DIGITAL FINANCIAL SERVICES SUPERVISION IN BANGLADESH

CASE STUDY
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EXECUTIVE SUMMARY

FinTech solutions and innovations in digital financial services (DFS) are gaining momentum in Bangladesh, boosting financial inclusion. In 2018, 50 percent of its population had access to formal financial services, an increase of 57 percent since 2013. Since 2010, the government has actively looked towards technology to reduce poverty and transform people’s lives in line with its Digital Bangladesh - Vision 2021 plan.

DFS innovations can rapidly expand financial access and inclusion, but also pose risks related to fraud, market abuses and financial stability. Regulatory frameworks thus need to strike a balance between fostering innovation, protecting consumers and addressing the potential for unintended consequences of technological disruption. They must also ensure the market is a level-playing field for all service providers to participate in the sector.

As the country’s central bank, among other functions, Bangladesh Bank promotes, regulates and ensures a secure and efficient payment system in the country. It now faces the challenge of identifying the optimal approaches and mechanisms that will allow innovations to be developed responsibly, while ensuring protection and security for consumers and providers.

International experience shows that while some regulators favor a ‘wait and see’ approach to observe how the market responds to product innovations before intervening, others opt for a more proactive ‘test and learn’ approach by allowing innovations within a specific context and on a case-by-case basis from the outset. Specific innovations are also becoming increasingly relevant to meet the need for cutting-edge solutions and to facilitate partnerships. Regulators across the world would benefit from sharing their learnings about the approaches to innovation that have worked successfully for them, to what extent, and under what conditions—especially as there is no-one-size-fits-all solution. It is also important to appreciate that these regulatory approaches are not mutually exclusive: a regulator may apply multiple approaches to different types of innovation under consideration. An ‘à la carte’ mindset is more likely to achieve success.

With a vibrant DFS market and a progressive central bank, Bangladesh has much to share with the rest of the world. This case study delves into the evidence-based benefits and limitations of Bangladesh Bank’s approach to regulating and supervising innovations in the DFS market.

AN ALL-TIME COLLABORATION MINDSET

Bangladesh Bank takes pride in adopting a concerted way of working with other regulators and government entities. For example, it has organized a promising series of high-level roundtable discussions and consultative working groups on interoperability as a practical application of this collaborative approach.

A MIX OF REGULATORY APPROACHES ENSURES A LEVEL PLAYING FIELD

Bangladesh Bank’s regulatory measures always reference actual market experience, which is part of its typical approach of what it describes as testing and learning by doing. An example of this is its development of e-KYC (know your customer) regulations and engagement with innovation facilitators. In late 2019, it created a Regulatory Innovation Office under the Payments System Department and is now also considering setting up regulatory sandboxes and RegTech solutions. By combining a mix of progressive regulatory approaches, Bangladesh Bank lays the foundation for a level playing field.
INTRODUCTION

Technology innovations are increasingly being leveraged to help solve today’s most pressing issues. This can be observed across a growing number of industries, from health care (MedTech and BioTech) to education (EdTech) and sustainable development (CleanTech). The financial sector is no exception. From payment processing and mobile wallets to cryptocurrencies, digital ID verification and financial services automation, FinTech\(^2\) has been a great catalyst of increased access to and use of formal financial services.

Although these innovations can be quantum leaps in the sector’s evolution, they also present many risks, such as fraud, the financing of illegal activities and cyber-attacks. Financial sector regulators are thus faced with the challenge of trying to achieve the right balance between enabling innovation and safeguarding consumer protection and financial stability.

As there is no one-size-fits-all solution, assessing and responding to FinTech activities necessarily depend on market context, a regulator’s capacity, and its existing instruments. However, the sharing of learnings and on-going market experiences from around the world allows for more informed decision-making.

AFI is committed to support regulators in adopting innovation-friendly approaches. This case study collects testimonies and learnings to benefit the broad industry. It presents the approach taken by Bangladesh Bank to regulate the increasing number of technology innovations by the financial sector and its use by consumers.

Chapter 1 introduces the financial inclusion landscape in Bangladesh to provide context for understanding how technology innovations develop. Chapter 2 discusses innovative regulatory approaches broadly, while Chapter 3 provides a closer look at the path Bangladesh Bank has taken to allow for innovations that scale. Finally, Chapter 4 discusses the central bank’s experience of responding to the impacts of the COVID-19 pandemic so far.

\(^2\) Defined as, organizations that combine innovative business models and technology to enable, enhance and disrupt financial services. See, As FinTech evolves, can financial services innovation be compliant? The emergence and impact of regulatory sandboxes in the United Kingdom and across Asia Pacific, Ernst & Young Advisory Services, 2017.
CHAPTER I.
THE LANDSCAPE OF
FINANCIAL INCLUSION
AND DFS INNOVATION
IN BANGLADESH

FINANCIAL INCLUSION OVERVIEW

Since the country’s independence in 1971 and the creation of Bangladesh Bank the same year, special efforts have been made to meet the needs of the underserved to ensure no one is left behind.

Thus, the country made the transition from being a low-income agrarian society in the 1970s to a lower middle-income one today.3. More recently, the rise in mobile financial services (MFS) has allowed the poorest sections of its population greater access to a range of financial services, including cash-in and money transfers, from regulated institutions.

