Moreover, **approximately 88% of the BSP and outlet owners are still intermittently using their mobile financial service (MFS) accounts,**

which is a promising sign for future efforts. For the Private Community Health Provider (PCHP) program, SMC realized **30 days of savings** from increased efficiency for 55 bulk payments made to pay for 308 trainings over a nine-month period. As a result of the time saved by its staff, the PCHP program was able to provide training to more than **1,000 non-graduate medical practitioners** during the pilot period.

For sales collections, the number of outlets visited by the five sales officers participating in the pilot **increased by 235 outlets per month in total** (around 47 visits per sales officer) over a three-month period, based on an analysis of the same period the previous year when they deposited sales at the bank. The five participating sales officers were generally pleased with the benefits of using MFS for collections, although some of that benefit appears to have been overlooked by head office staff.

Based on rough estimates, it was also determined that during the pilot testing, a total of around 330 kilograms of carbon emissions were reduced through the use of DFS instead of cash for payments.

Despite all of the above, it seems unlikely that SMC will continue the use of MFS for their sales collection, due to a number of organizational factors, which are explored in more detail within. The good news, however, is that SMC is open

to continuing to use digital financial services, and in particular mobile money, for payments associated with trainings. Hopefully, as SMC's staff continues to familiarize themselves with DFS by using mobile money for trainings, and as the DFS market in Bangladesh continues to mature, SMC's senior management will see the value of reducing their cash handling across the board.

INTRODUCTION

INTRODUCTION

1.1 Overview of SMC

Social Marketing Company (SMC) is a nonprofit private limited company established in 1974 as a project to address the rapid population growth in Bangladesh. It was set up by Population Services International (PSI), a US-based NGO under an agreement with the Government of Bangladesh and USAID. In 1990, SMC became a nonprofit company with a voluntary Board of Directors. In 2014, after having achieved full financial sustainability, SMC formed SMC Enterprise Ltd, a for-profit subsidiary to separate its profitable operations from nonprofit activities. All manufacturing and trading operations of self-financed profitable products are implemented through the Enterprise. The company markets a diverse range of brands under multiple product categories such as pills, condoms, oral rehydration salts, and feminine hygiene to specific segments supported with brand-specific advertising and promotion. It manages a nationwide distribution operation through 12 area offices located across the country.

1.2 Digital financial services pilot

SMC received a small grant under USAID's Mobile Solutions Technical Assistance and Research (mSTAR) program, which is implemented by FHI 360, to pilot the use of digital financial services, including both mobile and electronic payments. mSTAR is a broad, flexible, and responsive technical assistance and action learning program that fosters the rapid adoption and scale-up of digital payments, digital technologies and mobile data solutions in developing countries. In Bangladesh, mSTAR supports the acceleration and adoption of digital payments, including mobile money and electronic payments, within the USAID Mission's programs. mSTAR/Bangladesh focuses on awareness raising, technical assistance and dialogue facilitation to support the transition to digital payments by USAID implementing partners. mSTAR/Bangladesh provided financial support in the form of fixed-obligation grants to three USAID implementing partners, including SMC, to test and evaluate the use of digital financial services.

SMC received a grant from mSTAR/Bangladesh for BDT 2,309,858 (approximately USD \$30,000) for the period of October 2014 through February 2016 to test and document their learnings from using digital financial services. In this pilot, SMC used DFS to make and receive payments in the following three programmatic areas:

» **Blue Star Providers:**

A network of non-graduate providers operating nationally, the Blue Star Provider program is a social franchising network of community-level private medical practitioners who receive training on family planning, reproductive health and other public health priority areas so that they can provide quality services to the customers they serve. SMC tested mobile payments in 39 districts (out of 64) as part of this pilot.

» **Private Community Health Providers (PCHP) training program:**

The PCHP is a social network of community-based private health providers who receive training on family planning, reproductive health and other public health priority areas so that they can provide quality services to the customers they serve. The vision of PCHP is to create a network of skilled community level providers offering a wide variety of public health products/ services and referrals to improve health, family planning and nutrition related indicators within the community. As part of this pilot, SMC tested mobile payments in all 19 districts covered by PCHP.

» **Sales Collection:**

SMC has 113 sales people from whom they collect an average of BDT 100,000-125,000 daily. Under this pilot, SMC tested depositing money with DBBL Mobile Banking super-agents with five of its sales officers. In addition, outlet owners were also encouraged to make payments directly to SMC's DBBL Mobile Banking account through the bill pay function, although this was only tried once by seven outlet owners during the two-month period in which it was promoted.

Goal and Specific Objectives of the Grant

The goal of the grant provided to SMC was to test whether DFS is viable tool that can be used by SMC to help the organization and its stakeholders to save time and money, as well as to increase transparency, efficiency, productivity, safety and security.

Table 1: DFS Transaction Summary

PARTICULARS	PERIOD OF TRANSACTIONS	VALUE OF TRANSACTIONS (BDT)	VALUE OF TRANSACTIONS (USD ¹)	NO. OF TRANSACTIONS	NO. OF BENEFICIARIES
Blue Star					
1. Payment to program officers for training and service delivery costs	Oct 2015 to Feb 2016	3,562,650	45,436	14	14
2. Payments to BSPs for travel allowance	Oct 2015 to Feb 2016	631,200	8,050	1,578	1,578
3. Payments to area sales offices for BSP product purchases*	Oct 2015 to Feb 2016	2,556,800	32,608	N/A	1,598
Sub Total		6,750,650	86,094	1,592	1,612
PCHP					
1. Payments to PCHP trainees	June 2015 to Feb 2016	15,500,000	197,679	55	4
Sub Total		15,500,000	197,679	55	4
Sales					
1. Collections via Super Agents	May 2015 to Feb 2016	72,908,289	929,834	792	5
2. Collections using 'Bill Pay'	October to November 2015	20,075	256	7	7
Sub Total		72,928,364	930,090	799	12
Grand Total		95,179,014	1,213,863	2,446	1,628

* This is the only payment that was made via a bank-to-bank electronic transfer. All other payments were made via mobile financial services using DBBL Mobile Banking.

¹ 1 USD=78.41 BDT (as of April 10, 2016), this conversion rate has been used for all the USD figures in this report.

1.3 About the endline survey

The central objective of this endline survey was to identify the benefits and challenges with using DFS during the pilot period, weighing both direct and indirect costs. It also aimed to capture lessons learned during the pilot period and to determine future prospects for continuing the use of DFS within SMC.

Both primary and secondary stakeholders were included in this survey. Primary stakeholders included Blue Star providers, PCHPs and outlet owners. SMC's head office, area office and field level sales staff were considered secondary stakeholders. A total of 234 BSP and outlet owners and 30 SMC officials were selected as

a sample for the quantitative survey, and 18 SMC staff were included for participation in a qualitative survey. The evaluation location covered the area offices of Dhaka, Rangpur, Khulna, Barisal, Chittagong and Sylhet region of SMC's supply chain, which include 9 districts of Bangladesh.

The impact analysis fell into two broad domains:

i) administrative and procedural measures pertaining to SMC employees ranging from head office staff to sales officers, and ii) behavioral, perceptual and usage measures relating to the lowest and broadest layer of beneficiaries: BSPs, PCHPs and outlet owners.

BSP PROGRAM FINDINGS

BSP TRAINING PAYMENTS THROUGH DFS

All BSPs receive an on-boarding training with SMC, during which they receive a training allowance. Other than this payment, there are a number of other payments that BSPs also receive throughout the year, such as campaign costs, which include costs for loud speaker announcements on new products/services, and costs of producing and/or hanging signboards. Only payments made for training allowances were tested using DFS during this pilot.

2.1 Process flow of cash versus DFS payments

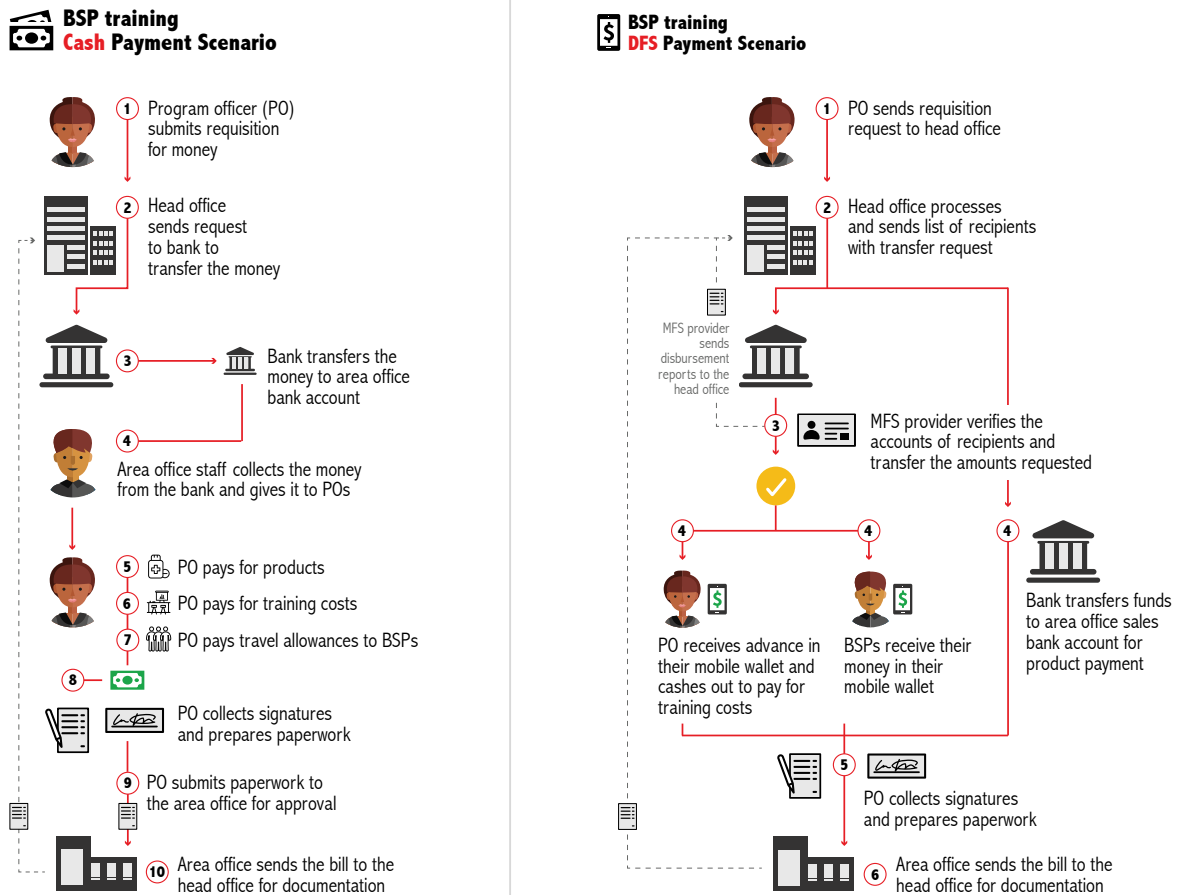
The process flow depicted below explains the cycle of tasks that were needed to be completed for a typical cash transaction and for the newly piloted MFS transaction between the head office and area offices for the BSP training programs. On the whole, the process was simplified and the number of steps were reduced, specifically, bank to bank transfers, queuing at the bank, and bill adjustments by area office staff.

With cash, the area office Program Officer (PO) had to submit requisitions for funds as per the budget outline to the head office. After checking the request, head office staff send instructions to the bank to transfer the money to the area office account. Area office staff

the collect the money from the bank and give it to PO as an advance against the training events. The program officer then pays the training allowances for BSPs, along with the cost of venue, food and other logistics. Finally, the program officer completes the necessary paperwork and submits proof of payment to the area office manager. The area office then sends the bill to the head office for bill adjustment and documentation, and also submits a requisition for the next training program.

After introducing DFS, the head office now starts processing the requisition request sent by the area office along with the list of participants and their DFS accounts for the training program. After receiving authorization from the signatory, the accounts department sends the list to the MFS provider to disburse money into the BSPs'

Figure 1: Comparison of cash vs. DFS payment training scenarios



MFS accounts for their allowance, and into the program officers' MFS accounts for venue, food and logistics costs. With this process, area office staff are not involved in any of the paperwork. At the same time, the bank transfers funds

to area office sales bank account for product payment as per the advice from the head office. At the area office level, the POs collect signatures, prepare paperwork and send the bill to the head office for documentation.

