

Mobile Financial Services in Bangladesh: An Overview of Market Development

July 2012



BANGLADESH BANK

Mobile Financial Services in Bangladesh: An Overview of Market Development¹

July 2012



Bangladesh Bank
Research Department

¹The paper has been prepared by Bangladesh Bank officials namely, Md. Golzare Nabi, Md. Sanullah Talukder, Prajna Paramita Saha, Rama Rani Sutradhar, Ayesha-E-Fahmida, and CGAP officials namely Gregory Chen and Shweta Banerjee, respectively. The views expressed in the paper are authors' own and do not reflect the views of the institutes in which they work. Comments on the paper are highly welcome and can be sent at golzare.nabi@bb.org.bd and greg.chen.cgap@gmail.com

Snapshot of Bangladesh Mobile Financial Services July 2012

Demographics

Population:	150 m
% below poverty line:	31.5%
% urban:	27%
% under age 25:	nearly 60%



Banking Infrastructure

Bank Branches:	7,961
ATMs:	3,000 (approximate)
Bank Accounts:	55 million
MFI Customers:	18 Million ²
Mobile subscriptions:	89 million

Mobile Financial Services upto March 2012 (excluding remittance-only deployments)

Banks licensed by Bangladesh Bank:	10
Live MFS deployments:	5
Mobile Accounts Opened:	442,269
Appointed Agents:	9,093
Total Value of Transactions (Crore Taka):	207

²BRAC Development Institute, "State of the Sector Report 2011". Some figures calculate 33 million borrowers,

Table of Contents

I.	Introduction	9
II.	Background on The Bangladesh Financial Sector	9
III.	Regulation of Mobile Financial Services	11
IV.	Market Development of Mobile Financial Services	14
	Partnerships Between Banks and Mobile Network Operators ..	15
	Findings on the MFS Market Structure	16
V.	Views from Clients and Agents	18
VI.	Goals & Recommendations	19
Annex 1:	Bank MFS Deployments	22
Annex 2:	Bank International Remittance-Only Deployments	27
Annex 3:	Four Large MNOs	29
Annex:	Banks and MNOs Contacted	32

Acknowledgements

This report was initiated by Bangladesh Bank in the interests of helping the market for mobile financial services to develop safely and reach a large number of people. It was initiated and guided by Dr. Hassan Zaman, Senior Economic Advisor to the Governor. A team from Bangladesh Bank's Research Department, Governor's Secretariat and Department of Currency Management and Payment Systems produced the report. The report received input from CGAP, an independent global policy and research body focused on financial inclusion www.cgap.org. This report would not have been possible without the encouragement and support of the Governor, Economic Adviser and the Executive Director, Department of Currency Management and Payment Systems, Bangladesh Bank.

Team Members

Bangladesh Bank		CGAP
Md. Golzare Nabi Joint Director Research Department Bangladesh Bank	Md. Sanallah Talukder Joint Director Research Department Bangladesh Bank	Gregory Chen CGAP
Prajna Paramita Saha Deputy Director Department of Currency Management and Payment Systems Bangladesh Bank	Rama Rani Sutradhar Asst. Director Research Department Bangladesh Bank	Shweta Banerjee CGAP
Ayesha-E-Fahmida Khatun Assistant Director Governor's Secretariat Bangladesh Bank		

The team is grateful to ten banks, four Mobile Network Operators (MNOs) and one NGO that contributed data and opinions on MFS to help compile this report.

Banks: AB Bank, Bank Asia, BRAC Bank/bKash, Dhaka Bank, Dutch Bangla Bank, Eastern Bank, Mercantile Bank, Premier Bank, Southeast Bank, and Trust Bank.

MNOs: Airtel, Banglalink, GrameenPhone, and Robi.

NGO: BRAC

Key Definitions in Mobile Financial Services

Agent	A person or organization authorized by a bank to carry out financial transactions on behalf of the bank. Often these are small shops whose proprietor can provide cash-in and cash-out services to a bank's clients.
ARPU	Average Revenue Per User - standard comparable measure of revenues for mobile network operators.
IVR	Interactive Voice Response - refers to different ways users can use a voice prompted menu driven service over the phone.
Prepaid mobile instruments	Allow customers to add value and spend this value at vendors, utilities and other merchants. But cash-out is either not permitted or highly restricted. Airtel Money in India and MobiCash in Bangladesh are prepaid mobile instruments.
MNO	Mobile Network Operator - Airtel, Banglalink, Citicell, GrameenPhone, Robi, Teletalk.
SmartPhone	Handheld phone with more advanced computing power than a normal mobile phone with the ability to undertake internet web based transactions using mobile network data service with no need for a special channel negotiated with mobile network operators.
SMS	Short Message Service - text messaging over mobile phones.
USSD	Unstructured Supplementary Service Data - a real time communication channel between a mobile handset and the servers of a mobile network operator. MFS providers typically require a commercial agreement with a mobile network operator to gain access to USSD, but this has the advantage of being accessible over any handset.
UISC	Union Information and Service Centers - rural one-stop services outlets in Bangladesh run by local entrepreneurs offering internet based information services. In some cases UISCs are being used as agents for MFS.

I. Introduction

Mobile Financial Services (MFS) is an approach to offering financial services that combines banking with mobile wireless networks which enables users to execute banking transactions. This means the ability to make deposits, withdraw, and to send or receive funds from a mobile account. Often these services are enabled by the use of bank agents that allow mobile account holders to transact at independent agent locations outside of bank branches. MFS is still new in Bangladesh and this report aims to capture its early development and learn lessons.

Access to formal financial services can help households to better plan and manage their lives. MFS offers the opportunity to build another channel beyond the bank branch and ATM network to enable millions to have easier access to the formal banking system. Bangladesh Bank aims to build a commercially viable, competitive and safe MFS market.