This past decade has been particularly uplifting, with the country making great strides toward financial inclusion; the World Bank estimates that in 2017, 50 percent of adults had an account in their name with a full-service financial institution, a 56 percent increase on 2011.4 This increase is largely due to the introduction and expansion of Mobile Financial Services (MFS) since 2014, as seen in Figure 1. The government’s efforts to register SIM cards in 2015 has also contributed to the sustained growth in mobile money access and user registration.

The rapid expansion of agent banking introduced in 20135 and augmented in 2017 with the Prudential Guidelines for Agent Banking6 also boosted the number of registered full-fledged bank accounts.

Bangladesh Bank data (Figure 2) shows that MFS account registrations and daily transactions grew 20 percent and seven percent, respectively, between January 2019 and January 2020.

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3 Bangladesh: Bringing the Light into the Blind Spot, Member Series: Financial Inclusion Journey, Alliance for Financial Inclusion, 2018
5 PSD Circular No. 05: Guidelines on Agent Banking for the Banks, Dec 2013
6 BRPD Circular No. 14: Prudential Guidelines for Agent Banking Operation in Bangladesh, September 2017

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FIGURE 1: FINANCIAL INCLUSION AND ACCOUNT OWNERSHIP IN BANGLADESH

Source: Global Findex, World Bank, 2017

FIGURE 2: MOBILE FINANCIAL SERVICES UPTAKE AND USAGE, USD

Source: Bangladesh Bank data  Note: The dotted line refers to the secondary axis.
This growth may be partly attributed to the implementation of social safety net accounts which may have been used intermittently during the same period. The number of active MFS accounts, however, declined by one percent.

In addition to the regulatory and policy measures mentioned above, the following factors have also contributed to the surge in MFS account ownership. Bangladesh’s rapidly growing economy continues to see a concurrent rise in demand for financial services, which in turn has been matched by the sharp growth of mobile phone ownership. With 166 million Bangladeshis owning a mobile phone in 2019, or a 158 percent ownership rate among adults, mobile phones have catalyzed the creation of an ecosystem for the delivery of MFS products to the consumer. Bangladesh’s high population density also means that a large percentage of people live close to an access point for financial services. In 2018, an estimated 80 percent of the population lived within 1 km of an access point, and this number jumps to 95 percent for a 5 km radius.

THE GOVERNMENT’S PUSH TO MAKE DIGITAL WORK FOR FINANCIAL INCLUSION

The Government of Bangladesh has been actively pursuing technology as a way to reduce poverty and transform people’s lives. In 2009, it launched the long-term plan, Digital Bangladesh - Vision 2021(Digital Bangladesh) to promote the digitization of services, including banking and payments services. The following is a timeline of some of its key initiatives so far:

2010

> Payments systems. One of the pillars of Digital Bangladesh is a robust enabling infrastructure. A banking and payments systems modernization drive has been underway since early 2010. Major infrastructure was established, including the Automated Cheque Clearing System, Card Payment Switch and Real Time Gross Settlement System. Policymakers are now exploring an interoperable payments infrastructure.

> Social safety nets. In January 2010, Bangladesh Bank instructed retail banks to help open no-frills accounts worth BDT 10 (USD 0.1) for the ultra-poor, so they can be eligible for social safety net programs. These accounts are managed without any fees or minimum balance requirements to encourage participation. The digitization of government-to-person (G2P) programs has also helped increase the number of people with financial accounts. Digital G2Pis becoming omnipresent, with about 69 percent of the value of government payments being done digitally.

2015

> Digital payroll. The Government of Bangladesh has worked with 10 global buyers and 75 garment factories, including leading global brands H&M, Marks & Spencer, and Target, to digitize payrolls since 2015. Ninety percent of garment workers will be brought under the digital wage system by 2021 as part of the government push to build a cashless society. With the COVID-19 pandemic, it was announced that garment and export-oriented factories which pay their employees’ salaries digitally would qualify for government economic assistance. Government employees, even among banked workers across all sectors, have benefited from increased usage of digital payrolls, partly in response to COVID-19 restrictions.

2016 ONWARDS

> Digital identity. Smart National ID cards (NID) with built-in chips were introduced for 100 million people in Bangladesh. The cards are associated with a person’s name, photo, address, and parents’ name, and allow access to banking, besides containing details of their passport, driving license, trade licenses and tax payments.

> National Financial Inclusion Strategy (NFIS). Policymakers began drafting the country’s first NFIS as part of its commitments to AFI under the Maya Declaration. Through inter-ministerial policy coordination and multi-stakeholder consultations, Bangladesh Bank and the Ministry of Finance prepared a draft strategy. The government has appreciated the first draft and suggested some issues to address.
Prime goal of NFIS is to bring maximum number of people under the financial accounting system and arrange the financial benefits for them. The five-year strategy is being taken from 2021-2025 to improve the life and livelihood of people, particularly the poor by brining under all sorts of institutional financial services. The NFIS identifies women’s financial inclusion as a priority and following are the three core areas:

- **Universal access**: All adults should have an individual, full-service, safe and secure electronic bank account.
- **Proximity**: Distribution channels need to be within acceptable distance, in a secure environment and at reasonable charges.
- **Quality and affordability**: All households and businesses (especially low-income families and micro, small and medium enterprises (MSMEs)) must have access to a range of affordable financial products (credit, deposit and investment, insurance, and risk management products).