2.2 Reduction of physical cash handling by program officers in the field

Previously, when cash was being used for BSP training expenses, the total amount for training costs was given to the program officers in cash, which they then distributed in three ways: logistics and other vendor payments; BSP travel allowances and incentives; and the cost of SMC products. Once DFS was introduced, about

53% of the total amount was sent to the MFS account of program officers to cover logistics and other administrative costs, 9% was sent into the BSPs’ MFS accounts for their allowances, and about 38% was sent to the bank account of the area sales offices for product costs. As a result, program officers reduced their cash handling by about half, thereby reducing their risk and the burden of adjusting their advances.

Figure 2: Recipients of funds (as a percentage of total) under new process

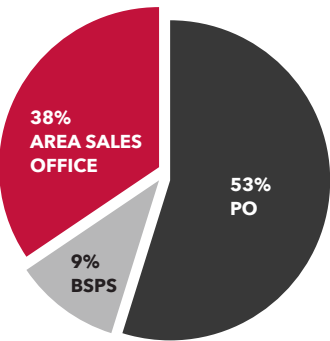


Table 2: Total transaction amounts for BSP training program

	PROGRAM OFFICERS	BLUE STAR PROVIDERS	AREA SALES OFFICE	TOTAL
Amount in BDT	3,562,650	631,200	2,556,800	6,750,650
Amount in USD	\$ 45,436	\$ 8,050	\$ 32,608	\$ 86,094
Amount in % of total	53%	9%	38%	100%

2.3 Time and cost required for BSP training payments

As a result of the transition from cash to DFS, the number of people involved at the area office was reduced from three to one, therefore, the amount of time spent on processing payments for each training session was reduced from 33 hours to 7 hours. In the head office, four people have direct engagement in both cash and DFS

transactions, and as a result of the workload surge from DFS, their hours increased from 11 hours to 19 hours. This was particularly due to additional requirements for verification and approval put in place by SMC. Nevertheless, SMC experienced a cumulative savings of 18 hours between the head office and area offices for each training.

Figure 3: BSP training: working hours saved from each session

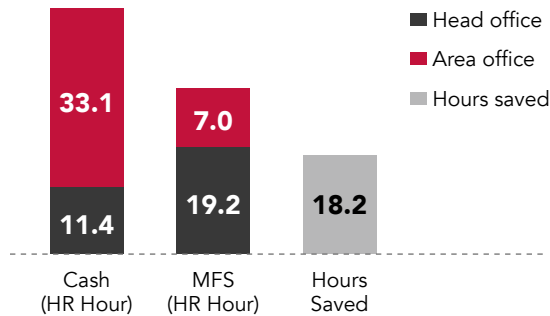
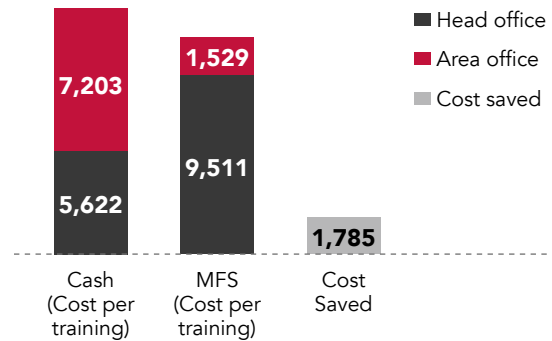


Figure 4: BSP training: cost saved from each session



Broken out by task, the DFS transition appears to have reduced working time required for calculating and issuing payment orders for head office staff, while elevating it for verification. Overall, it was found that switching to DFS led to an increase in the time spent by head office staff of 472 minutes per training. This is due to the fact that verification and approval were shifted to the head office under the DFS process, which accounted for an additional 400 minutes of time.

In contrast with head office staff, the DFS transition reduced the working time required for area office staff. In total, area office staff reduced the amount of time spent on processing payments by 1,566 minutes per training.

The breakdown of time spent per task can be found in the following two figures. Due to the fact that data was not captured on requisition, overall supervision and internal communication staff in the baseline survey, the same figure was used for the analysis of both cash and DFS processing.

Figure 5: Processing time for BSP training payments required by head office staff (in minutes)

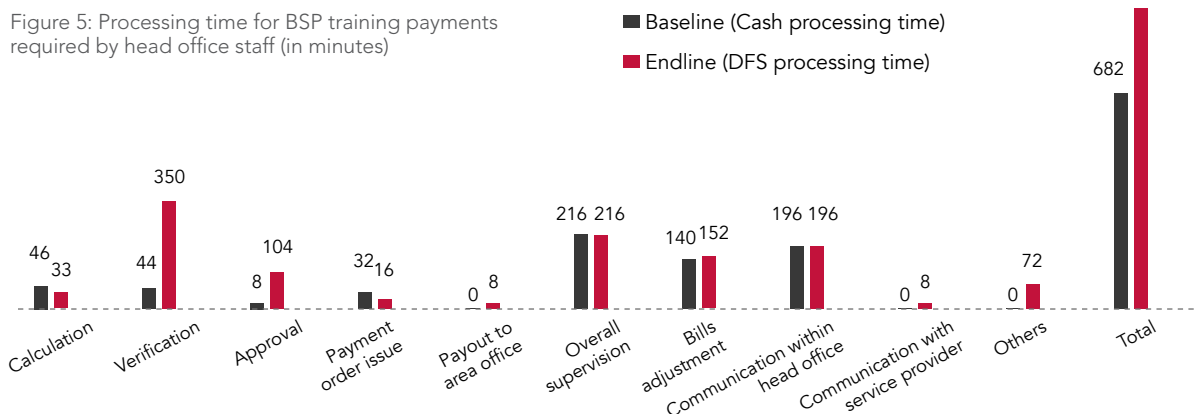
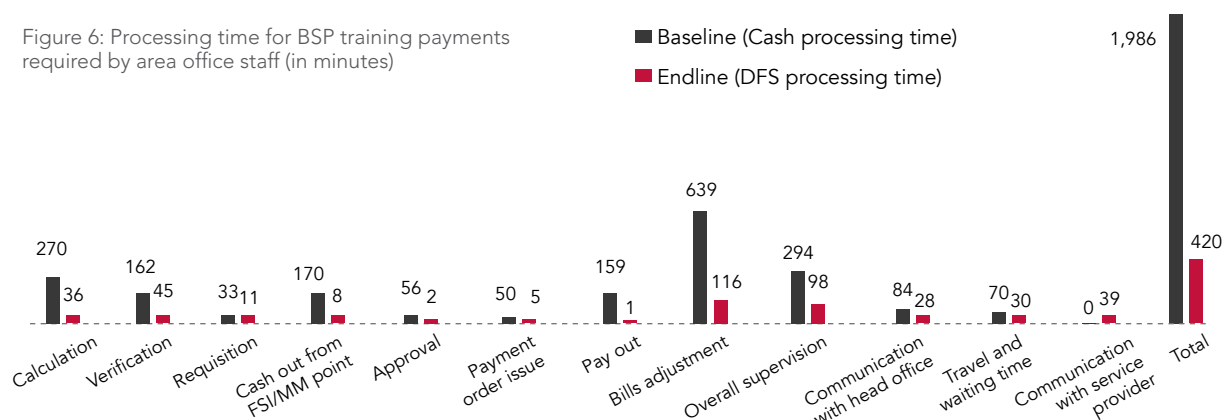


Figure 6: Processing time for BSP training payments required by area office staff (in minutes)



Additionally, when using cash, program officers needed to spend around 70 minutes in roundtrip travel time to the bank and queuing, in addition to paying around BDT 23 for each trip. With the switch to DFS, that time was reduced to only 30 minutes and BDT 11 for travel.

Considering all of these factors, SMC saved about BDT 1,785 for each training in terms of labor and travel costs. Despite the significant

overall time savings, the cost savings is lower due to the fact that head office personnel and overhead costs are higher than that of area office costs (approximately BDT 495/hour compared to BDT 217/hour).

During the course of the 74 trainings paid for through DFS during this pilot, SMC saved a total of 169 days of labor and BDT 132,109 (~ USD \$1,685).

Reactions from SMC staff

While the amount of time spent processing payments was reduced at the area offices, it increased significantly in the head office. When using cash, three people were engaged from each area office, which was reduced to just one with DFS. One program officer (BSP) from Dhaka West office shared:

"I've been looking after four districts all by myself unlike previously. Mobile financial services made it possible. My life is made a lot easier."

This is in contrast to the feelings from home office staff. One deputy manager (BSP- head office) put it as follows:

"I need to spend far too long on mBanking transactions. This makes it difficult for me to look after my core program by adding to my workload. Now I cannot go on field visits in person during training session. During training time, we need to remain at our desk to get the transactions done and follow up with the bank and BSPs. If someone provides any wrong account number the whole transaction halts and to fix it, we need to spend a lot of time again."

2.4 Lessons learned

As a result of using digital payments, monitoring of project activities became easier and more effective. Earlier, head office staff were receiving participants lists at the end of the month. In contrast, during the pilot, the head office received activity details over the phone and received participant lists with signatures via email on the same day of the training. This process made transactions faster and more transparent.

Paying area sales offices directly for products via electronic bank transfer also significantly reduced the amount of money that both program officers and sales officers had to be responsible for, which increased transparency and reduced risk.

However, in order to maximize these benefits, it is important for all program officers to have easy access to phones and computers so that they can submit payment requests on time. In addition, the approval and verification processing time at the head office was high during the pilot due to a number of factors. This can likely be significantly improved by altering and modifying the approval process in a way that would speed up the payment process without delay and without requiring deep involvement of high level officials.

2.5 Opportunities for DFS moving forward

During the pilot over 1,500 BSPs, which represented around a quarter of all BSPs, opened MFS accounts, and most of them are still active. Since most of the time associated with their uptake of MFS was for account opening and verification, there should be increased benefits in terms of time savings through continuous usage.

It is generally recommended that all BSPs and all types of payments to them should be done digitally. This would make the process more transparent, faster and manageable, particularly after the payment process is redesigned to be more efficient. In addition to training allowances, BSPs should also start to receive their campaign costs via MFS, instead of in cash.

Furthermore, SMC can also test using DFS to pay vendors directly, since currently more than half of training expenses are still being sent to the program officers, who then cash out from their MFS account and pay the vendors in cash. This is primarily due to the fact that there is limited usage of MFS by small merchants in rural communities. However, given the steady uptake of MFS within Bangladesh, this will likely change in the near future.

PCHP PROGRAM FINDINGS

PCHP TRAINING PAYMENTS THROUGH DFS

Unlike BSP trainings, team leaders train outlet owners (PCHPs) in a rented venue near their outlets or place of business. During the pilot, SMC tested the digitization of payments made to team leaders from the head office.

3.1 Time and cost required for PCHP training payments

Five head office staff and three PCHP team leaders located at the area office were surveyed to identify the processing time difference between cash and DFS transactions and to assess their level of engagement for the PCHP program at four area offices.

Overall, the transition from cash to DFS appeared to increase staff time required to process payments in the head office somewhat,

although it reduced the amount of time spent by area office staff by 4.6 hours per payment batch for trainings. As a whole, a total of 4.4 hours were saved from each payment batch. Considering the average HR costs from the head office and area offices, the total savings for each payment batch was BDT 927. The relatively low cost savings is due to the fact that salary and overhead costs for area office staff associated with the PCHP program are only around BDT 226/hour, while these costs for head office are more than double at BDT 497/hour.

Figure 7: PCHP training: working hours saved from each payment batch

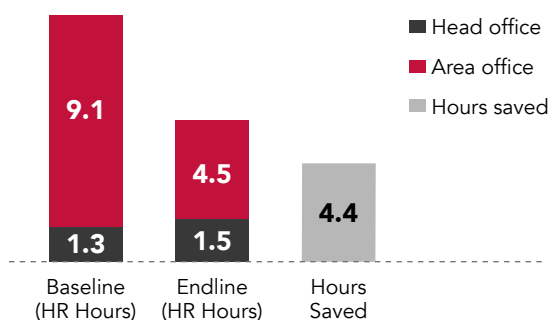
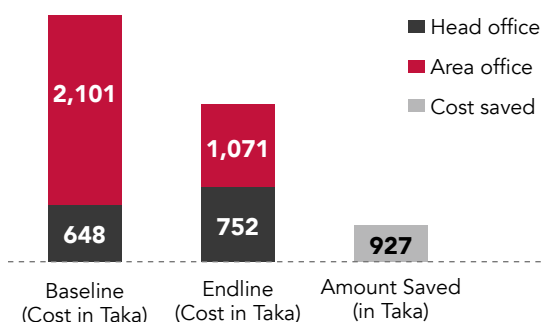


Figure 8: PCHP training: cost saved from each payment batch



Since starting the piloting of digital payments in June 2015, SMC conducted a total of 308 trainings, which were paid via DFS in 55 batches. In total, **30 working days and BDT 50,984 (~USD \$650)** were saved during the grant implementation from PCHP training program as a result of using DFS.