The objective of this report is to share a market level overview of the early stage progress of MFS in Bangladesh up through the first quarter of 2012. With this goal in mind Bangladesh Bank has collaborated with CGAP (www.cgap.org), an independent policy and research body dedicated to financial inclusion, to complete this study. The information and analysis in the report are based on a series of short surveys and discussions with ten banks and four MNOs, plus interviews with a sample of one hundred MFS users and fifty agents extending the service.³

II. Background on The Bangladesh Financial Sector

Bangladesh's financial architecture started developing within public sector institutions established at the time of Bangladesh's independence. Over the last thirty years several new generations of private banks have entered and today make up about one-half of banking assets. Bangladesh has been a global leader in financial inclusion, building some of the original and still largest microfinance institutions (MFIs). In addition to 4 state owned commercial banks and 610 licensed MFIs, Bangladesh's financial sector consists of 30 domestic commercial banks, 9 foreign banks, 4 government-owned specialized (development) banks, and 30 non bank finance institutions.

³Bangladesh Post offers some basic payments services through the use of its network of offices and using the wireless networks of mobile network operators. These postal based services are not the focus of this present report.

In terms of total assets, the 47 scheduled commercial banks dominate Bangladesh's financial sector. The development of alternative banking channels by banks has been led by ATM deployment in recent years. Various multi-bank switches are also in place such as Cash Link, Q-Cash and Ominibus. Overall, banking channels have been expanding. Within this context, MFS presents an opportunity to build out another possible banking channel and to make transaction points even more widely available. Although the activities of bank agents are still underdeveloped, the 9,093 agents across Bangladesh are already significant in number as compared to ATMs and bank branches.

Transaction Points Among Scheduled Commercial Banks

Branches	ATMs	Agents*
7,961	3,000	9,093

*Does not include agent points which only do international remittance disbursements over the mobile.

The combination of a large microfinance market and a growing banking system has led to significant progress on financial inclusion. Where Bangladesh is well ahead on credit with 23.3% of adults gaining access to credit, more than double the global average for low income countries. Bangladesh's overall access to accounts for adults (age 15 or over) of nearly 40% compares favorably with South Asia's average of 33% and the low-income country average of 27%. In terms of number of savings accounts at formal institutions, Bangladesh's progress is higher than the global and regional average. Only 1.2% in Bangladesh receive payments over the mobile phone whereas average in low income countries is closer to 9.1%.⁴

Given the need to continue to advance financial inclusion Bangladesh Bank believes that fully developed MFS operations can reduce barriers of physical access and cost and over time enable a much higher proportion of the population to use basic formal sector deposit and payment services. Access into the formal system might eventually lead to product innovations in insurance, credit, pensions and government payments that reach many millions of Bangladeshis. Entry to the formal financial sector can lead to greater financial intermediation and contribute to growth.

⁴World Bank, The Little Data Book on Financial Inclusion, 2012

III. Regulation of Mobile Financial Services

Following several years of deliberations and ad hoc permissions on MFS, the Department of Currency Management and Payment Systems of Bangladesh Bank issued "Guidelines on Mobile Financial Services (MFS) for the Banks" on 22 September 2011 which were subsequently amended on 20 December 2011. A current version can be found at the Bangladesh Bank website <http://www.bangladesh-bank.org> under the Regulations and Guidelines section.

These guidelines state that only a bank-led model will be permitted. For Bangladesh Bank this means that a customer's account, termed "Mobile Account", will rest with the bank and will be accessible through the customer's mobile device. This mobile account will be a non-chequing account classified separately from a standard banking account.

The guidelines permit the following services, subject to specific bank proposals to and clearances by Bangladesh Bank:

1. Disbursement of inward foreign remittances
2. Cash in/out using mobile account through agents/Bank branches/ATMs/MNO's outlets
3. Person to Business Payments (utility bill payments or merchant payments)
4. Business to Person Payments (salary disbursement, dividend and refund warrant payments, vendor payments)
5. Government to Person Payments (elderly allowances, freedom-fighter allowances, subsidies)
6. Person to Government Payments (taxes, levy payments)
7. Person to Person Payments P2P (One registered mobile account to another registered mobile account)
8. Other Payments (microfinance, overdraft facility, insurance premiums, deposit pension scheme deposits)

Bangladesh Bank has established limits on P2P transactions of taka 10,000 per day and 25,000 per month. These amounts are subject to change from time to time at the discretion of Bangladesh Bank.

Following the initial guidelines, Bangladesh Bank also issued an update to the guidelines with some modifications on 20 December 2011. These modifications clarified that the bank bears responsibility for know-your-customer (KYC) practices. It restricts P2P payments between holders of registered mobile accounts thereby restricting the use of services in which the recipient cashes out a payment without opening a mobile account.

Seventeen banks have been granted permission to introduce MFS by Bangladesh Bank. Ten banks have launched MFS and of these five are licensed to offer a range of service beyond inward foreign remittances.