The financial inclusion goals of Digital Bangladesh are bolstered by the government’s Seventh Five-Year Plan FY2016-2020 and Bangladesh Bank’s Strategic Plan 2015-2019. A dedicated financial inclusion department within Bangladesh Bank has been established to promote and manage national financial inclusion programs.

**THE MARKET IS MATURING BUT YET TO REACH ITS FULL POTENTIAL**

Government agencies have greatly helped the financial sector grow and mature by expanding financial inclusion through strategic plans and policy guidelines. However, gender balance, innovative-use cases and full understanding of mobile financial services (MFS) have not developed in tandem so that more people are encouraged to use digital financial services and allow the market to reach its full potential.19

**THE GENDER GAP**

Bangladesh Bank is actively taking measures to address the gender gap. For instance, the Bank collects gender-disaggregated data on SME credit and savings20 and on account ownership and balance on a monthly basis.21 Collecting gender-disaggregated data on usage by and the needs of women customers has helped Bangladesh Bank to identify, design and assess policies that increase women’s financial inclusion.22 One initiative that has arisen from the data is that all banks must have a dedicated counter for women entrepreneurs.

However, the growth in account ownership since 2011 has not benefited all groups equally. Women are still less likely than men to have an account. Globally, 72 percent of men and 65 percent of women have an account, while in developing economies, the gender gap is 67 percent for men and 59 percent for women. Indeed, most developing economies have a gender gap in account ownership, though the size varies. In Bangladesh, Pakistan, and Turkey, for example, the gender gap is nearly 30 percentage points. Other developing economies with a double-digit gender gap include Morocco, Mozambique, Peru, Rwanda, and Zambia. Smaller gaps are found in such economies as Brazil and India.23

Another way that Bangladesh Bank and other government and non-government agencies are trying to reduce the gender gap is through various digital payroll programs. These programs have been designed with ready-made garment (RMG) factories in mind, in which women constitute the majority of the workforce.

Finally, the recently developed NFIS integrates a specific strategic goal with several specific targets to reduce the gender gap - in the form of quantitative gender-related targets and gender-focused research for financial literacy and policy design, as well as regulatory reforms to increase access to basic financial services for women.24

**FIGURE 3: GENDER GAPS ACROSS ASIA (2017)**

![Gender Gaps Across Asia (2017)](source: The Global Findex Database 2017; PHB Development Analysis)

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19 Digital Wages: Positive Impact for Women and Business - HerProject March 2020, Bill and Melinda Gates Foundation
20 Bridging the Gender Gap: Promoting Women’s Financial Inclusion: Tools and Guidance from the AFI Network, AFI, 2017
21 This information was obtained from stakeholder interviews conducted in March 2020.
22 Collecting and Using Gender-Disaggregated Data for Financial Policymaking, UNSGSA, 2020
23 The Global Findex Database 2007
24 National Financial Inclusion Strategy - Bangladesh (Draft)
DIGITAL SKILLS GAP

Digital readiness assessments show that the digital skills gap must be addressed to increase the market’s potential for DFS. Bangladesh has the right elements in place to promote the adoption of DFS, such as national identification cards, high mobile phone penetration rate, and financial numeracy, although people’s ability to send and receive messages (a proxy for the ability to read onscreen and manipulate phones) may limit the regular use of MFS.

The digital skills gap means a high percentage of adults resort to over-the-counter transactions (OTC), i.e., they use MFS through another person’s account, such as a mobile money agent’s personal account or the account of a relative, and do not have a registered account of their own. According to The Global Findex Database 2017, OTC transactions in Bangladesh comprised an estimated 70 percent of total transactions, even though they are officially not permitted. However, according to more recent informal estimates by DFS providers and Bangladesh Bank, OTC transactions are now thought to comprise less than 40 percent of total transactions. OTC being difficult to detect, there is no recent hard data to support this assumption.

Of the registered users in 2018, a significant number were letting accounts go dormant (10 percent), while another 15 percent limited their use to basic person-to-person (P2P) transfers. Closing the skills gap may help see an increase in advanced usage of MFS.

The need for additional use cases beyond P2P transfers: Although Bangladesh Bank permits a portfolio of first generation’ products, transaction patterns in Figure 5 shows an overwhelming dominance of cash-in / cash-out transactions (69 percent of all transactions by value in December 2019), followed by P2P transfers (24 percent). Salary disbursement, government payments, merchant payments, and utility bill payments are promisingly gaining ground, but to date, these still represent no more than 5 percent of the value of all transactions for the month of December 2019 in Bangladesh. As a basis for comparison, these types of transactions represent more than 15 percent of all transaction value in South Asia.

Considering that the vast majority of payments are still made in cash (94 percent by volume; 88 percent by value), there is high potential for growth in the MFS space in the near future. Merchant payments and e-commerce should become a priority for the sector. Innovative, second-generation financial products, such as digital credit and insurance, are also yet to be introduced. However, the market is evolving rapidly, and two MFS providers have taken the lead to pilot digital lending.