The breakdown of time spent per task can be found in the following two figures. Due to the fact that data was not captured on requisition, overall supervision and internal communication staff in the baseline survey, the same figure was used for the analysis of both cash and DFS processing.

Broken out by task, the transition to DFS appears to have reduced working time at

the head office for payment calculation and issuing payment orders, while elevating it for verification, approval and payment adjustments. Among home office staff, the total time for processing each payment batch was found to have increased by 46 minutes. In contrast with head office staff, the DFS transition significantly reduced the time for area office staff by 274 minutes for each payment batch for PCHP trainings.

As a result of the time saved, the four area offices were able to each conduct one more training per month to around 30 non-graduate medical practitioners (NGMPs), which resulted in more than 1,000 additional NGMPs being trained during the pilot period.

Figure 9: Processing time for PCHP training payments required by head office staff (in minutes)

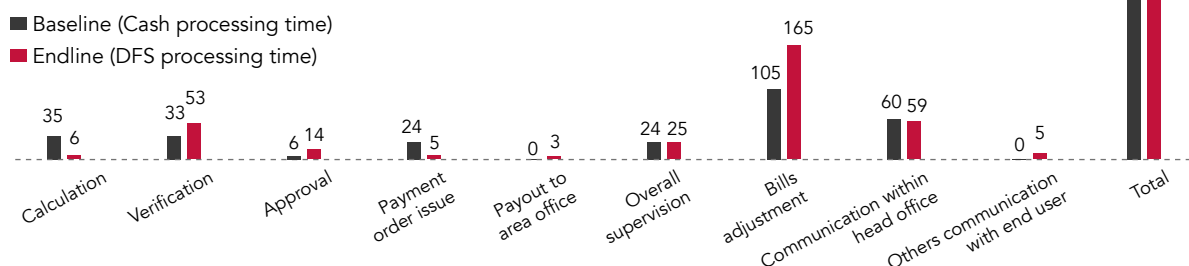
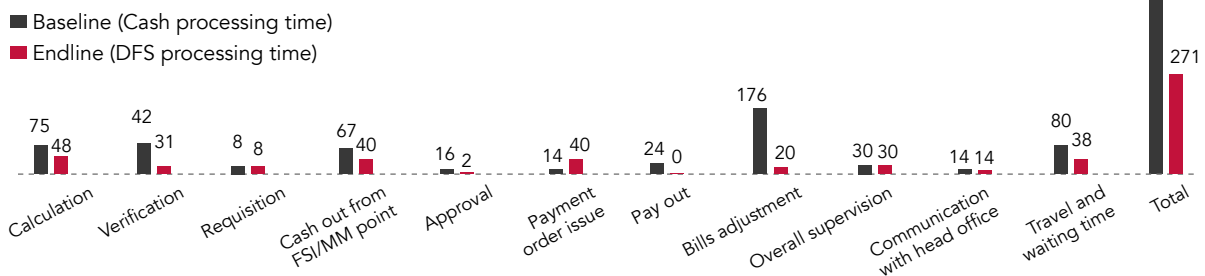


Figure 10: Processing time for PCHP training payments required by area office staff (in minutes)



Reactions from SMC staff

Due to the apparent benefits from the switch to DFS, a PCHP Coordinator based in Dhaka pointed out that:

"The mobile money transfers reduced my tension with transferring cash and makes my program smooth."

Although not all staff agreed with this sentiment. For instance, one team leader (PCHP) from Dhaka West area office stated:

"We have to deal with a large amount of money to pay venue and food costs for trainings. It is not very convenient for us to use DFS because we cannot cash out more than BDT 40,000 each day [from an agent]. Therefore, we have to cash out from a DBBL bank branch, which are often located in the district headquarters. That does not reduce the time sometimes; rather, it takes more time to cash out using mobile financial services."*

* The actual cash out limit is BDT 25,000. This team leader misunderstood the limits.

3.2 Lessons learned

Due to the cash out withdrawal limits from MFS agents, challenges arose due to the large payment amounts for each training. DBBL Mobile Banking made a special arrangement to allow for larger cash outs to be permitted from bank branches, but for some team leaders this required more time than previously needed because of the locations of those bank branches. On a whole, however, the time savings outweighed the additional time requirements of some team leaders. It was also observed that due to poor mobile network coverage in some areas, there were sometimes challenges with receiving transaction confirmations.

3.3 Opportunities for DFS moving forward

Given the large amount of money needed to pay for PCHP training costs and the cash out limits from MFS agents, using bank-to-bank transfers to the team leaders might be a better option. Additionally, SMC should continue to explore the viability of paying for venue costs directly via mobile or other electronic payments, rather than having that payment go through the team leader. It is also recommended to test digital payments to PCHP project beneficiaries on a small scale.

Furthermore, since the PCHP program works to enhance the capacity of private community healthcare providers, it may be worth considering including components on financial literacy and digital payments in the current training curriculum to enhance their ability to be able to use and benefit from DFS.

SALES COLLECTIONS FINDINGS

COLLECTING SALES USING DFS

SMC collects sales from more than 100 sales persons all over Bangladesh, with the average sales officer depositing around BDT 75,000 – 125,000 per day. Previously, sales officers would have to keep their daily sales revenues with them overnight, before depositing them at the bank the following morning. This was not only inconvenient, it was also a risk, as the sales officers had to carry large amounts of cash with them each night.

During the pilot phase, five sales officers made 792 transactions amounting to BDT 72,908,289 (USD \$929,834) using MFS.

SMC tested two methods of using DFS for collecting sales. The first involved sales officers depositing cash directly with MFS super agents, which would be cashed into the SMC corporate MFS account. Five sales officers, located in Comilla, Brahmanbaria and Habiganj, were selected for this pilot. Super agents are agents that oversee multiple agents, and therefore handle much larger volumes of cash. Given the volume of cash that sales officers need to deposit, using a typical agent would not have been possible, as they would not have had sufficient balance (also known as float) in their MFS accounts to complete the transaction. The other method involved encouraging outlet owners to pay SMC directly from their own MFS accounts via the bill pay option.

The findings from both of those methods are detailed below.

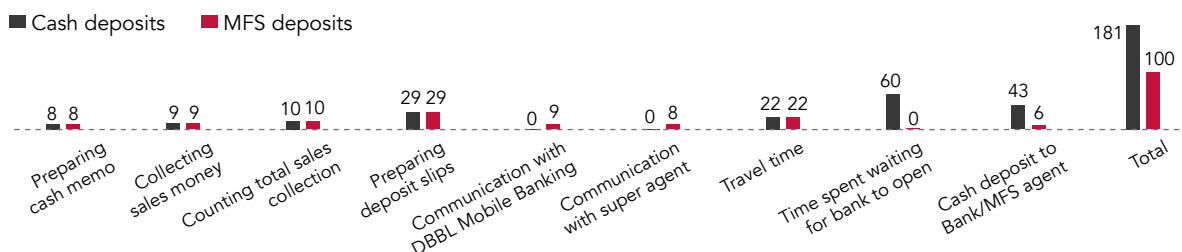
4.1 Sales collections through deposits with MFS super agents

The chart below depicts the amount of time required by sales officers to process payments both via the bank and with MFS super agents. For both methods, many of the administrative

tasks, such as preparing cash memos, collecting sales, counting total sales collected and preparing deposit slips, were the same.² The main difference was the amount of time required to make a deposit, which was approximately 37 minutes faster at the MFS super agent than at the bank. In total, sales officers ended up saving approximately 21 minutes per day in terms of task time with the switch to depositing at MFS super agents.

2 Out of three observations in endline data, one extreme outlier was dropped from the calculation owing to a difference of over 400% between it and the other two. Two other sales officers who participated in the pilot could not be reached for the endline.

Figure 11: Deposit processing times for sales officers for cash and MFS



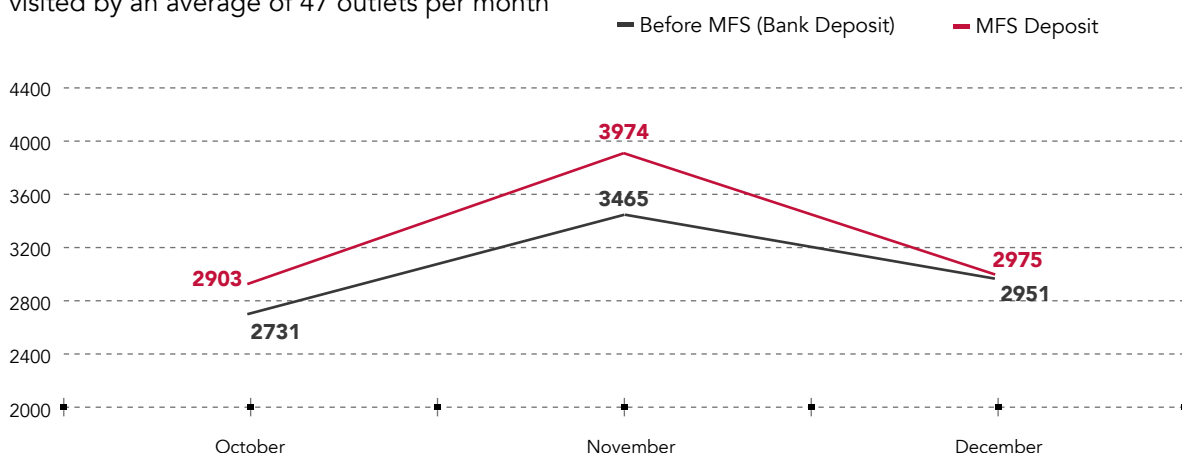
Added to that is another 60 minutes of productive time, as the sales officers do not need to wait until 10am for the bank to open in order to make a deposit. Instead, when using MFS they can make deposits at the super-agent in the evening on the day of the sales or before 9am the next day. Thus, the sales officer can start their outlet visits as soon as they start working at 9am. This allows them to increase their productivity during working hours, which leads to additional outlet visits each day.

(235 outlets in total for all five sales officers), or approximately an additional two outlet visits each working day. The graph below shows the differences for three months during which the pilot was fully operational. Note that the total number of outlet visits vary from month to month as a result of a number of factors, including weather and political factors. Unfortunately, it was not possible to analyze whether the increase in the number of visits had any impact on the amount of sales made by these sales officers.

4.1.1 Number of outlet visits by sales officers

Looking at year-on-year data, the five sales officers that participated in this pilot were able to increase the number of outlets they visited by an average of 47 outlets per month

Figure 12: Number of outlet visits by selected sales officers during pilot period



Reactions from SMC staff

Almost all of the individuals interviewed mentioned that use of DFS reduced the overall processing time of cash and reduced their risk of handling cash. One sales person from Comilla shared that:

"Following MFS helps sales officers save time. One sales officer does not need to go to bank now to deposit money; he can do it in a faster way now. It reduced the pressure and reduced the risk of dealing with fake money."

Another sales person from Brahmanbaria further shared:

"Yes, mBanking does save our time previously spent for depositing sales revenues at the bank. As a result, I can now use the time better for educating clients more and building a stronger rapport."

Overall, it seems that the sales officers were happy with the new process. They noted that they have more time to concentrate on their other activities rather than spending too much time dealing with cash. Although interestingly, one area office staff shared that the sales agents should not be concerned about traveling with cash since SMC provides them with a car, which he felt was secure. He therefore felt that depositing money with the super agents did not make any difference. This illustrates that there may be a disconnect in what office staff's perceptions about safety are and what the sales officers perceive.

However, the transition was not without its challenges. As one sales officer noted:

"There is one challenge that we face while using this service. Sometimes we do not get confirmation notification right after a transaction. Because of network problems with the mobile banking system, the [confirmation notification] gets delayed. We do not receive any paper documentation. If the audit team asks for any documentation of transactions with MFS, I will not be able to show anything."

Additionally, another sales officer shared that MFS agents are not always able to service their needs immediately:

"Definitely mobile money service has several positive outcomes. However, there is a problem that the representatives from the designated bank are supposed to receive money from us whenever we need or we call them to, but sometimes they do not come to take the cash on time. Therefore, we had to keep the cash with us overnight. That means we still have to live with the risk of cash handling and agents come to take the cash in the morning."

4.2 Sales collection through bill pay

This pilot was originally planned to be tested with 200 outlet agents, although unfortunately only seven outlet owners ended up participating, and each one only made one payment via their MFS account to SMC through bill pay.