Table 1: Summary of MFS Permissions Granted - March 2012

BANK	TECHNOLOGY PLATFORM	MNO PARTNERSHIPS	LAUNCH DATE	REGISTERED CUSTOMERS	AGENTS	TRANS-ACTIONS (CRORE TAKA)
Trust Bank	Genweb2	Teletalk	Aug-10	1,104	329	0.17
Dutch Bangla Bank	Sybase 365	Airtel, Banglalink Citycell GrameenPhone	May-11	172,020	3,181	88.29
BRAC Bank/bKash	Fundamo (Visa)	Banglalink Robi GrameenPhone	Jul-11	237,423	5,383	118.51
Mercantile Bank	SMG	GrameenPhone	Feb-12	1,392	170	0.10
Bank Asia	iPay	Not required	Mar-12	0	30	0.01
First Security Islami Bank	Progoti Systems		Mar-12			
Citi N.A						
Sonali Bank	Digital Technologies					
Prime Bank	SMG		Mar-12			
Bangladesh Commerce Bank	iPay		Mar-12			
Janata Bank	Transaction Solution					
TOTAL				442,289	9,093	207.08
INTERNATIONAL REMITTANCES PERMISSION ONLY						
Eastern Bank	Joint with Banglalink	Banglalink Robi	Apr-10	293	1,386	35.96
Dhaka Bank	Comviva	Banglalink	Apr-10	594	1,786	11.47
AB Bank		Citycell	Sep-10	-	116	0.04
Southeast Bank		GrameenPhone	Jun-11	-	200	-
Premier Bank			Sep-11	-	182	0.01
NCCBL		GrameenPhone				
Standard Bank		GrameenPhone				
TOTAL				887	3,670	47.48

IV. Market Development of Mobile Financial Services

The second half of 2011 marked an important turning point in MFS for Bangladesh. Earlier ad hoc permissions from Bangladesh Bank were replaced with a set of guidelines providing the regulatory certainty critical to promote market development. Providers have responded positively with five banks establishing active deployments. The three largest of these were launched in 2011 and early 2012 just as the Bangladesh Bank's guidelines were being finalized and made public.

By the end of the first quarter 2012 the fastest early expansion has come from BRAC Bank/bKash and DBBL that have the largest numbers of registered customers and agents. These two players have also each signed up 3 and 4 MNO partners respectively. Bank Asia is notable in that it offers an alternative mobile phone technology which does not require MNO agreements and instead enables transactions over Smartphones using internet based applications.

The deployments that focus on establishing mobile accounts and basic P2P services have grown the fastest so far. Earlier licenses offered to banks and their MNO partners solely for inward foreign remittances have not grown much- a pattern consistent with international experience.⁵

The MFS market is at an early stage of development as the newest providers are seeking to stabilize their technology, build out agent networks and acquire new customers. This involves a complex, sequenced set of activities that includes: (1) finding and training agents, (2) marketing to bring attention to the service, (3) acquiring customers using know-your-customer (KYC) and account opening processes while at the same time helping new customers to begin to transact. The deployments that are most active today are seeking to expand their customer bases during 2012. For example, BRAC Bank/bKash and DBBL aim are aiming for multi-fold growth during 2012 which could push their combined customer accounts to between 2 and 3 million within a year's time, possibly more. It is hoped that other providers entering the market might also grow and provide more alternatives and competition. It is still early and much more will be learned about MFS in Bangladesh over the coming year.

⁵CGAP, Landscape study on international remittances through mobile money, 2012

Partnerships Between Banks and Mobile Network Operators

The main consideration of banks and MNOs today is how to forge partnerships. There remain important questions about sharing revenue, leveraging each others' respective strengths and meeting regulatory requirements.

These partnership negotiations occur as the mobile market in Bangladesh is reaching a mature stage of development. There are 89 million connections in Bangladesh in a country of about 150 million. There are six providers, although two are quite small (Table 2). While competition for market share is significant, there remain differences among the largest four players.

GrameenPhone (GP) holds 42% of total connections and also has a more lucrative customer base with the highest average revenue per user (ARPU) of \$2.61 compared to the country average of \$2.30. Banglalink and Robi sit at second and third largest by market share. Airtel is the most recent entrant and while it is significantly smaller today than the larger three, Airtel is part of a large global company with operations in 20 countries and seeks to significantly expand its subscriber base in the coming years.

Table 2: MNO Market Data - March 2012

MNO	Year Service Acquired or Launched	Connections (millions)⁶	Average Revenue Per User (US\$ per month)⁷
GrameenPhone	1997	37.6	2.61
Banglalink	2004	24.7	1.86
Robi	1997	17.7	2.28
Airtel	2011	6.4	N/A
Citycell	1991	1.8	N/A
Teletalk	2005	1.3	N/A
TOTAL		89.5	2.30

⁶ Bangladesh Telecommunication Regulatory Commission, March 2012

⁷ Wireless Intelligence GSMA, March 2012

MNOs broadly see two potential benefits to MFS. One is an additional source of revenue to complement their voice and data revenue. The other benefit is the ability to attract and retain customers who might otherwise switch to another MNO (i.e. reducing "churn"). The market structure and positioning of each MNO may affect how they see MFS. Importantly, all four of the largest MNOs are international companies and in most cases MFS are a rising priority for these companies globally.

Findings on the MFS Market Structure

The MFS guidelines and the 'honest broker' role taken on by Bangladesh Bank have been instrumental in the recent growth of this sector. After several years of uncertainty, the firm move by Bangladesh Bank to establish MFS guidelines provided a positive signal that is enabling market growth. Bangladesh Bank has also been proactive in bridging differences between commercial banks and MNOs, and this 'honest broker' role has been instrumental to the recent rapid growth of BRAC Bank and Dutch-Bangla Bank in this sector.

Banks and MNOs share the view that the potential for MFS lies initially with P2P, small merchant payments and mobile top-ups. Interviews and surveys with banks and MNOs presents a consistent picture that the expectations are for small payments to be the early drivers of MFS. At the same time some also see the benefits of safekeeping of funds. Importantly, banks and MNOs don't expect large volumes of inward foreign remittances to be received over MFS. They recognize that mobile accounts will need to have more usability before clients will want to receive inward foreign remittances into a mobile account. Deployments focusing on establishing mobile accounts and driving small domestic payments are the priority.

BRAC Bank/bKash and Dutch Bangla Bank are the early leaders in the market. Both Dutch Bangla and BRAC Bank/bKash launched in 2011 and have moved to activate agent networks in nearly all districts. They have built these initial agent networks through NGO partners or other third party distribution companies. Both have opened several hundred thousand mobile accounts and their transaction volumes since launch are higher than others so far. Both DBBL and BRAC Bank/bKash rely primarily on making contracts with MNOs for the use of USSD channels.