The competitive landscape may explain why more innovations and a broader suite of services have yet to be offered. Although the market presently has 14 MFS providers, two are dominant. BRAC Bank’s bKash and Dutch Bangla Bank’s Rocket lead the way with 80 percent and 19 percent market share, respectively (see, Box 1). Greater competition among MFS providers would potentially see the introduction of disruptive innovations beyond digital payment products, thus deepening financial inclusion.

Financial inclusion is also hindered by the lack of interoperability between MFS providers, an increase in which could boost competition by reducing barriers to entry, enabling innovation and supply diversification, and enhancing the performance of financial institutions, while giving the consumer greater freedom of choice. Regulators have completed the testing and pilot of an interoperability solution using National Payment Switch Bangladesh (NPSB), which will be scaled up in 2020.

25 Intermedia defines financial numeracy as the ability to read numerical place value and other key numeracy skills needed to complete a financial transaction on a mobile phone without assistance.
26 2018 Annual Report: Financial Inclusion in Bangladesh, Financial Inclusion Insights (FII), InterMedia, 2018
27 2017 Global Findex: Behind the Numbers on Bangladesh, Joep Roest, CGAP, 24 July 2018
28 This information was obtained from stakeholder interviews conducted in June 2020.
29 Intermedia, 2018 (Shown: Percentage of Bangladesh adults, N=6000)
30 Bangladesh Bank permits Cash-In, Cash-Out, Person to Person (P2P), Person to Business (P2B), Business to Person (B2P), Person to Government (P2G) and Government to Person (G2P) payments, online and e-commerce payments, loan disbursements, and vendor payments services through MFS domestically. However, local disbursements of inward foreign remittances through banking channels is permitted. Source: Bangladesh Bank
33 Mid-term Evaluation of SHIFT in SAARC Programme, 2019
34 The future of lending is here. And it is thanks to City Bank and bKash, The Daily Star, 22 July 2020
35 An Exploration of the Booming Mobile Banking Market in Bangladesh, Fintech Magazine Bangladesh, 19 March 2017
FIGURE 4: KEY INDICATORS OF READINESS TO ADOPT DIGITAL FINANCIAL SERVICES (2018)

Source: Intermedia, 2018 (Shown: Percentage of Bangladesh adults, N=6000)

FIGURE 5: TRANSACTION TRENDS ACROSS MOBILE FINANCIAL SERVICES (MFS) PRODUCTS BY VALUE, BANGLADESH COMPARED WITH SOUTH ASIA, DECEMBER 2019, %


FIGURE 6: VALUE OF TRANSACTIONS BY PRODUCT TYPE (IN MILLION USD)

Source: Bangladesh Bank Statistics Department, January 2016 - January 2020
As MFS evolves in Bangladesh, regulators need to take stock, improve their understanding of ground-breaking innovations, and issue guidelines to secure their development. The next chapter provides insights into the array of innovative regulatory approaches that have been tried and tested around the world, as a preface to the chapter after next on the collaborative approach taken by Bangladesh Bank to regulate innovation in the MFS market.

BOX 1: MFS MARKET SNAPSHOT

Following the introduction of guidelines by Bangladesh Bank in 2011, there are two models of MFS. Either the service is run entirely by a bank and is a product of the bank (the bank product model), or the service is run by a bank subsidiary in which the bank has at least a 51 percent share (the bank subsidiary model).

There are 14 banks providing MFS under the bank product model. Though 13 have failed to gain significant market share, Dutch Bangla Bank Ltd has taken 19 percent of the market with its Rocket brand launched in 2011. Being a bank product, Rocket has the advantage of using the bank’s branches, as well as agent banking points and ATMs, giving the service significant reach for salary disbursement.

The remaining 80 percent of market share belongs to the only bank subsidiary, bKash, introduced soon after Rocket in 2011. bKash is now a byword for any MFS transaction irrespective of provider. It pioneered merchant payments and incentives for the use of e-money. Its app is the most-downloaded free app in Bangladesh. With a customer base of 60.4 million, it processes eight million transactions daily.

The rapid expansion of Rocket and bKash has shaped the market’s development and led Bangladesh Bank to introduce in 2018 a regulation which stipulates that new license applications for the provision of MFS must be by a bank-led subsidiary, although previously licensed providers can continue to operate.

36 Distinction and definition of the MFS regulatory models and market leader assessment, as provided by Bangladesh Bank.
CHAPTER II. EXPLORING CREATIVE APPROACHES TO REGULATING INNOVATION

Regulators around the world appreciate the difficulty in deciding whether to intervene in the market for innovative services and products. Although FinTech solutions are generally sensible, there is no indication at the outset whether a proposed market solution will be able to withstand large volumes, or whether its consumer data protection systems are reliable. To protect themselves from these types of risks, most regulators produce a thorough regulatory framework to prevent any system drift.

While they provide a protective shield, these regulatory frameworks are often considered too restrictive by financial services providers. According to PricewaterhouseCoopers (PwC)’s 2019 Global FinTech Survey, regulation is one of the top three challenges for FinTech firms, especially as it may limit their ability to implement the right solutions. Aware of the rising demand for more testing and learning, some regulators have shed their risk-adverse nature to experiment with innovations. The following section describes the rationale of such a regulatory approach and its instruments, as well as the benefits and challenges.