One of the reasons for this is because many of the outlet owners did not have MFS accounts, and if they did, they almost certainly kept much less money in their account than what they need for their average purchase. As they do not currently use mobile money for many other purposes, they are more likely to keep cash on hand since that is the payment mechanism most often used by them and their clients.

Reactions from SMC staff

One officer from the head office explained the reason why outlet owners are not likely to want to pay via an MFS account:

"If a small businessperson buys BDT 100,000 worth of product from us, he has to have that amount of money in his MFS account to pay the bill. Most of the clients do not prefer to keep money idle in their mobile banking account and the sales officer will not wait for them too long to get the money. Therefore, cash is more convenient for them to pay bills, rather than using a mobile banking account."

This sentiment was reinforced by a sales officer who shared:

"Many outlet owners consider the process of mBanking complex. Often they do not have enough money for spot purchase of products, so they request us to hang around for 20-30 minutes more until they have enough money to pay. However, for mBanking they need to keep the amount in their mobile wallet beforehand, which is difficult for them."

Some of the sales officers also noticed a general lack of comfort and openness to MFS for any purpose, as one noted:

"Clients sometimes do not want to open an MFS account. In addition, many BSP or outlet owners also do not feel comfortable using MFS for money transactions. They did not respond positively about using MFS."

4.3 Lessons learned

All of the sales officers in the pilot felt that depositing cash with the MFS super agent reduced their cash handling and processing times. Some sales officers further mentioned that this method reduced their risk of cash handling and the mental pressure associated with it. According to them, in the past they had to live with enormous pressure while dealing with cash. As this method has reduced the amount of time they need to handle cash directly, it has alleviated this burden.

It was also obvious that despite some of the challenges, making deposits with the super agents at the end of the day or early the next

morning saved travel time and queuing at the bank. During the baseline survey at the start of the pilot, some sales officers also noted that due to banking hours and the queuing required, it would often cause them to have a late start to the day. In some cases, if they need to travel to distant outlets, they would often lose more time as they would not arrive until the lunch break and prayer time of the outlet owners, and therefore would have to wait for those to finish before meeting with them.

After the introduction of depositing sales with super agents, some of the sales officers took advantage of the opportunity to start out early so that they could arrive at those

outlets before they started lunch. As a result, sometimes they could cover as many as five to seven more outlets in a day. The sales officers also mentioned that they were able to take advantage of the time saved by spending more time explaining products to the outlet owners properly.

4.4 Opportunities for DFS moving forward

In order to maximize the efficiency of sales officers, it would be helpful to map out the locations of all super agents and outlet owners so that sales officers can better plan their travel schedule. Making this information available to sales officers on their phones, combined with a system of reminders would be beneficial for sales officers.

The biggest barrier to taking advantage of the benefits realized by the five sales officers that participated in the pilot, however, was organizational resistance. One issue was that some head office staff did not feel that there is any issue with carrying cash. They noted that they have not had a significant number of robberies of sales officers, and that even if they did, they have insurance to cover any loss.

Most of the senior officials at SMC that were interviewed during this evaluation stated that they do not feel that the MFS adds financial value to their sales team, particularly given the need to pay service charges to the MFS provider for processing those payments. They felt that MFS was better suited for small

transactions, while traditional banking channels were better suited for larger transactions. One senior official stated that if USAID continues to fund their use of MFS, that they would have no objection to scaling it up to their entire sales team.

Presumably, there is a good chance that the amount of time saved by sales officers to cover more outlets and better explain products to outlet owners would have led to increased sales, which may have more than offset the cost of using MFS. Unfortunately, given that only five sales officers out of more than 100 were selected for this pilot, it is possible that there will be insufficient data from the current pilot to explore this further. That said, further analysis to understand what financial benefits resulted from this pilot in terms of sales over the short and medium term is worthwhile.

As agent banking in Bangladesh expands, that may be a more appealing option to SMC's management. Agent banking refers to limited scale banking and financial services that primarily target underserved populations through engaged agents, rather than at physical bank branch. Although at present only a few banks are actively rolling out their agent banking networks, if there is overlap in the areas where SMC's sales officers operate and those agent banking networks, it could present an opportunity to pilot test whether that would be more appealing than making deposits at either MFS super agents or at bank branches.

As far as outlet owners are concerned, encouraging them to use MFS accounts for bill pay is likely going to continue to be challenging. Many of the outlet owners are not well informed about MFS in general, bill pay in particular. Getting them to be comfortable with using this feature is likely going to require a significant amount of socialization and training, as well as industry level changes that bring about increased use cases for MFS accounts.

It may also help for SMC to better understand the demographics of its outlet owners and their potential openness to paying via mobile money. While some of this was done as part of this evaluation (see Chapter 5), further analysis is necessary. This should include a thorough analysis of demographic features such as age, income and education, as well as business features such as the share of SMC products in their monthly average sales, and the frequency and amount of transactions with SMC.

READINESS OF BSP AND OUTLET OWNERS FOR DFS

BSP AND OUTLET OWNERS

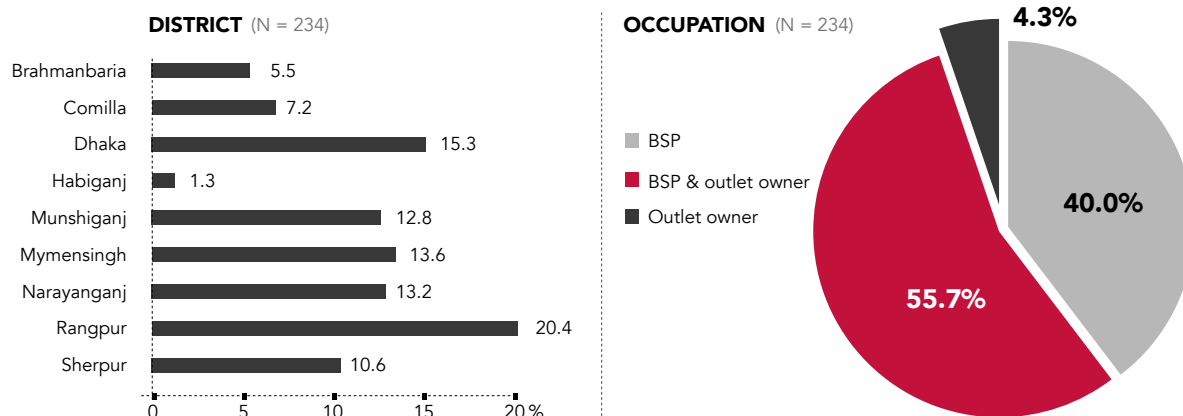
5.1 Introduction

As part of this evaluation, the readiness and willingness of Blue Star Providers and outlet owners for future uptake of DFS was also assessed. As previously noted, the collection of sales payments using bill pay via MFS was not properly adopted by outlet owners. Major reasons for this include willingness, difficulty in understanding the fee structure of transactions, lack of multiple use cases for MFS accounts, unavailability of cash, and unwillingness to cash-in. This portion of the evaluation sought to better understand their mobile phone affinity, MFS knowledge, MFS usages patterns and the resulting affinity, and cash risk perceptions of outlet owners and BSPs based on a sample of outlets from across the country.

A total of 234 Blue Star Providers and outlet owners were sampled from across the country complying with the list provided by SMC. Individuals were interviewed from Brahmanbaria, Comilla, Dhaka, Habiganj, Munshiganj, Mymensingh, Narayanganj, Rangpur and Sherpur. Of the total, 56% were both BSPs and outlet owners, 40% were only BSPs, and 4% were only outlet owners.

This chapter includes a summary of the main findings of this portion of the assessment. For more detailed analysis and disaggregation, refer to Annex III.

Figure 13: Sample distribution of the BSPs and outlet owners by district and occupation



5.2 Mobile phone affinity

All respondents were asked about their general mobile phone usage to better understand their affinity for mobile technology. Respondents were asked how frequently they use their mobile phone for sending/receiving SMS, transferring money, browsing the internet,

taking photos and sending/receiving emails. Among these features, email and internet had never been used by a majority of respondents. This is partly because many of the respondents are not able to access the internet on their phones. Interestingly, more than 80% have used MFS on their phone, with more than a quarter of respondents using it at least monthly.

Table 3: Mobile phone affinity by type of usage among the BSPs and outlet owners (n=234)

MOBILE PHONE USE TYPE	PERCENT OF BSPs AND OUTLET OWNERS					
	DAILY	WEEKLY	MONTHLY	OCCASIONALLY	NEVER	NOT SUPPORTED ON PHONE
SMS	5.1	0.9	3.4	43.6	47.0	
Money transfer	6.8	7.7	13.2	53.0	19.2	
Internet	13.2	3.4	0.4	6.9	36.8	39.3
Photos	1.7	4.7	0.8	43.1	10.3	39.3
Email	0.9	0.9	0.0	7.3	13.7	77.4

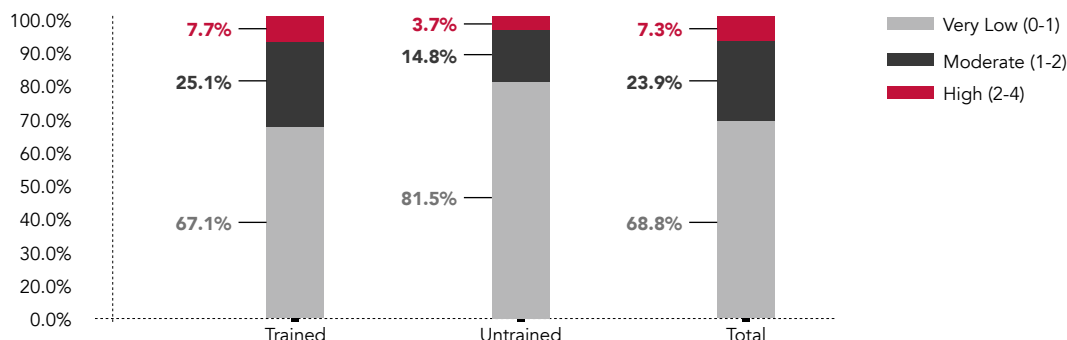
5.2.1 Mobile Phone's ICT Affinity Score

Beyond just evaluating the exposure to and rate of interaction with different mobile phone features, affinity scoring was used to arrive at a better understanding of the tendency to access and use these features on a more general scale.³ The naming of this metric is not to be confused with the widely used affinity analysis utilized by market researchers to evaluate customers' purchasing behavior. Instead, a simple arithmetic average of the frequency of usage along the five dimensions mentioned above was used.

The distribution of the resulting mobile phone affinity scores show that the majority of respondents were found to have a low affinity for ICT, while slightly less than a third were found to have at least a moderate affinity. Those individuals who received training from SMC on how to use their mobile phones had a much higher affinity than those who did not receive training. Of those who were trained, 32.8% had a moderate to high affinity, while only 18.5% of those who did not receiving training had similar affinities. This highlights the value that providing training can play when introducing new uses of technologies to populations.

³ Frequency Scores: Never = 0. Occasionally = 1. Monthly = 2. Weekly = 3. Daily = 4 ICT Affinity Scores: (Frequency score [D1] + + Frequency Score [D5]) ÷ 5 Range: 0-4

Figure 14: ICT affinity score distribution, disaggregated by training status

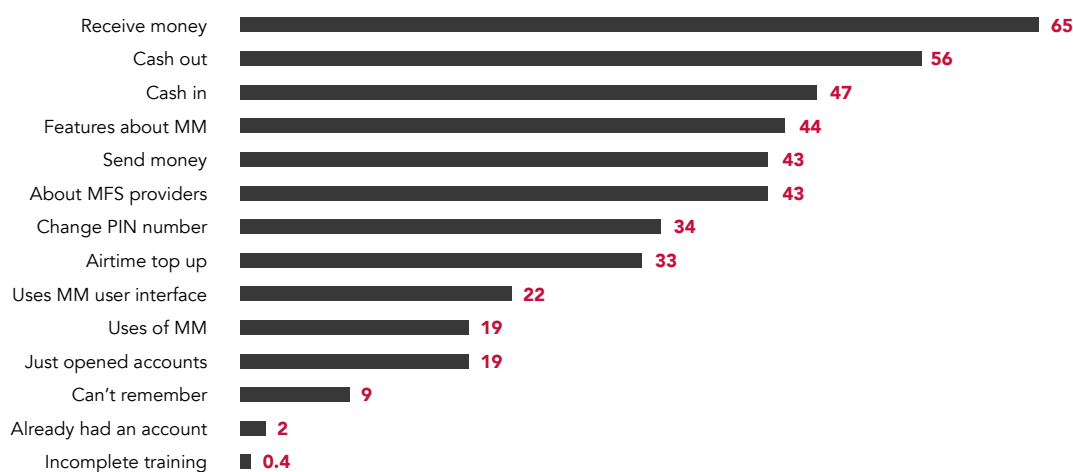


5.3 Knowledge about MFS

SMC encouraged BSPs and some of their outlet owners to open MFS account in order to receive payments. As part of that process, among the BSP and outlet owners surveyed, 207 of them (or 88%) were still using MFS at the time of the evaluation. This evaluation intended to look into the current level of knowledge of MFS from those respondents as a result of the SMC's intervention. As illustrated in the figure below, there were significant gaps in terms of

what participants learned, with majorities noting that they did not learn how to cash in to their account or send money. This demonstrates the likely need for more comprehensive training for BSPs in the future, which is potentially beyond what the MFS agents are capable of providing. In addition, it could be reflective of a lack of willingness by some to learn about MFS, which means that SMC may need to change its approach to communicating the benefits of MFS to BSPs in order to increase motivation.