The more recent launch of Bank Asia's program is notable. Bank Asia is a more recent entrant and has a different approach. It offers an MNO independent technology, but is limited to those with Smartphones which have higher computing capability and can use existing data services provided by MNOs with no need for a special contract with any MNO.

The most significant efforts are currently on identifying, quantifying and negotiating mutually beneficial partnerships between banks and MNOs. MNOs have opened up their USSD channels to banks and more such agreements are being actively negotiated. These negotiations are complicated because of several factors. One is that banks appear to have a regulatory advantage given the clear decision for a bank-led market. At the same time, banks tend to want MNOs to be a vendor of wireless connections rather than equal business partners in a joint venture. MNOs believe they have more to offer than wireless connectivity. They feel they bring distribution power, an understanding mass market client behaviors and skills in how to manage a businesses involving millions of users. On the other hand, MNOs may not fully appreciate the regulatory risks or business case for the banks. For instance, MNOs may over-estimate the float revenue banks might gain. These differences of perception are common in other countries as well. Even with agreements in place the further negotiation of adjustments and additions to the partnerships will remain important for market development.

The challenge of forging partnerships is compounded by different expectation of the total size of the MFS market and the timeline to generate an attractive ROI. Some are targeting only several hundred thousand users, while others see the market opportunity to be tens of millions of users. Some market players want to see a positive return on investment in a matter of 1-2 years. Others feel that the micro-payments business must be very large to succeed and therefore estimate that the market may take up to 5 years to develop. The different perceptions of market size and timelines makes the process of partnership negotiation complicated.

V. Views from Clients and Agents

Bangladesh Bank conducted phone interviews with a random sample of 100 MFS clients and 50 agents across Bangladesh. The overall findings suggest that the service is reaching urban and non-urban areas and that clients and agents are cautiously optimistic that the services might become more important to their lives over time. At the same time, it is also very early and the results should be interpreted as preliminary and as one snapshot in time. The views on MFS could change quite quickly especially as the market is expanding and many new clients and agents are being brought into the system.

Clients

The client sampling drew respondents from 28 districts of Bangladesh. There is a higher representation from some urban areas of Dhaka (10%), Comilla (11%) and Chittagong (7%). But the overall representation indicates services are beginning to reach many other parts of Bangladesh even at this early stage. This also indicates that the agent network is beginning to extend more widely beyond urban areas.

One encouraging sign is that all the respondents confirmed that they are registered account holders. This finding suggests that the KYC process for account opening has been sound and also that clients understand that they have an account. Most users had heard about the service through advertisements (42%). But there was also a large number who learned about the service directly from a nearby agent (36%) or from a relative (22%).

The reasons for use are varied. Three quarters of respondents said their primary use of the service is to send or receive payments, while the remaining one-quarter highlighted safekeeping as the main reason. Rural users specifically highlighted the benefits of receiving payments. This suggests that there could be a pattern of users who are primarily receivers outside the major metropolitan areas - this would match the expectations of some who believe that MFS will be used heavily for urban-to-rural domestic remittances.

In terms of future use, 12% said that they are not likely to continue to use the service again. For these respondents the service may have been a one-time need or they may not have liked the service after trying it. Overall, a

large majority felt they would continue to use MFS. Seventy two percent of respondents said that they "liked" the service. A sample size of a hundred is small and should not be taken as statistically significant, but it does provide an indication that MFS is active in many parts of Bangladesh and provides some positive early signs.

Agents

Interviews with 50 agents across Bangladesh suggested quite similar findings. All the agents acknowledged that they are doing work on behalf of an MFS service. They were located in 17 different districts. Thirty two percent were in the more urban centers of Chittagong, Comilla or Dhaka with the remaining in other districts. One half had come to know of the agent work by way of an advertisement. This suggests that mass media is generating some awareness and reaching potential agents. About 26% stated they were "not sure" whether they liked the business yet. But overall the responses suggest that agents are guardedly hopeful that the business might be something worthwhile to remain involved with. However, the transaction volumes generated so far in the MFS business nationally is not likely to have created a large increase in revenue for most agents and many are still quite new to being an agent. Therefore, this small sample of agents should be interpreted with some caution.

VI. Goals & Recommendations

The goal of Bangladesh Bank is to develop MFS as a commercially viable, safe and competitive banking channel. MFS can make more points of service available and at lower costs across the banking system. An important benefit is that MFS has the potential to bring many un-banked into the formal financial sector and can also become critical infrastructure that lowers costs and raises productivity across the banking system and wider economy.

To achieve this broad vision for MFS, Bangladesh Bank would like to see healthy competition from a wider range of providers. Two providers have made significant headway into the sector as of March, 2012. Beyond these two, it is critical that at least two additional (preferably four more) sizeable players take-off in this the market. Bangladesh Bank would also like to see a diverse set of technologies used, different kinds of agent networks deployed and a range of products available so that ultimately consumer choice is ensured.

To pursue this broad vision and the near term goals of building out the market, this report makes the following recommendations.