“WAIT AND SEE”

This approach allows new market entrants, or products and business models, to develop with no immediate regulatory intervention. In an observer role, the regulator actively monitors the usability and risks of an innovation while seeking to improve its own technical expertise such as through peer learning programs, for example. This allows for a better understanding and assessment of market developments, and the ability of the regulator to gather relevant data to inform its decision-making processes.

The “wait and see” approach is well suited to regulatory bodies of limited capacity or when there is regulatory overlap. However, it is recommended that a more proactive regulatory approach is adopted once the new entrants, products or business models begin to establish themselves, in order to address risks that have been identified or have materialized.

“TEST AND LEARN”

Alternatively, regulators may opt for a more proactive approach by allowing innovations to take place in a specific context and on a case-by-case basis. Concretely, a regulator can dispense with particular rules for new firms or new activities; Letters of no objection, waivers, exemptions or restricted authorization are all regulatory tools that support a “test and learn” approach.

The flexibility of the “test and learn” model allows regulators to observe and understand the risks and appetite for innovation while providing them with sufficient data and experience to create relevant regulatory guidelines. However, giving such exemptions can become labor-intensive, and granting privileges makes it challenging to maintain a level playing field.

INNOVATION FACILITATORS

More recently, regulators have turned to innovation facilitators for deeper learning and experimentation, with the objective of aligning market rules accordingly and mitigating risks.

There are three types of innovation facilitators:

INNOVATION OFFICES / HUBS assist new market entrants such as FinTech firms and start-ups to navigate the regulatory system and its laws. Innovation offices allow the regulator to “engage with, and provide regulatory clarification to, financial services providers that seek to offer innovative products and services”.

They offer a dedicated point of contact to DFS providers and a forum for discussion and collaboration. They also facilitate regulator-innovator engagement and mutual learning to inform policy development. Innovation offices can be accessed via a dedicated phone line, an email address, a website or a dedicated case officer. They are commonplace in developed markets but are only starting to emerge in the developing markets of Africa and Asia. Bangladesh Bank created an Innovation Office in 2019. (This initiative is detailed in the next chapter.)

37 Distinction and definition of the MFS regulatory models and market leader assessment, as provided by Bangladesh Bank.

Regulatory sandboxes can directly promote financial inclusion (e.g. inclusion-linked sandboxes in Bahrain, Malaysia and Sierra Leone) and support the development of regulatory enablers of financial inclusion (e.g. thematic sandboxes in Thailand, Japan and Abu Dhabi). Global interest in sandboxes is rising with applications in over 50 jurisdictions. However, regulators should keep in mind that although sandboxes can help facilitate dialogue between regulators and providers and inform long-term policy making, their value is context-specific. Their risk and benefits are speculative due to the absence of hard long-term data from successful testing. Besides, developing a regulatory sandbox program can be highly resource intensive and costly.

RegTech is the third type of innovation facilitator. RegTech applications use a diverse range of technologies (e.g. digital identity, big data, application programming interfaces, distributed ledger technology, artificial intelligence, machine learning and cloud computing) to solve regulatory and compliance requirements more effectively and efficiently”. In doing so, RegTech can encourage financial innovation, market improvements and financial inclusion. As with regulatory sandboxes, there are different types of RegTech:

> RegTech applications that help financial providers meet their compliance obligations; also called, CompTech. These identify and track changes in regulatory requirements and automatically monitor compliance levels. They can also improve an institution’s risk management by using advanced data analytics and improve identity management and control with due diligence and know your customer (KYC) procedures, and anti-money laundering (AML) and fraud detection.

> RegTech applications that help supervisory and monitoring functions; also called SupTech. These format data that is input into them according to supervisory specifications and send the data to a central database. Alternatively, they can automatically “pull” raw, non-standardized, business data from the servers of DFS providers.

> RegTech applications that re-shape current regulatory processes and systems.

Ultimately, all types of innovation facilitators aim to pave the way for new laws and regulatory reform, allowing for both incremental and wholesale changes of policy frameworks overtime.

Regulators have much to learn from one another about the extent to which each approach to innovation works and under what conditions. The sharing of these learnings becomes more important upon realizing that there is no one-size-fits-all solution. Regulatory capacity, market development, existing regulatory frameworks, etc., are all factors that can influence the success or failure of any approach.

One other important consideration is that these approaches are incremental in terms of regulatory involvement but are not mutually exclusive: a regulator may want to apply different approaches to different innovations under consideration. An ‘à la carte’ mindset is more likely to achieve success.

In this regard, Bangladesh Bank has experience of navigating both the ‘wait and see’ and ‘test and learn’ regulatory approaches. It has done this while using innovation facilitators to build an increasingly comprehensive regulatory framework for DFS innovations. The central bank set up its FinTech facilitation office in 2019 and is in ongoing discussions with stakeholders on regulatory sandboxes and RegTech.

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39 Ivo Jenik and Kate Lauer, Regulatory Sandboxes and Financial Inclusion, CGAP Working Paper, October 2017
41 Institute of International Finance (IIF) March 2016, Regtech in Financial Services: Technology Solutions for Compliance and Reporting
Bangladesh Bank continues to promote financial inclusion in line with Digital Bangladesh -Vision 2021, and to meet consumer demand projected by the banking and FinTech industries. This demand changes with developments in technology, market competition and government policy. Bangladesh Bank responds to this demand with characteristic collaboration across government ministries and by facilitating communication with the private sector.