Figure 15: Percent of trainees mentioning MFS training takeaways



5.4 Feeling and expectations regarding MFS and MFS providers

Feeling about MFS

A majority of BSPs and outlet owners felt that MFS is easy, and saves time and money. However, a significant number also felt that more cash out points are needed. It is possible that this is partly due to lack of awareness of already existing cash out points due to limited prior usage of MFS. Anecdotally, at least, there

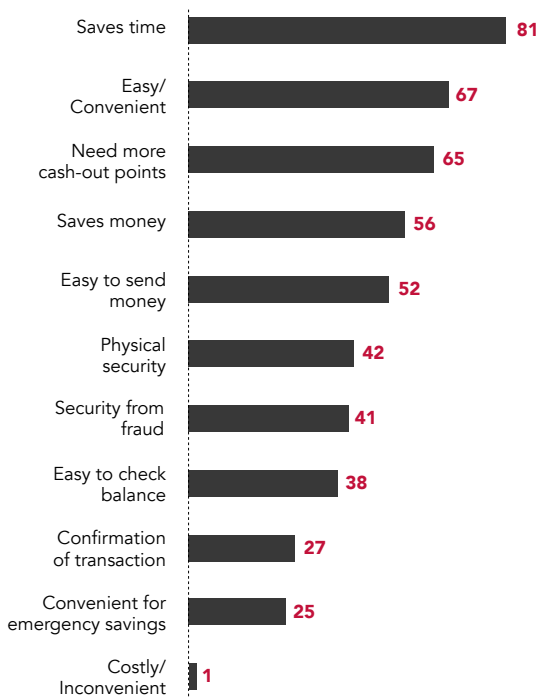
tends to be at least one MFS agent point in the communities where most of the BSPs and outlet owners are located.

Expectation from MFS providers

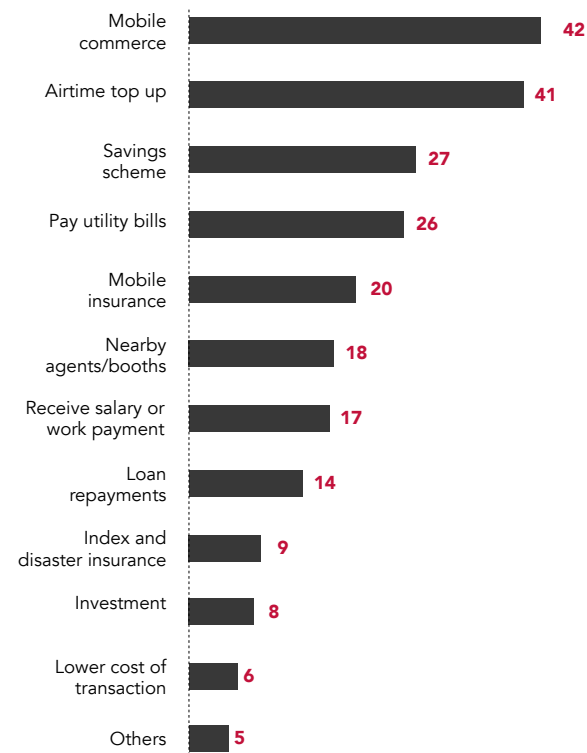
Just over 40 percent of respondents were interested in being able to use their MFS accounts for mobile commerce and for airtime top up, while just over a quarter were interested in using their accounts for savings and to pay utility bills.

Figure 16: Percent of BSPs and outlet owners expressing their feelings about MFS and expectations from providers (n=234)

Feelings about MFS



Expectations from MFS Providers



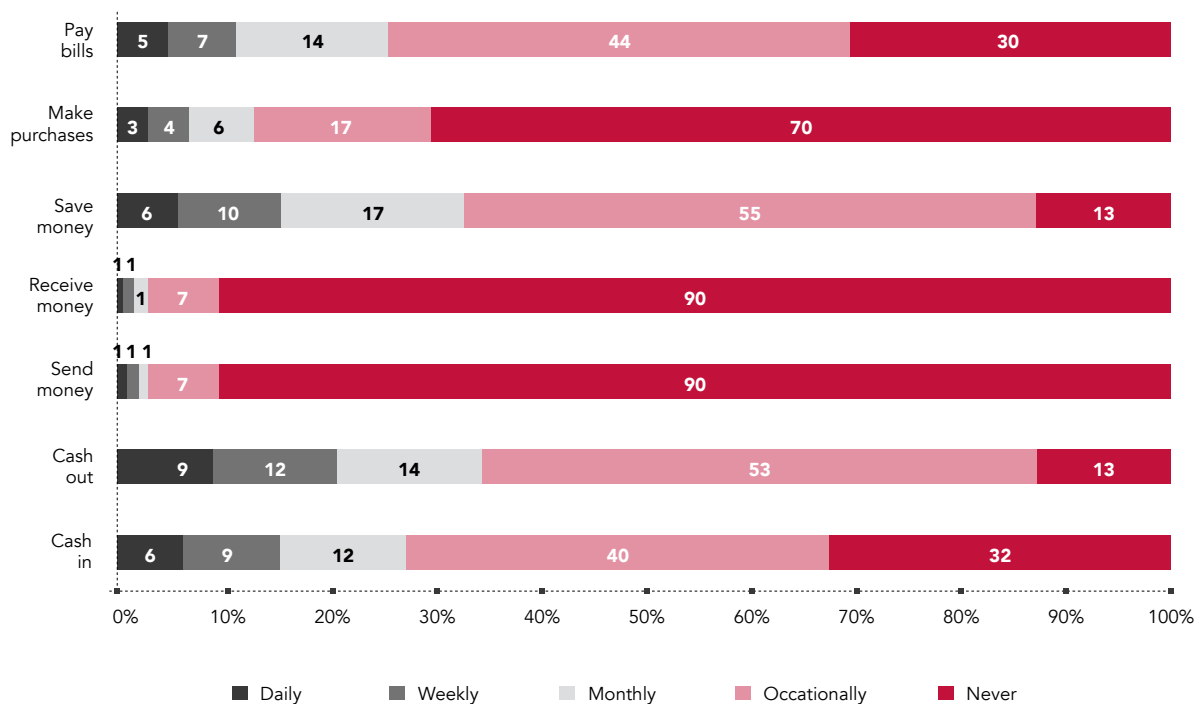
5.5 MFS usage patterns

Respondents were asked whether they had ever used MFS and 96.2% respondents indicated that they had used MFS at some point in the near past, although as previously noted, 88% were still using their MFS accounts during the period that this survey was conducted.

The respondents who were still using MFS were asked how frequently they perform each of the following tasks: sending money, receiving money, cashing in, cashing out, paying bills, making purchases, and saving money with MFS.

Their response to each item was tracked on a frequency scale ranging from daily to never. The most commonly used features were cashing out (87%), saving money (87%), paying bills (70%), and cashing in (68%). However, most of these were only used occasionally, while a few were daily, weekly or monthly. Sending money, receiving money and making purchases were some of the least availed features. Only 10% of respondents said they had ever sent or received money, while only 30% had ever used their MFS account to make a purchase.

Figure 17: Percentage distribution of MFS usages patterns of BSPs and outlet owners (n=207)

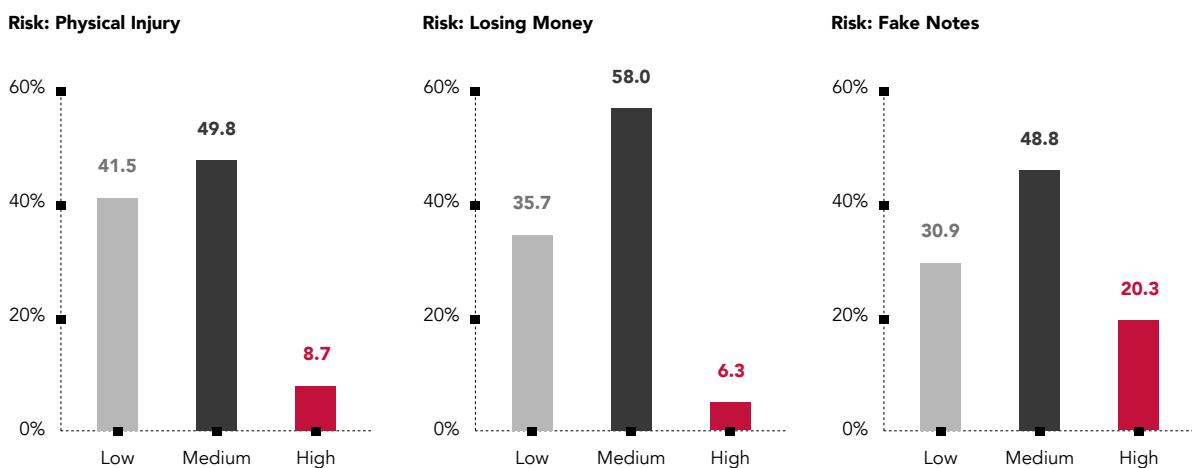


5.6 Perceived cash risks

Respondents who received MFS training from SMC were also asked about their perception of the risk of cash, particularly the risk of physical injury, losing cash and finding fake notes. The responses were coded on a Likert scale ranging

from 1-5. Just under 70% of respondents thought the risk of receiving fake notes was at least a medium risk, while just under 65% felt losing money was at least a medium risk, and slightly under 60% felt there was at least a medium risk of physical injury.

Figure 18: Perception about cash risk by BSPs and outlet agents



5.7 Key Takeaways

BSP and outlet owners displayed varied levels of experience using mobile phones. While MFS usage is still only occasional at best among most of those surveyed, majorities recognize the potential benefits of MFS to save time (80%) and money (56%). Significant majorities are also aware of the potential risks associated with cash.

However, given the fact that most of their business is still conducted in cash and that the majority of respondents did not seem to be using their MFS accounts for much more than just basic transactions (cash in/cash out), it is likely that they will need additional motivation and support to use MFS within their business.

SMC will likely need to provide additional support to BSPs and outlet owners in terms of their awareness and capacity to use MFS. In addition, SMC may explore incentivizing their use of MFS by offering discounts for products purchased using MFS. Since doing so would further reduce the time needed by SMC sales officers to handle cash, it is possible that it would lead to a further increase in outlet visits and potentially greater sales. In addition, SMC may consider asking outlet owners to pass along a discount to customers who pay via MFS

to encourage usage. If outlet owners receive more payments via their MFS account, they would not have to worry as much about having to continually add balance to their account via an agent.

SMC may also consider working with other health commodities and pharmaceutical companies to encourage them to accept MFS payments as well, therefore increasing the use cases for outlet owners.

ENVIRONMENTAL BENEFIT FROM DFS

REDUCED CARBON FOOTPRINT

During the endline evaluation, this study sought to estimate the total carbon emissions saved through the use of DFS by SMC during their pilot testing of DFS in their programming as a result of reduced travel. We used vehicle CO₂ emissions data for Dhaka from 2009 found in the paper Transport Sustainability of Dhaka: A Measure of Ecological Footprint and Means for Sustainable Transportation System, coupled with data collected by SMC on travel times for transactions, and some of our assumptions about the method of travel where SMC's data was incomplete. Based on these figures, we were able to roughly estimate that during the pilot testing, a total of around 330 kilograms of carbon emissions were reduced through the use of DFS instead of cash for payments associated with 308 PCHP trainings, 74 BSP trainings, and sales collections from four sales officers during the pilot period. The following table shows the details of the estimations by each program.