1. **It is critical that Bangladesh Bank remain firm and send a consistent signal that the overall regulatory structure it chose in 2011 will remain in place.** This certainty will allow partners to negotiate long-term agreements. Uncertainty or mixed signals might delay or confuse negotiations. Incremental refinements and interpretations of the regulatory structure by Bangladesh Bank may be helpful from time to time.
2. **Bangladesh Bank should actively promote greater competition by facilitating entry of 2-4 additional serious players.** The fast, early growth of Dutch Bangla Bank and BRAC Bank/bKash is welcome and was in part catalyzed by pro-active intermediation by Bangladesh Bank with the MNOs and these two banks. However, it would be less than ideal to have 1-2 dominant players and Bangladesh Bank should actively promote entry of 2-4 additional serious players as discussed above. There are several tools Bangladesh Bank should use to promote more competition and entry.
First Bangladesh Bank can pursue a more active intermediation / 'honest broker' role so that MNOs and banks bridge their differences and enter into agreements. Second it can also pursue measures that make MFS more attractive by promoting government payments onto electronic channels. Third, Bangladesh Bank can encourage donors or venture funds to invest in 3-4 fledgling banks who in future can provide real competition to the existing two market leaders. Fourth Bangladesh Bank can build links for MFS to connect into the national payments system.
3. **Bangladesh Bank should seek market feedback from the full range of players in a systematic manner.** Bangladesh Bank will benefit by hearing from industry about how the business works and on the details of the regulations. Market feedback can be obtained through regular field visits with a variety of MFS providers. In addition, it should also convene a regular (possibly quarterly) forum with banks and MNOs. Bangladesh Bank should

use this process to interpret the existing guidelines to promote safe and competitive market development. This feedback is best collected in regular consultative forums to hear from a range of views rather than only one-on-one communication. Examples of issues to be discussed include: KYC standards and practices, bank and MNO branding, and use of devices other than the mobile phone such as card and POS.

4. Bangladesh Bank should establish a quarterly dashboard report detailing the scale and components of MFS development. The MFS market is just beginning to move in Bangladesh and will grow in the coming year and beyond. To understand the market's development and share this with the public, Bangladesh Bank should circulate periodic data such as: number of active agents, accounts opened, active clients, transaction volumes and product usage. This may come out as a periodic report in a standard format collected from market players. Such data will provide feedback that speeds market development while also providing Bangladesh Bank information on the market development, payments infrastructure, financial inclusion and on the key risks.

Annex 1: Bank MFS Deployments

Bank Asia Ñ Bank Asia was launched in 1999 and grew through two significant acquisitions. A 3rd generation Bank, Bank Asia now has 66 branches and 10 service centers and 5 Islamic windows across Bangladesh serving primarily a corporate banking clientele. In addition to its own 65 ATMs, it has expanded further reach through the use of the Q-Cash, Cash Link and Visa shared ATM networks.

Bank Asia launched its MFS in the first quarter of 2012. What differentiates Bank Asia is that its technology base is a platform called iPay that is accessible via SmartPhones. This allows use of internet based applications for transactions. Thus, this service can be used without relying on a channel negotiated with an MNO. Any client with a SmartPhone could potentially use the Bank Asia service. However, the potential market segment that owns a SmartPhone is a small fraction of the total mobile phone market. Therefore the potential customer segments Bank Asia is a subset of what other players might reach.

Bank Asia sees domestic payments as the primary business opportunity. However, beyond this they aim to offer MFS for Ektee Bari Ektee Khamar, a livelihoods project for the rural poor where Bank Asia aims to link beneficiaries to accounts using MFS. There are also plans to launch a card and POS solution which will provide an additional access channel to bank accounts.

BRAC Bank/bKash Ñ BRAC Bank was founded in 2001 by the large development organization BRAC. While BRAC Bank went public after its first three years in operation it remains affiliated with the broader BRAC group. A third generation bank, BRAC Bank has built its profile based on a core business of lending to the SME market, but added more retail and corporate work in recent years.

In 2011 BRAC Bank launched a 51% owned subsidiary called bKash combined with an investment from the USA based Money in Motion. Bangladesh Bank granted permission to BRAC Bank and bKash jointly to operate the MFS business. The MFS guidelines specifically allow banks and their subsidiaries to carry out the MFS business.

BRAC Bank/bKash launched its operations in July, 2011 and its initial MNO partner was Robi. In January GrameenPhone (GP) opened a USSD channel to bKash opening the service to GP subscribers. BRAC Bank/bKash's service is delivered over the Fundamo platform initially developed in South Africa which has since been acquired by Visa. BRAC Bank/bKash has agents in all districts of Bangladesh and its aspiration is to be a large scale provider of MFS reaching tens of millions of Bangladeshis in a few years time. BRAC Bank/bKash are cautious that the service would not be profitable for another 4-5 years.

Division	District	Upazila	Agent	Registered Clients
Dhaka	17	168	1,769	66,149
Chittagong	11	91	1,230	64,937
Rajshahi	8	78	667	42,767
Sylhet	4	37	367	10,570
Khulna	10	63	585	13,673
Barisal	6	39	363	12,571
Rangpur	8	59	402	26,756
Total	64	535	5,383	237,423

BRAC Bank/bKash has also received a \$10 million grant from the Bill and Melinda Gates Foundation and technical assistance from ShoreBank International to support the launch of its MFS services. BRAC Bank/bKash also partners with BRAC to identify and train new agents in addition to receiving agents from Robi and also searching for agents directly.

From BRAC Bank/bKash perspective, the main challenge is to establish sound commercial agreements with MNOs. The other challenge is to motivate agents and clients to begin to use the service more actively. BRAC Bank/bKash believes building the business will take more time, scale and awareness building.

Dutch Bangla Bank Ñ DBBL has long been a strong advocate for the use of technology in banking. Along with its 113 branches, DBBL has been active building a wide payments infrastructure with 2,000 ATMS and 4,000 POS terminals, 2.3 million debit cards, and an Internet Payment Gateway.

DBBL launched its MFS service branded "DBBL Mobile" in March, 2011 using a technology platform from an international vendor called Sybase 365. Presently DBBL operates this as a separate platform from its core banking system, but the two systems can be linked in the future. This platform uses various technologies (SMS, IVR, USSD) to open accounts and process payments. The main service is a menu driven service accessed through USSD channels provided under agreements with Airtel, Banglalink and GP. DBBL also offers an SMS/IVR based service for Citycell subscribers.