**BANGLADESH BANK’S REGULATORY PURVIEW CALLS FOR A COLLABORATIVE APPROACH**

Bangladesh Bank has a mandate to regulate banks and non-banking financial institutions, mobile financial services (MFS) providers, payments system operators (PSOs), payment service providers (PSPs) and agent banking providers. Because this mandate does not include microfinance institutions, which are overseen by the Microcredit Regulatory Authority, or mobile network operators and postal services, which fall under the purview of the Telecommunication Regulatory Commission, Bangladesh Bank adopts a concerted way of working with other regulators and government entities. The development of the National Financial Inclusion Strategy (NFIS) is an excellent example of how it works hand-in-hand with ministries, other regulators and private sector companies to define a comprehensive and empowering policy.

Within Bangladesh Bank, several departments are involved in the implementation of financial inclusion activities, ensuring the monitoring of market trends and consumer behavior, analyzing transaction patterns and

**FIGURE 7: BANGLADESH BANK COLLABORATION SCOPE**

Source: PHB Development
providing support for policy implementation. They include, among others, the Financial Inclusion Department, Payments Systems Department, and the Banking Regulation and Policy Department. Collaboration among departments is necessary to ensure comprehensive regulatory frameworks and coherent supervision and oversight mechanisms can be established.

**FOSTERING INTEROPERABILITY: A PRACTICAL APPLICATION OF BANGLADESH BANK’S COLLABORATIVE APPROACH**

The market for MFS has blossomed in Bangladesh with more banks and providers now offering a basket of products to more than 94.78 million active customers. In this large and competitive MFS market, FinTech firms, PSPs and other participants have traditionally operated within their own “walled gardens”. Some MFS providers have developed interconnectivity for functionality between wallets and their sponsoring banks’ accounts, but this is still limited from a consumer perspective, being done by providers mostly to differentiate themselves from the competition, rather than as a market enabling initiative.

Having identified some of these obstacles Bangladesh Bank convened a series of high-level roundtable discussions and consultative working groups beginning in 2017 to identify a way forward.

It was revealed that Bangladesh faced challenges to interoperability in common with other markets, including a lack of clear definition of interoperability and its benefits for PSPs; mistrust among competitors; lack of understanding of the technical and commercial models for interoperability; and, a lack of an enabling regulatory environment for interoperability.

The roundtable discussions were led by Bangladesh Bank, which had tried to convince all participants that interoperability would be a win-win for all. Despite incremental steps and learnings, only a few providers agreed to join the interoperability platform, and significant steps have not yet been taken towards a universal scheme. This could be the result of an insufficient focus on the underlying business agreement and governance of the system.

A CGAP study on interoperability in 20 markets has found that the focus of most countries is on technical interconnectivity, i.e. assessing and designing a platform. Insufficient attention is given to the operational elements of business agreements and governance to form the basis of a universal scheme, the development of which is needed to create lasting value. The lack of a focus on governance and business agreements may have hindered the scalability of interoperable transactions in many countries.

In short, interconnectivity and interoperability are fundamentally different. In Bangladesh, BRAC Bank established interconnectivity with a bKash wallet; bKash has bilateral agreements for connectivity with 16 banks. Similarly, Rocket has bilateral agreements with two banks. Although the functionality is similar for customers, the governance and business terms of each of these agreements varies and excludes dozens of other banks. To partly address this concern, Bangladesh Bank has finalized its policy on interoperability to promote a system to connect competitive banks, MFS providers and other Payment Services Providers (PSP) while protecting and empowering customers of these services. By mandating interconnection, Bangladesh Bank will further support the development of business models to promote co-opetition in the industry in the way it has done with National Payment Switch Bangladesh (NPSB).

In creating the structure of business agreements and policies to promote interoperability, actual customer-use cases are a prime consideration. For example, in Bangladesh, OTC transactions are a significant use case of agent-based MFS because consumers are reluctant to open an account to avoid being subject to KYC compliance for such transactions.

Bangladesh Bank has addressed such considerations in policy on interoperability. Preliminary interoperability trials have been conducted with three banks and three MFS providers but industry-wide platform testing has been interrupted by the pandemic. The first phase of interoperability was projected to be implemented by October 2020. Bangladesh Bank continues to promote

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42  Bangladesh Bank Mobile Financial Services (MFS) comparative summary statement of January 2020 and February 2020
43  Mid-Term Evaluation: UNCDF Shaping Inclusive Finance Transformations (SHIFT) in SAARC August 2019
45  Mid-Term Evaluation: UNCDF Shaping Inclusive Finance Transformations (SHIFT) in SAARC August 2019
47  This information was obtained from stakeholder interviews conducted in June 2020
48  This approach towards interoperability has yielded results in other forms of electronic payments, such as card-based transactions, specifically ATM and POS. Limited transactions (withdrawal, balance enquiry and mini statement) can be settled using NPSB. As of October 2018, 50 banks were interoperable for POS transactions and 19 were interconnected for internet banking fund transfer transactions.
FINDING THE RIGHT MODEL OF MFS INTEROPERABILITY WITH A TEST AND LEARN MINDSET

MFS is a solution to financial exclusion. Prior to 2011, several private-sector MFS initiatives in Bangladesh arose from market demand. These attempted to make use of the existing financial infrastructure to cater for the country’s large unserved consumer demographic. As Bangladesh Bank then did not have experience in regulating MFS, it allowed the market to develop without imposing immediate regulatory requirements.