Table 4: Carbon emission volumes and savings (by program)

DESCRIPTION OF ITEM	PROGRAM TYPE		
	PCHP	BSP	SALES
Elapsed time for travel to bank or MFS agent as reported by staff for each transaction	Bank: 80 min MFS: 38 min	Bank: 70 min MFS: 30 min	Bank: 22 min MFS: 22 min
Distance of MFS agents or bank assumed based on core travel time/distance ⁴ of the staff for each transactions by vehicle	Bank: 13.3 km MFS: 6.3 km	Bank: 1.7 km MFS: 0.45 km	Bank: 1.5km MFS: 0.77km
No. of total transactions	55	74	720
Total required travel for cash (in kilometers)	693	126	1,080
Total required travel for MFS (in kilometers)	329	33	540

⁴ The core travel time elapsed and distances travelled for different programs by the staff were estimated based on certain assumptions. For PCHP Trainings, the core travel time assumed to be one third of the total reported travel time and the average speed of the vehicle was assumed as 30 km/hour. For BSP, it was assumed that for MFS, half of the reported distance (0.9 km) was travelled by mechanized vehicles while the other half was travelled by walking or non-mechanized vehicles. For sales, it was assumed that 70% of the reported distance (1.1 km) was travelled by mechanized vehicle and that four of the Sales Officers were engaged an of average 20 days a month over a 9 month period. However, for both BSP and sales, travel to the bank was assumed to be done by vehicle, as those trips were comparatively longer in distance and full vehicle support was provided by SMC.

DESCRIPTION OF ITEM	PROGRAM TYPE		
	PCHP	BSP	SALES
Vehicle type used for travel	Jeep/Noah Micro	Jeep/Noah Micro	Jeep/Noah Micro
Fuel type used in the vehicle	Petrol	Petrol	Petrol
CO2 Emission factor(gm/km)	331	331	331
Total CO2 emissions for cash (in kilograms)	242.7	41.6	357.5
Total CO2 emissions for MFS (in kilograms)	115.3	11.0	185.9
CO2 Emission Savings (in kilograms)	127.4	30.6	171.6
Grand Total CO2 Emissions Saved	330 KG		

CONCLUSION

CONCLUSION

This evaluation revealed both the benefits and the challenges of implementing DFS within SMC at the field and head office level.

The benefits of using DFS for training payments under both the BSP and PCHP programs were apparent both in terms of time and cost savings. While field staff benefited more than head office staff, as both became more familiar with the new method of payment staff seemed more inclined to continue its use. In this regard, the use of DFS in place of cash could be said to have been a success during the pilot.

However, there are still several concerns that need to be addressed to make the transition more viable if it is to be scaled up across these two programs. The approval process practiced in the pilot for implementing the DFS payment flow involved a significant time commitment from senior-level management, which reduced the cost benefit. Improvements to the standard operating procedures for digital payments would reduce the frequent engagement of senior-level staff, improve efficiency and increase the likelihood of successful uptake of DFS within SMC. There is also a significant opportunity to take advantage of the usage of MFS by BSPs to expand the types of payments made to them through that channel.

For sales collections, the results were more mixed. It was clear that sales officers found depositing money with super agents to be helpful, saving them time and creating opportunities to cover more outlets and provide better service. But challenges remain in convincing SMC's senior management that these benefits are worth the cost of using this collection channel.

Utilizing the bill pay option is likely not feasible in the short term due to the challenges noted above. Looking ahead however, there are some promising signs. Individuals who received training from SMC on DFS showed higher ICT affinity score than those who did not.

Additionally, more educated and younger BSP and outlet owners were more inclined to use DFS (see Annex III), and if there is a push from SMC, then they might be more open to trying it in new ways.

As banks and mobile financial service providers in Bangladesh look to expand their client base and service offerings, there may also be an opportunity for SMC to partner with others in the healthcare and commodities space to increase acceptance and usage of digital

payments, including at both healthcare facilities and pharmacies. This would go a long way to helping create a cashless healthcare ecosystem, although it will require the cooperation of several actors.

While this reality may still be a few years off, by continuing to test and expand the use of digital financial services, SMC and its partners have an opportunity to be at the forefront of that cashless future once it arrives.

ANNEX

SMC AND MSTAR PROJECT

1 About SMC

Social Marketing Company (SMC) is the largest privately managed social marketing organization in the world for a single country. SMC's mission is to improve the quality of lives of vulnerable and less privileged populations, primarily in public health, through sustainable social marketing efforts in collaboration with national and international governments and donors. The concept of social marketing came to Bangladesh in 1974 when the social marketing project was initiated to challenge rapid population growth through a Behavior Change Communication (BCC)/Information Education and Communication (IEC) program and by making contraceptive products widely accessible at a price affordable to the general public.

SMC has been significantly contributing to the overall success of national reproductive and child health programs. In FY-2013, SMC provided 4.02 million Couple Year Protection (CYP) by offering three modern methods of contraception- oral pills, condoms and injectable. As Bangladesh Health and Demographic Survey (BDHS) 2014 shows, around 62% of all condom users, 44% of pill users and above 18% of all injectable users rely on SMC supplied contraceptives for protection. SMC is significantly contributing to effective diarrheal management programs as well. According to BDHS 2014, 50% of oral rehydration salt (ORS) users use SMC branded ORSaline-N.

SMC's current product lines includes five condom brands (Raja, Hero, Panther, Sensation & U&ME), four oral contraceptive pills (Noret-28, Femicon, Femipil and Minicon), two Injectable contraceptive – SOMA-JECT and Sayanapress, packaged ORS (ORSaline) and micronutrient products for under five children- MoniMix® and SMC Zinc and a maternal and child health related product Safety-Kit . SMC also launched a Intrauterine Device (IUD) & Implant program with brand name i.e. Relax and I-plant during the last quarter of FY-2012.

SMC introduced a low priced high quality sanitary napkin, Joya, into the market in September 2013. It is an effort to grow the market for sanitary napkins by especially targeting non-users who rely on the unhygienic practice of using cloth to absorb menstrual flow, which increases the risk of

reproductive tract infections. In addition, fear of leakage and embarrassment leads many women, particularly young and school attending girls, to live in relative seclusion during their period. SMC has a little over 113 sales personnel who are distributing products to more than 284,987 retail outlets countrywide.

SMC enhances the capacity of private medical practitioners to offer clinical injectable contraceptives through its' Blue Star Program. It works through a network of 6,000 private medical practitioners as a new channel for marketing the clinical contraceptive, currently Injectable, with high quality of service-delivery.

SMC creates a network of informal health providers, consisting of PCHPs, to offer over the counter information and services in 19 priority districts. PCHPs play a vital role in the health care delivery system of Bangladesh. They provide most of the primary health services to the community.

Lastly, SMC utilizes Mobile Film Programs (MFPs) to educate people on health issues through educational films. MFPs are considered to be one of the most effective strategies to reach the rural population.

2 Beneficiaries of the pilot

Primary beneficiaries of the pilot under mSTAR were:

Annex Table 1: Beneficiaries of the SMC mSTAR pilot

SMC PROGRAMMATIC AREAS	BENEFICIARY NAME & SPECIFIC NUMBERS	NO. OF PRIMARY BENEFICIARIES	NO. OF SECONDARY BENEFICIARIES
Blue Star	Sales Manager- 4 Program Officer-Field Operations- 14 Blue Star Providers- 1598	1616	0
Private Community Health Providers (PCHP)	Team Leader- 4 Private Community Health Providers- 11,000	4	11,000
Cash Deposit to DFS agent	Sales Officer- 5	5	0
Sales Collection	Sales Officer- 5 Outlet Owner- 7	12	0

3 Geographic Coverage

The pilot intervened in the following locations of Bangladesh to address the flow of funds/ payments pertaining to three programmatic areas of SMC:

- BSP** A total of ten working areas of SMC were covered in the first category of beneficiaries. The regions were: Dhaka East, Dhaka West, Khulna, Chittagong, Sylhet, Barisal, Rangpur, Rajshahi, Mymensing and Comilla.
- PCHP** Five working areas of SMC were covered in the second category of beneficiaries. The regions were: Dhaka East, Dhaka West, Sylhet, Barisal and Comilla.
- Sales** From SMC operations, three Districts were covered in this category; Habigonj, Brahmanbaria and Comilla.

4 General objectives of the pilot

The pilot aimed to ascertain whether digital financial services are a viable tool that can be used in SMC to help stakeholders increase their efficiency and productivity, and reduce the risk of handling cash in their day-to-day transactions based on rigorous evidence from pilot results.

5 Background of the survey

The endline survey was conducted in order to understand the impact of the introduction of digital financial services under this pilot. Building on formal information provided about the intervention by SMC contacts and partly on information extracted from the baseline report, the study plan was designed to specifically assess the Theory of Change and the ensuing benefits/costs from intervention.

METHODOLOGY

1 Survey Technique

The endline retrospective study employed both qualitative and quantitative approaches in order to evaluate the impact of mobile money solutions on SMC operations. The quantitative approach was undertaken to grasp the underlying construct, if any, of a relationship between various factors of DFS adoption and uptake with reference to cost and benefit measures in concrete terms. On the other hand, the qualitative approach dealt with perceptual and softer dimensions with a view to reinforce the areas of common support between quantitative and anecdotal evidence.

2 Sampling strategy

Given the strict timeline of study implementation and ample variety of the target group, no methodologically sound sampling strategy could be deployed in the study. Respondents were selected based on the criterion of having experience using DFS from the following four groups of users:

- | | |
|----------------------|---------------------|
| a) Head Office Staff | c) Sales Officer |
| b) Area Office Staff | d) BSP/Outlet owner |

Both primary and secondary beneficiaries were included in this survey. Primary beneficiaries included Blue Star Service providers and outlet owner. However, senior and mid-level staff of SMC were included as secondary stakeholders. Target respondents were as follows:

- » Staff of SMC; SMC Head Office official, Sales Manager, Area Accountant, Team Leader (PCHP) and PO-FO (Blue Star) and sales officer.
- » Blue Star Service Provider (BSP) and Owner of outlet.

Distribution of Sample

- SMC Officials:

Annex Table 2: List of SMC staff interviewed in the endline survey

SMC OFFICIALS (HEAD OFFICE AND AREA OFFICE)	SAMPLE SIZE	QUALITATIVE (KII)	QUANTITATIVE SURVEY
Senior Management (Head office)	7	6	1
Other Head office staff	7	1	6
Project Coordinator (BSN and LARC)	2	0	2
Program Officer (BSP)	15	1	15
Program Executive (PCHP)	3	1	3
Senior Sales Manager	1	1	0
Area Accountant	1	1	0
Senior/Sales Officer	5	4	3
Total	41	15	30

- BSPs and outlet owners:

Annex Table 3: List of primary beneficiaries interviewed in the endline survey

PRIMARY BENEFICIARIES	SAMPLE SIZE	QUALITATIVE (KII)	QUANTITATIVE SURVEY
Blue Star Service Providers	94	0	94
Both BSPs and outlet owners	131	0	131
Outlet owners	10	0	10
Total	235	0	235

Blue star providers and outlet owners were selected from 9 districts where training programs were organized.