DBBL makes its services available through a network of 3,181 agents provided by a combination of Banglalink, Citycell, Airtel, and UISC⁸. But the largest number of agents DBBL acquires itself through third party distributors. In total DBBL reports agents in 61 districts serve a total of 172 thousand accounts. DBBL aspires to acquire 1 million customers during 2012 and 10 million during 2013.

Division	Districts	Upazila	Agents	Registered Clients
Dhaka	17	108	1,862	113,862
Chittagong	8	46	1,052	46,103
Rajshahi	8	55	3	0*
Sylhet	4	14	266	12,055
Khulna	10	44	0	0*
Barisal	6	20	0	0*
Rangpur	8	51	0	0*
Total	61	338	3,181	172,020

*Services about to be launched

⁸Union Information Service Centers are small service centers established in all basic administrative territories as a partnership between government and a local entrepreneur. Being an agent is one of several services these small scale service centers undertake.

Dutch-Bangla Bank sees the main challenges in establishing stable commercial relationships to use the wireless networks of MNOs. It also sees profitability and revenue in the early stages as a major challenge because the revenues are not sufficient to provide the income necessary to agents to build the business. An additional challenge is maintaining quality and covering the high cost of KYC with large numbers of new accounts being opened.

Mercantile Bank Mercantile Bank is a private bank with 75 branches and 50 ATMs. Three years ago they established a Mobile Banking team. This division has established a technology approach presently based on platform from a local vendor called SMG. Mercantile Bank's MFS service has been tested and allows the agent to transact using a Java based program over an internet enabled Smartphone. Clients are however free to use any phone and transact over an IVR driven menu based service. Mercantile has established 148 agent locations mostly from the UISCs. Thus far Mercantile has opened 1,392 mobile accounts, though this is mostly from within a closed group of bank staff. The service has not been marketed heavily to outside consumers yet.

Division	Districts	Upazila	Agents	Registered Clients
Dhaka	5	25	43	869
Chittagong	7	10	46	80
Rajshahi	4	14	50	293
Sylhet	4	4	10	60
Khulna	3	3	3	40
Barisal	4	4	13	40
Rangpur	5	5	5	10
Total	32	65	170	1,392

Mercantile is contemplating how to take forward its strategy. Earlier it had pursued a license together with GP and has in place an agreement with GP. However, also sees the need to have more than one MNO partner and are pursuing other MNOs. Mercantile is also contemplating a possible shift in technology away from SMG to a new platform which may be given more functionality to users beyond IVR. Mercantile would like to scale up its program to some 1.5 million accounts during 2012 and feel that they would need to get to at least 2 million in order to be profitable.

Trust Bank Ñ Trust Bank began operations in 1999 and has 450,000 clients and of these 125,000 are from the army. Its main shareholder is the Army Welfare Trust and therefore has a unique profile compared to other banks in Bangladesh.

Trust Bank offers "Trust Mobile Money" a service under its Alternative Delivery Channel group in the bank. This service is offered over a platform called Genweb2 developed domestically by the TK Group in Bangladesh - a multi-business industrial conglomerate. So far Trust Bank has established "paypoints" at 70 of its branches and 329 agents across Bangladesh. These agents include airtime resellers from Citycell and Teletalk, plus some UISCs in rural areas. So far, Trust Bank has not been able establish agreements with MNOs to use their USSD channels and therefore relies on SMS and IVR to execute transactions.

Division	Districts	Upazila	Agents	Registered Clients
Dhaka	9	18	55	562
Chittagong	12	23	108	341
Rajshahi	6	7	27	32
Sylhet	2	9	23	78
Khulna	6	19	114	72
Barisal	1	1	1	0
Rangpur	1	1	1	19
Total	37	78	329	1,104

Management's preference has been to learn and take things gradually sensing a need to educate the market. One of the main objectives of Trust Bank is to consider the benefits to the armed services. Already with many of the Army accounts, Trust Bank aims to acquire more Navy and BDR (border guards) accounts in the future with the possibility of disbursing salaries into these accounts. Trust Bank aims to acquire 200,000 clients during 2012 with the goal of reaching 500,000 in another three years.

Annex 2: Bank International Remittance-Only Deployments

A number of banks only sought permission to use MFS for the purposes of foreign remittance cash out. These deployments have had limited impact on MFS development. Globally there is evidence that remittances over mobile are not effective as an early market building strategy and only develop once a wider ecosystem of agents and the greater use of mobile wallets is already in place. The Bangladesh MFS data is already showing this. Even though remittance-only deployments have been in the market the longest, the number of registered users and total transaction volumes are much higher among banks offering services beyond remittances. A shorter description of the remittance only deployments are below.

AB Bank Ñ Originally named Arab Bangladesh Bank, and now just AB Bank, has traditionally been a corporate bank with a recent new shift towards a larger retail presence. Sponsored by the Pacific Group, AB Bank has been a strong technology player and helped set-up the Cashlink switch. They have started their MFS with permission to offer international remittances. This system uses Citycell agents to cash out and makes a "push" notification to the recipient's mobile. Transactions are not yet controlled via the mobile phone. AB Bank is contemplating a more aggressive launch into MFS.

Dhaka Bank Ñ Dhaka Bank is a second generation bank with primarily a corporate clientele. They are diversifying to SME and retail banking; though this is relatively recent. The bank has a remittance unit offering a remittance service based on a license obtained back in 2009 offered in partnership with Banglalink. Dhaka Bank reports 594 registered users of the service and lists 1,786 agent locations mostly provided through Banglalink. After several years of operation it has processed eleven crores of inward foreign remittances. Moving ahead Dhaka Bank expresses interest in adding utility payments to their current remittance only MFS.

However, they do not yet have a specialized unit working on MFS. They express some concerns about the security of PINs, the low education level of clients, and remain conservative about the use of agents.