In 2011, to support the market, Bangladesh Bank issued its guidelines on MFS. Soon after, providers such as DBBL and BRAC Bank/bKash introduced MFS products. Bangladesh Bank introduced MFS regulations in 2018, in response to further market developments. These imposed a bank-led model on the sector, in that bank subsidiaries were allowed to conduct mobile financial services (MFS) in the country. However, scheduled commercial banks that are already in MFS operation are permitted to continue with the existing license or may form a subsidiary. An MFS subsidiary of a bank would

FIGURE 8: REGULATORY TIMELINE OF MFS IN BANGLADESH

Source: Bangladesh Bank data  *The list of market and regulatory developments presented is not exhaustive and shows the most important developments of the past 10 years.
have to demonstrate 51 percent bank ownership, thus allowing a window of opportunity for non-banks to be active partners in implementing MFS, even though banks remained the legal providers of these services. While MNOs are not allowed to be a partner, the parent concern of an MNO can own minority stake in a subsidiary.

With hindsight, Bangladesh Bank is now primed for the future development of MFS. “(A)s a regulato we needed trials and errors to know how to approach this new market. It has been a learning experience for both the regulator and market players. After a few years, we feel more confident as we understand better how the market will react in response to a new policy, and we are now more future oriented”.

A ‘TEST AND LEARN’ APPROACH TO ELECTRONIC -KYC SHAPES REGULATORY RESPONSE

Establishing an efficient and practical means to conduct customer due diligence and capture documents has long been a barrier to financial inclusion. Recognizing the potential to implement technology to support electronic KYC (e-KYC) protocol, the Bangladesh Financial Intelligence Unit (BFIU) released guidelines in January 2020 outlining how to implement e-KYC and mandating that all institutions regulated by Bangladesh Bank, including banks, NBFIs, capital market intermediaries, mobile and digital financial services, payments providers and FinTech firms, are compliant with e-KYC norms by December 2020.

The process of establishing e-KYC protocol has been in discussion since 2016. A multi-agency working group looked into different approaches to implement e-KYC on a case-by-case basis. The working group, led by the Financial Inclusion Department, includes BFIU and other relevant departments of Bangladesh Bank. This type of development is good for promoting collaboration between departments that are involved in anti-money laundering (AML) and combating the financing of terrorism (CFT).

By 2019, Bangladesh Bank was ready to test assumptions about the utility and functionality of e-KYC. The World Bank-supported pilot project was conducted in 50 locations across 33 districts, linking 16 banks and two MFS operators and anon-bank financial institution (NBI) via an application programming interface (API) to the database of the Office of the Election Commission. Customers could now open an account by completing a digital form, submitting a photo of themselves and their national identity card. Using biometrics, facial recognition technologies and multi-lingual optical character recognition (English and Bangla), the pilot project assessed how e-KYC could be implemented and how to simplify KYC requirements and shorten the time required for customer onboarding. In general terms, the timeline for opening an account is estimated to have been reduced from between three and seven days to just five minutes.

Nevertheless, as with any new technology there are challenges, such as when the photograph of the identity card is unclear and a facial recognition match is not confirmed. In such scenarios, biometric data can be used. According to BFIU guidelines, operators may also introduce voice recognition or iris matching, provided that the infrastructure exists to support such methods and are approved by BFIU. On rare occasions, customers may need to present additional identification.

As the e-KYC system is intended to be universal, there are provisions for two tiered classifications: simplified e-KYC and regular e-KYC.

1. Simplified e-KYC allows banks to offer deposits and withdrawals up to a limit of BDT 100,000 and term deposits of up to BDT 1 million. The limit for insurance premiums has been set at BDT 250,000, and for stock market investment at BDT 1.5 million.

2. To exceed these limits, customers must complete regular e-KYC, which involves the submission of source of income and national identity documents during account opening which can also be done via e-KYC, provided the financial institution has the necessary platform to enable it.

All e-KYC accounts are opened through a process of electronic sanctions screening for politically exposed persons (PEPs) and across the United Nations Security Council Resolutions database, with reporting entities required to follow their own due diligence with respect to AML/CFT.

49 PHB interviews with Bangladesh Bank officials, April 2020
50 Editors, Bangladesh Introduces e-KYC for All Financial Services Firms, Regulation Asia, 14 January 2020
51 Guidelines on e-KYC - BFID Circular-25
EXPLORING INNOVATION FACILITATORS

FOSTERING COMMUNICATION THROUGH THE REGULATORY FINTECH FACILITATION OFFICE

In order to foster better communication, the Regulatory FinTech Facilitation Office (RFFO) was established within the Payments System Department in late 2019 to foster innovation in the sector and refine how it is approached by Bangladesh Bank.