3 Study area

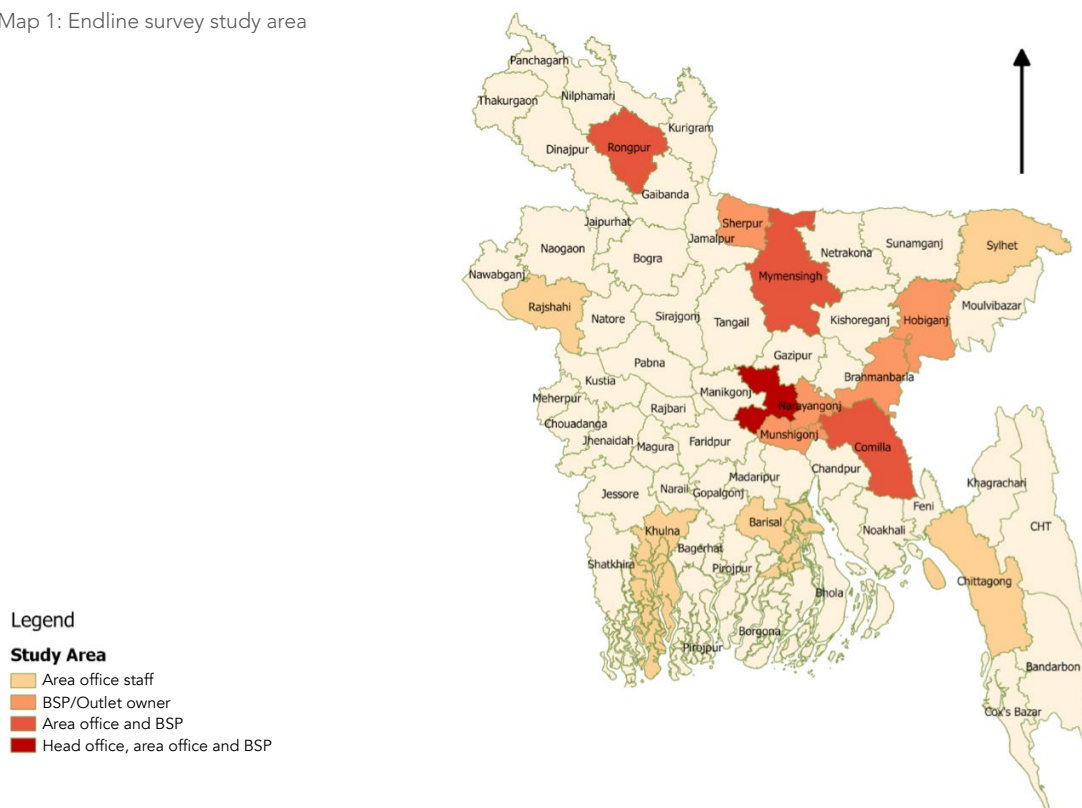
The selection of study areas solely depended on the lists of recipients and regions provided by SMC officials. The following is a list of areas covered by the study for each group of respondents:

Annex Table 4: Area of endline study

BLUE STAR PROVIDERS	SALES OFFICER	AREA OFFICE STAFF	HEAD OFFICE STAFF
» Dhaka	» Brahmanbaria	» Dhaka	» Dhaka
» Narayanganj	» Habiganj	» Rangpur	
» Munshiganj	» Comilla	» Khulna	
» B.Barua		» Barishal	
» Comilla		» Chittagong	
» Habiganj		» Sylhet	
» Mymensing			
» Sherpur			
» Rangpur			

Important to note, all of these 'Area Office Staffs' were surveyed while they were on a visit to the head office in Dhaka.

Map 1: Endline survey study area



4 Questionnaire design

Questions for the semi-structured questionnaire, which included both open and closed-ended questions with check boxes and choice options, were derived from a review of the project results framework and the mSTAR M&E plan. The questions were reviewed by SMC's Head of Training and Service Delivery, mSTAR/FHI 360 and the Research Department of SMC to ensure that it sufficiently captured all relevant information. In order to make the questions user friendly, question gates were used to direct respondents to the appropriate content depending on previous answers. The questionnaires were carefully tested and were modified and improved accordingly.

5 Data collection strategy

Baseline data was collected from SMC officials as a means of making a few valid comparisons with pre-intervention data points.

The initial plan was to collect data through an online Qualtrics form. However, due to a GPS malfunction in Qualtrics, hard copies of maps were provided to the surveyors so that they could visibly mark the place of interview. Later on, these locational tags were recreated on Google Earth for specific geo-coordinates that were merged with survey data on the basis of matching UIDs.

Data was collected through face-to-face interviews by research assistants on tablets using Google forms. Information and data was collected from four types of respondents. For the qualitative component of the research, face-to-face open ended Key Informants interviews (KII) were carried out among the selected participants following purposive sampling. Respondents for the KII were selected based on the understanding and knowledge of the services provided under mobile solutions. A structured survey questionnaire had been developed to undertake the research. Moreover, a checklist for KII was also developed to improve the outcomes of the KI interviews. A different team was formed in order to take the KI interviews among the diverse group of respondents including high officials from the head office of SMC.

The majority of respondents from each group were targeted for quantitative interviews with a smaller subset participating in qualitative interviews. Some head office staffs, owing to very low engagement with any of the relevant processes, were interviewed as key informants instead of quantitative survey respondents. Out of 5 Sales Officers on the list, both quantitative and KI interviews were done with three, while only the latter was done with the other two due to their unavailability during the quantitative survey round.

6 Training

An extensive participatory training had been organized for the research assistants prior to beginning the survey and qualitative research. Research assistants had to have a detailed understanding of the subject matter of the research, including key techniques to be applied for capturing logically valid response from selected respondents. All research assistants completed sets of run-throughs on tablet-based Google forms prior to beginning the research in the field. It helped them to identify problems and challenges related to collection of data online. Based on their experiences doing run-throughs, the mitigation of challenges was discussed with research assistants to improve the outcomes of the research. It also helped research assistants develop a sound understanding about the methodology of the research.

7 Questionnaire pre-testing

The questionnaire was pre-tested by interviewing some of the selected staffs from the area office, which provided the opportunity to check the viability of survey questionnaire. After successful completion of the pretesting, the survey questionnaire was revised and updated according to the feedback received during the pre-testing process.

Structured questionnaires were used to obtain data from the respondents. Each questionnaire was pre-tested to check the consistency, language, time, and other difficulties that would be encountered during the interviews. Findings from pre-testing were incorporated in the questionnaire and were finalized with the technical assistance from FHI 360.

8 Process and analysis of data

The process of data management and the ensuing analysis stages can be broadly split into two areas of quantitative and qualitative data. All qualitative data from Google Forms online were first imported into a general purpose statistical software called STATA for rigorous cleaning and reconciliation based on some cleaning protocols and codes of global standards. After a fair degree of cleaning, parts of the cleaned data were imported into MS Excel for the convenience of quick data visualization, while the remaining parts were visualized using STATA graphics. Geospatial visualization software Quantum GIS, as well as Google Earth, were also been used to visualize geographical information.

9 Validity and reliability

The validity and reliability of this survey was considered to be the foremost priority for the survey. Although the size of sub-samples of respondents was not derived using any sound statistically significant principles, overall sample size was calculated complying with 95% confidence interval and 10% margin of error calculation. The questionnaire was prepared based on the objectives of the survey and outcomes most relevant to measure the program objective. Prior to that, the questionnaire was pre-tested with the respective survey group so that the precision of surveying was ensured beforehand. Quality of the data was ensured at all levels of the survey, including training, data collection, data entry, editing and analysis.

10 Limitations

For successful completion of the survey, all methodological aspects were applied carefully. Nevertheless, the interpretation of survey findings has a couple of caveats as mentioned below:

- » Due to time and budget constraints, a robust sample was not possible to be drawn to see results at the regional/zonal level. It was an overall estimate to represent findings at the national level.
- » Lack of proper information on beneficiaries made stratified random sampling at the sub-group level impossible. This has bearing for any noise around survey estimates.

Annex 3

ADDITIONAL FINDINGS ON BSP AND OUTLET OWNERS

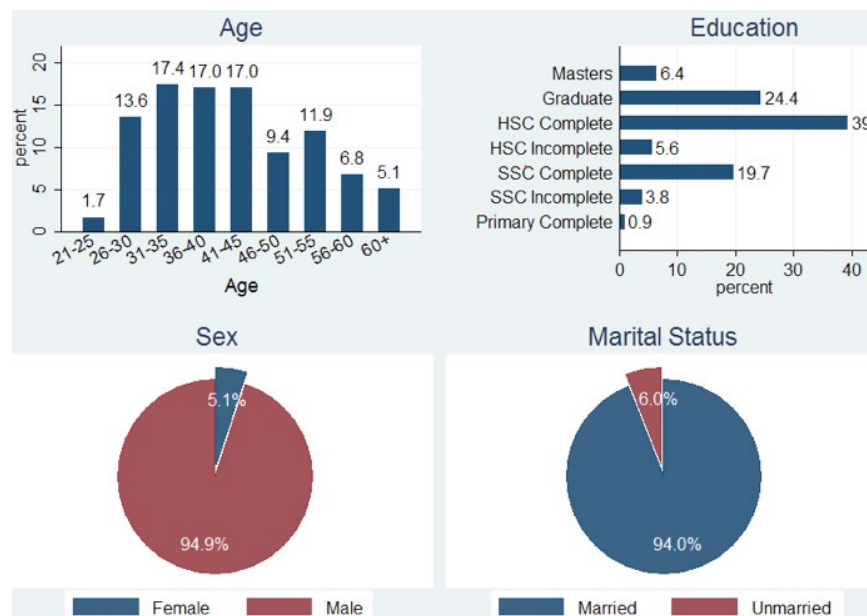
ADDITIONAL FINDINGS

1 BSP and Outlet owner demographics

The majority of the respondents had a decent background in formal education, as about 70% of them reported to have completed at least HSC and above. About 50% of the respondents were aged under 40, while 95% and 94% were male and married respectively.

As evident in the tabular plot of income and education dimensions below, the majority of respondents (62%) belonged to the composite socioeconomic category of educational qualification of HSC and above with monthly income class of up to 40,000 BDT. The monthly average income of this entire group of respondents is 27,038 BDT.

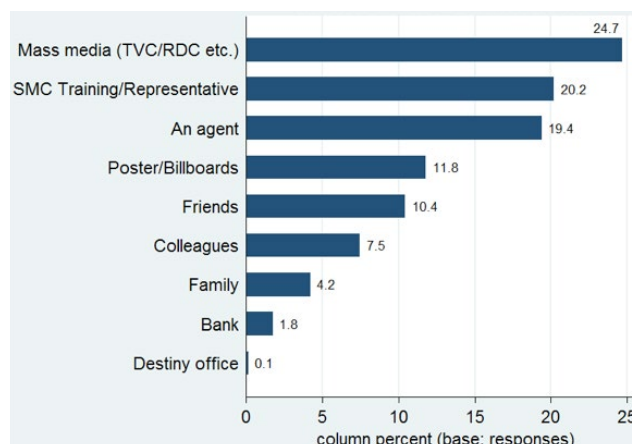
Annex Figure 1: BSP and outlet owner demographics



2 Source of knowledge about MFS

Major sources or area of first contact with the information about MFS, as reported by respondents, range from mass media (TVC/RDC etc.) (25%) to MFS agents (19%), as well as through SMC Training (20%). Compared to baseline data, the only difference arises from the incidence of training delivered by SMC.

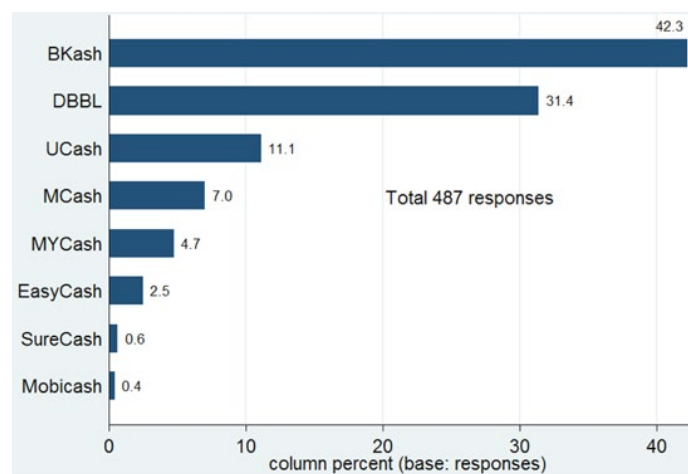
Annex Figure 2: Source of information about DFS



3 Available MFS Providers

bKash came out on top by an overwhelming majority when it comes to visibility, availability and market footprints, followed by DBBL and U-cash. Given how bKash is frequently and readily mentioned by the customers and the prevalence of the mention of difficulty with USSD menu among dropouts, partnering with BKash instead of just DBBL could be a potentially impactful alternative. The chart above depicts a multiple response distribution over a total of 487 responses captured.

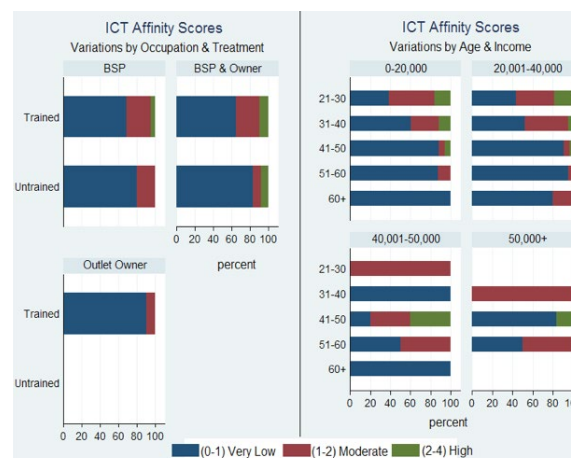
Annex Figure 3: Available MFS providers



4 Mobile phone affinity scores by occupation, age and income

The table of graphs above reveals BSPs who also own an outlet as more frequently using mobile phones than their BSP and outlet owner counterparts, which seems to accentuate further with the exposure DFS training provided by SMC. Furthermore, younger respondents appear to be more inclined than their older counterparts across all income groups, while affinity shows drastic growth among older people in higher income classes.