Eastern Bank Ñ This bank was formed subsequent to the closure of BCCI with the intervention of Bangladesh Bank to protect depositors. Following a period of government shareholding Eastern Bank has gradually diversified its shareholding base among financial institutions and former depositors. EBL has permission to offer "EBL Smart Remit" a remittance disbursement delivered in partnership with Banglalink and Robi. Eastern Bank reports 293 registered clients and a total agent network of 1,386 mostly provided by Banglalink. This falls under an Alternate Distribution Channel department which also manages internet, ATM, kiosks and bill pay machines. They have not found the remittance service to be attractive to customers because cash out is the only option. Eastern Bank is therefore looking to apply for a fuller license that would allow remittance recipients to use many other MFS services. Though they still wonder whether MFS can become profitable and their bank scrutinizes ROI before making investments. A long and uncertain gestation period might not be attractive. The near term goals are to acquire 150,000 clients in the next two years.

Southeast Bank Ñ SB was established in 1995. The major fields of activities include conventional banking, islamic banking, credit service, foreign trade and remittance service. The Bank has obtained approval from Bangladesh Bank for inward foreign remittances disbursement through GP Mobile Network Channel and launched a small scale service in June, 2011 but this has not processed many remittances by March of 2012.

Premier Bank Ñ Premier Bank presently can offer remittance cash out via 182 urban based GP service centers. Thus far the total volume of transactions has been low at Taka 0.01 crore. Premier does not feel that the present arrangement can go to a larger scale. To expand MFS, Premier feels that it may be best to establish a shared platform that multiple banks can use.

Annex 3: Four Large MNOs

Airtel Ñ Airtel is the largest MNO in India with roughly 29% market share and entered Bangladesh through an acquisition of Warid. Airtel has entered with the aim of being one of the two largest players in Bangladesh; though it started from a smaller base and today has 6.4 million connections. To expand Airtel will first invest in expanding its tower network for full national coverage and then following that to increase its subscriber base towards multi-fold expansion.

Airtel is a global company with 3 operations in Asia and 17 in Africa. And among these it has MFS already in twelve of its operations. Globally it is launching MFS under the brand name of Airtel Money; though what it offers under that brand may be quite different in different countries. For example the Airtel Money being advertised in India is a prepaid wallet which is not redeemable in cash from agents and therefore is not comparable with a mobile account in Bangladesh. Separate from Airtel Money, Airtel also has a new service in India offered in partnership with Axis Bank which serves as the account issuer.

In Bangladesh Airtel has a commercial agreement with DBBL. Airtel's preference is to continue to market the Airtel Money brand as a generic brand even if the underlying service in Bangladesh is different from what is offered under the same brand in India. Airtel expects to enter into commercial agreements with more banks. Airtel believes that a wide range of services will be possible with MFS in Bangladesh but that the two with the most potential are domestic remittances (P2P) and merchant payments.

Banglalink Ñ Under its marketing division, Banglalink has established an mCommerce group. Originally owned by Orascom of Egypt, Banglalink was recently sold to Vimpelcom a telecom conglomerate out of Russia. Globally Vimpelcom services 18 different markets in Russia, Central

Europe, East Asia and South Asia. Vimpelcom has prioritized efficiency, data and financial services as three priorities. And in three markets Vimpelcom affiliates already offer MFS.

Banglalink signed on early with Dhaka and Eastern Banks for international remittances. In 2011 it entered an agreement with DBBL and has just recently signed with BRAC Bank/bKash (post March 2012). It is in ongoing discussions with other banks about commercial partnerships. Having experienced the international remittances business for some time, they feel there are limits to this since recipients can only cash out. There is an essential need to add P2P and merchant pay for there to be a stronger appeal to users.

Banglalink feels that MNOs bring a lot to the MFS business including an existing and well known brand and a large distribution network. They also feel that many banks and regulators do not fully appreciate the cost and reputational risk of opening up a USSD channel for large volume of transactions or that this might cannibalize bandwidth otherwise used for the voice or data. Like other MNOs, Banglalink feels finding an understanding bank and building a trusting partnership are essential for the MFS business.

In addition to partnerships with banks, Banglalink also partners with Bangladesh Post to help provide the Postal Cash card and a mobile voucher payment service. These postal financial services leverage the post office's branch infrastructure while using Banglalink's mobile network to help facilitate transactions.

GrameenPhone (GP) was the first primarily foreign owned MNO to enter Bangladesh and the first to deliver a mass market voice and data service beyond urban areas. It holds 42% of connections in Bangladesh making it the largest MNO. It is owned by Telenor (56%), an arm of the Norwegian government, Grameen Telecommunications (34%) and the public (10%). Internationally the Telenor Group is operational in eleven countries and offers MFS in six. Telenor has also established a financial services team in its global office - a testament to the growing importance of MFS.

Telenor's bank-based EasyPaisa service in Pakistan is among the global leaders. (Pakistan has allowed three MNOs including Telenor to purchase

majority stakes in Microfinance Banks to offer MFS). EasyPaisa processes an estimated \$200 million per month through an agent network of 18,000 figures that are likely to rise. In Bangladesh GP has had significant aspirations for its financial service business and is among the first to offer bill pay in 2006 and later ticketing for trains, sports and lottery. GP has agreements with BRAC Bank/bKash and DBBL.

GP together with its parent Telenor Group has a broad vision for MFS. They see a large market for small scale payments. The GP view is that relationships with banks are still in early stages of negotiation and that the present agreements have not leveraged the cost advantages MNOs bring from their agent networks or MNO skills managing large customer volumes. GP does not see short-term profits in MFS but rather a long-term game where returns would take five years or more. GP's view is that it could partner with banks to offer MFS to some 25m subscribers over the next five years (a majority of their existing customer base). Their expectation is that small P2P domestic remittances would be the main MFS service initially.