Annex Figure 4:
Mobile phone ICT affinity scores by occupation, age & income



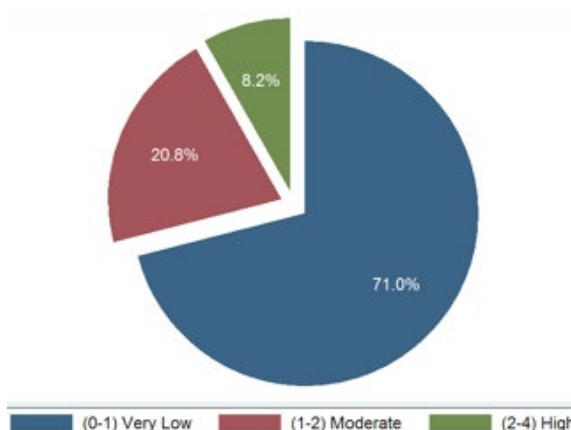
5 MFS Affinity Scores

Beyond just atomistically evaluating the exposure to and rate of interaction with different mobile-money features, MFS affinity scoring⁵ was used to better understand the tendency to access and use these features on a more general scale.

This MFS affinity score is the simple arithmetic average of the frequency of usage (never, occasionally, monthly, weekly and daily) along the seven MFS usage dimensions (Cash in, Cash out, Send money, Receive money, Save money, Make purchase and Pay bills)

The distribution of the resulting MFS Affinity Scores show that the majority of respondents are least inclined towards frequently using the seven MFS features considered while about 21% were found to be moderately frequently using the features.

Annex Figure 5: MFS affinity scores



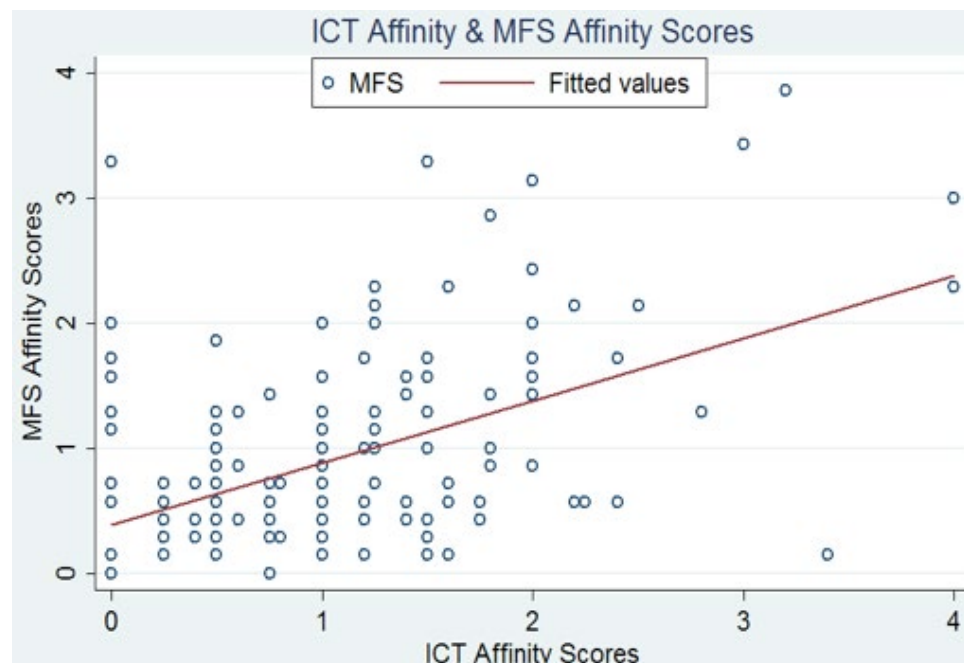
⁵ Frequency Scores: Never = 0. Occasionally = 1. Monthly = 2. Weekly = 3. Daily = 4 ICT Affinity Scores: (Frequency score [D1] + + Frequency Score [D5]) ÷ 7 Range: 0-4

6 Respondent's ICT affinity and its implications for MFS usage

Various studies over the last decade researched the potential factors affecting the consumer adoption of MFS and majorly found that the level of education, consumers' lifestyle, cultural practices, as well as opinions and influence of friends, family, and relatives and age influence the decision to adopt mobile financial services. Some studies also report the influence of technology/ ICT readiness behind the demand and adoption of MFS on the consumer level. On the backdrop of such evidence, a scatterplot of MFS Affinity Scores against corresponding Mobile Phone Affinity Scores was created in order to spot any identifiable correlation between the estimates on a continuous scale. Although a simple liner regression fit of MFS scores show an upward trend with mobile phone scores, the presence of too many outliers in the plot made the calculating of a Spearman's Correlation Coefficient implausible. Interestingly, some respondents with ICT scores as low as 0 fared much better in MFS scores compared to many in between 1-2 points. This may have come about due to numerous interactions between demographic factors like age, income, education and exogenous factors like trust, cultural influence and peer referrals.

As an attempt to explain the apparent relationship between mobile phone and MFS Affinity Scores, the scatterplot is recreated below by one of the major underlying dimensions: average monthly income. Interestingly, the majority of respondents belonging to the low-income cohort appear to be huddling in the lower left-hand corner of the plot, which denotes lower mobile phone and lower MFS at the same time. On the contrary, the higher income cohort data points are scattered over a relatively larger without any identifiable pattern of association.

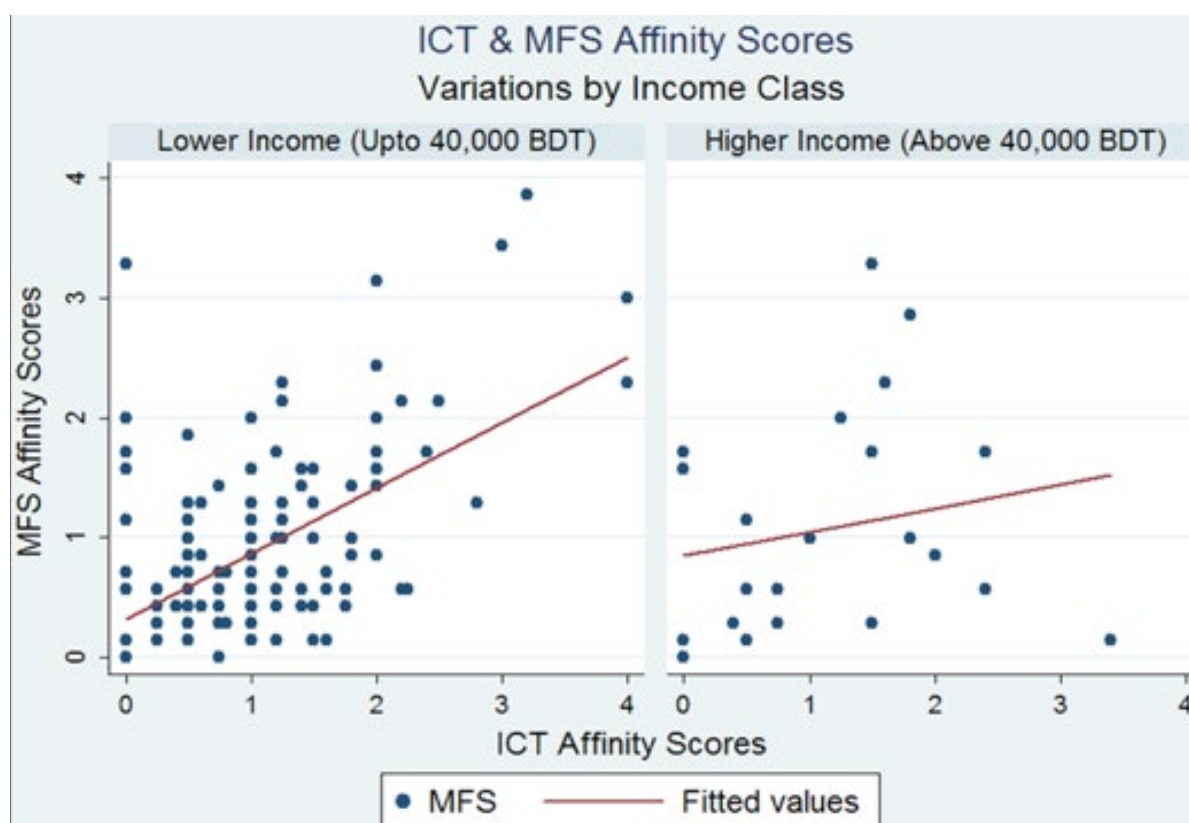
Annex Figure 6:
Relationship between
ICT and MFS affinity
scores



7 Respondent's ICT and MFS affinity by income class

Gradient of the linear fitted line on MFS scores denotes the marginal effect of an incremental gain in mobile phone score on MFS score. From that angle, the lower income cohort is poised to gain far more in MFS affinity from a marginal increment in exposure and habituation with mobile phones. This insight from data has a strong bearing for better focus in targeting MFS training sessions and knowledge campaigns in the future.

Annex Figure 7 : Relationship between mobile phones & MFS



Annex 4

TIME & COST

1 Per training session/day time component for different programs

PROGRAM	COMPONENTS	DESCRIPTION	BASELINE – CASH (IN MINUTES)	ENDLINE – DFS (IN MINUTES)	DIFFERENCE (IN MINUTES)	TIME REDUCED (IN %)
BSP Training Program	Payment processing including staff time	This includes all processing time including calculation, verification, approval, PO, etc.	700	601	99	14%
	Travel including waiting time	This includes travel to bank or agent point and waiting time in the queue.	70	30	41	58%
	Payment documentation time	This includes payments related documentation post factors including payment order copy, signature sheet record, filing and submission to finance for adjustment, etc.	1,898	943	955	50%
	Total	Total time of all of the above activities	2,668	1,574	1,095	41%
PCHP Training Program	Payment processing including staff time	This includes all processing time including calculation, verification, approval, PO, etc.	252	206	46	18%
	Travel including waiting time	This includes travel to bank or agent point and waiting time in the queue.	80	38	42	53%
	Payment documentation time	This includes payments related documentation post factors including payment order copy, signature sheet record, filing and submission to finance for adjustment, etc.	500	360	139	28%
	Total	Total time of all of the above activities	831	604	228	27%
Sales Collections using Super-Agent	Collection deposit processing including staff time	This includes all processing time including calculation, verification, DD time, banking hours laps, etc.	68	24	44	65%
	Travel including waiting time	This includes travel to bank or agent point and waiting time in the queue.	65	28	37	57%
	Payment documentation time	This includes payments related documentation post factors including payment order copy, filing and submission to finance for adjustment, etc.	48	48	-	0%
	Total	Total time of all of the above activities	181	100	81	45%

2 Per training session/day cost component for different programs

PROGRAM	COMPONENTS	DESCRIPTION	BASELINE – CASH (IN BDT)	ENDLINE – DFS (IN BDT)	DIFFERENCE (IN BDT)	COST REDUCED (IN %)
BSP Training Program	Payment processing cost	This includes the cost associated with staff time for calculations, verification, approvals, etc.	3,135	4,507	(1,372)	-44%
	Travel and waiting cost	This includes the cost of labor and transportation to travel to the bank or agent point and waiting in the queue.	277	117	159	57%
	Payment documentation cost	This includes the cost of labor for payments related to documentation, including payment order copies, signature sheet records, filing and submission to finance for adjustment, etc.	9,417	6,435	2,982	32%
	Total	Total cost of all of the above activities	12,828	11,060	1,769	14%
PCHP Training Program	Payment processing cost	This includes the cost associated with staff time for calculations, verification, approvals, etc.	1,390	1,118	271	20%
	Travel and waiting cost	This includes the cost of labor and transportation to travel to the bank or agent point and waiting in the queue.	351	193	158	45%
	Payment documentation cost	This includes the cost of labor for payments related to documentation, including payment order copies, signature sheet records, filing and submission to finance for adjustment, etc.	2,732	2,511	221	8%
	Total	Total cost of all of the above activities	4,473	3,822	651	15%
Sales Collections using Super-Agents	Collection deposit processing cost	This includes the cost of labor for all collection deposit and processing, including calculation, verification, approval, etc.	148	52	95	64%
	Direct costs	This includes the cost of labor and transportation to travel to the bank or agent point and waiting in the queue.	191	111	80	42%
	Indirect costs	This includes the cost of labor for payments related to documentation, including payment order copies, signature sheet records, filing and submission to finance for adjustment, etc.	104	104	-	0%
	Total	Total cost of all of the above activities	443	267	176	40%

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