Robi – Robi is the Bangladesh brand for the Axiata group out of Malaysia. Robi is the third largest provider with 20% market share. In Bangladesh under the marketing division Robi has established a separate MFS unit. Robi originally signed on with Eastern Bank for remittances, but have recently entered into an agreement with BRAC Bank/bKash and remains open to negotiating with other banks.

Globally the Axiata group has controlling interest in MNOs in five markets and strategic interests in two other markets. It offers MFS in three markets. Robi estimates that they have 150,000 airtime dealers in Bangladesh and of these one-quarter are suitable to be agents. The key Robi believes is attracting these agents into the business with attractive fees.

Robi sees potential in Bangladesh for both domestic P2P remittance and to use MFS for airtime top-up. Potentially, they could offer MFS to 5 million subscribers. Robi is however concerned with the present revenues into MFS are not sufficient to incentivize agents or MNOs. Robi expresses caution about making more substantial investments in MFS unless there is a clear pathway for them to share a larger portion of bank partners' revenue.

Annex: Banks and MNOs Contacted

Organization	Name	Designation	Mobile	Email
AB Bank	Nazmur Rahim	SVP and Head of Cards	+8801199883578	nrahim@abbank.com.bd
AB Bank	Reazul Islam*	EVP and Head of IT		reaz@abbank.com.bd
Airtel	Rubaba Dowla*	Chief Service Officer	+880161000000	Rubaba.dowla@bd.airtel.com
Banglalink	Prabir De	M Commerce Manager, Marketing	+8801916100389	pde@banglalinkgsm.com
Banglalink	Solaiman Alam*	Head of PR and Communication	+8801911310417	soalam@banglalinkgsm.com
Banglalink	Quazi Shareqez Zaman	M Commerce Executive Marketing	+8801926662739	qszman@banglalinkgsm.com
Bank Asia	Quazi Mortuza Ali*	Head ADC	+8801755597389	qmortuza@bankasia.com.bd
BRAC	Shameran Abed*		+8801729071548	shameran.a@brac.net
BRAC Bank	Nawed Iqbal	CTO	+8801713187690	Nawed.iqbal@bracbank.com
BRAC Bank	Md. Mamdudur Rashid	DMD		Mamdudur.rashid@bracbank.com
bKash	Kamal Quadir*	CEO	+8801713049386	kamal@bkash.com
bKash	Azmal Huda		+8801711505450	azmal@bkash.com
Robi	Barna*	VP	+8801819210925	Barna.ahmad@robi.com.bd
Dhaka Bank	Niaz Habib*	Addl. MD	+8801711521340	Niaz.habib@dhakabank.com.bd
Dhaka Bank	Azad Shamsi	EVP		Azad.shamsi@dhakabank.com.bd
Dhaka Bank	Syed Faisal Omar	VP		Faisal.omar@dhakabank.com.bd
Dhaka Bank	Khairuddin Ahmed	First Assistant VP		Khairuddin.ahmed@dhakabank.com.bd
Dutch Bangla Bank	AKM Shirin*	DMD	+8801711526885	akmshirin@dbbl.com.bd
Dutch Bangla Bank	Mir Mominul Huq	VP & Head Of Mobile Banking		huq.mir@dbbl.com.bd
Eastern Bank	Zahidul Haque*	Head of ADC	+8801713044246	
Eastern Bank	Omar Khandaker	IT Consultant	+8801714111637	omar@ebl-bd.com
Eastern Bank	S.M.A. Chowdhury	SEVP, Head of Operations		chowdhurysma@ebl-bd.com
GrameenPhone	Delwar Azad*	Head Financial Services	+8801711500361	azad.dh@grameenphone.c
Mercantile Bank	Farhad Malik*	VP & Head of Mobile Banking	+8801713145291	Farhad@mblbd.com
Mercantile Bank	Md. Rabbani	Senior Executive Officer	+8801712058780	rabbani@mblbd.com
Mercantile Bank	Rumana Tulee	Senior Executive Officer	+8801713364053	ratulee@mblbd.com
Premier Bank	Abu Haniff Khan	Addl. MD	+8801713484810	ahkhan@premierbankltd.com
Premier Bank	AKM Shamsuddin	DMD	+8801711595716	shamsuddin@premierbankltd.com
Premier Bank	Shafiuddin Ahmed	EVP	+8801713002047	shafiuddin@premierbankltd.com
Premier Bank	Md Mizanur Rahman*	FVP & Head of IT	+8801711593387	mizan@premierbankltd.com
Premier Bank	Majedur Rahman	MD	+8801730002787	majed@premierbankltd.com
Southeast Bank	Md A H Bhuiyan*		+8801711650097	Amir.hossain@southeastbank.com.bd
Southeast Bank	AKM Monirul Islam		+8801711590477	Monir@southeastbank.com.bd
Trust Bank	SM Akram Sayeed*	SVP	+8801730342483	sayeed@trustbanklimited.com
Trust Bank	M Moinus Samad Khan	AVP	+8801713145484	moin@trustbanklimited.com
Trust Bank	Ashfaqul Haq Tanim	Senior Principal Officer	+8801730320271	ashraqultanim@trustbanklimited.com
Trust Bank	Md Tasdiquzzoha	Principal Officer	+8801713145485	zoha@trustbanklimited.com

* Key contact point

Published by
F.M. Mokammel Huq, General Manager
Department of Printing and Publications
Bangladesh Bank, Head Office, Motijheel
Dhaka-1000, Bangladesh
Phone : 88-02-9530141
e-mail : mokammel.huq@bb.org.bd
Website: www.bb.org.bd

Printed by Sroust Advertising, Tel : 8356741, 01819-251898

DPP : 08-2012-150