The primary purpose of RFFO\(^\text{52}\) is to have a deeper understanding of various FinTech products, their interaction with the financial sector and their implications on the financial system.

Before considering a no-objection certificate (NoC) or granting a license, RFFO will closely engage with the FinTech service provider for an appropriate regulatory response. It then re-aligns its regulation and supervision in response to the changed market conditions or suggests changes required of the FinTech provider instead.

In brief, the process involves RFFO discussing, fine tuning, and assisting a FinTech provider in implementing a product innovation and adjusting regulatory requirements to suit, after which a pilot test is run for three months to see if the product meet its goals.

With the experience of a successful pilot test, an appropriate framework may be introduced via a regulatory sandbox or an innovation hub, within a well-defined market space and duration, during which Bangladesh Bank provides the requisite regulatory support to increase efficiency, manage risks and create new financial inclusion opportunities for consumers.

The services of RFFO are not limited to new entrants to the market. Incumbent providers such as banks and other regulated entities that collaborate with FinTech service providers to improve their customer experience and operational ability will also interact with RFFO in areas such as payments, data analytics, and risk management.

MAKING HEADWAY TOWARDS A REGULATORY SANDBOX

As RFFO is a coordinating and administrative hub to support enabling policies that promote innovation, the development of a framework for a regulatory sandbox supports its goals.

The regulatory sandbox goes beyond the ‘wait and see’ and ‘test and learn’ approaches and meets six key characteristics\(^\text{53}\) for Bangladesh Bank to support digital innovation:

> **Structured:** There is a process to define, address and promote innovation in the form of a suitable policy instrument, circular or notification
> **Permanent:** The underlying policies give the sandbox a permanent guiding framework to determine qualified participants, requirements, and parameters
> **Objective-driven:** The sandbox implementation is driven by clearly defined objectives and aligned with participant activity
> **Open access:** Transparent and minimal access qualifications
> **Parametrized test:** Provides a safe environment for testing
> **Mutual learning:** Frequent and candid dialogue between innovators and regulators is embedded in the process

These policy elements already address many industry concerns and the Innovation Office is further considering providing a platform hosting environment. This infrastructure would support innovators to first prove concepts to the regulator, without making significant investments prior to approval, to then offer services commercially.

SUPERVISION AND REGTECH

An increased number and variety of innovators will inevitably challenge the ability of Bangladesh Bank to supervise the market. There are currently several layers of supervision and oversight to mitigate the risks associated with MFS, especially those related to consumer funds safety and fraud identification, financial liquidity requirements for e-money. While supervision includes activities to ensure compliance with regulatory requirements, oversight focuses on analyzing key indicators of MFS to assess the relevance of regulatory requirements and propose adjustments.\(^\text{54}\)

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\(^{52}\) As described by Bangladesh Bank officials, 9 August 2020

\(^{53}\) UNCDF presentation on Regulatory Sandbox delivered to Bank of the Lao PDR DFS Working Group, 21 Sept 2018

\(^{54}\) AFI Mobile Financial Services Working Group, Supervision, Oversight of MFS, Alliance for Financial Inclusion, 2014
Bangladesh Bank has its own offsite supervisory tools known as Rationalized Input Template (RIT) through which banks, MFS providers, PSP and PSO report on a monthly basis. To comply with these supervisory requirements, MFS providers submit to Bangladesh Bank their mobile money account opening and reconciliation report, transaction data (including inward foreign remittances, P2P, B2P, P2B, B2B, etc.), as well as agent and distributor transaction data. Agent banking providers also need to report their transaction-related information on a monthly basis, as well as provide gender-disaggregated data of accounts, balances and the geographical dispersion of account holders on a quarterly basis.

But more support with advanced data analytics and even dashboarding is required to reap the value from an increasing volume, velocity and variety of data. When supervisory data is overlaid on GIS mapping systems, there are clear applications for financial inclusion monitoring as well.

This innovative environment supported by the Innovation Office will see more providers and services coming online than ever before. The product mix will create new use cases that support customers with digital credit, P2P lending and micro-insurance coverage. Customer acquisition and experience will be enhanced by the accelerated result of e-KYC and the demand created by interoperable systems.

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**FIGURE 9: BANGLADESH BANK; LAYERS OF SUPERVISION AND OVERSIGHT OF MFS**

55 Stakeholder consultation with Bangladesh Bank, August 2020.
CHAPTER IV: HOW BANGLADESH BANK HAS RESPONDED TO THE COVID-19 PANDEMIC

The COVID-19 pandemic has had severe consequences on national economies. The World Bank estimates that COVID-19 is likely to cause global poverty to increase for the first time since 1998, putting some 50 million people below the line.\textsuperscript{56}

The Government of Bangladesh and Bangladesh Bank have worked hand-in-hand to offer appropriate measures to overcome the impact of the pandemic. Bangladesh Bank with its policy and infrastructure support engaged four MFS providers to quickly and efficiently disburse Govt. cash assistance and soft loan support for Export Oriented Industries worker salaries. Three MFS providers Rocket, Rupali Surecash, bkash along with Nagad were entrusted with the responsibility.

Bangladesh Bank has provided an interim No Objection Certificate to Nagad a digital payment service of Bangladesh Post Office on March 15, 2020, which is now under consideration of license. The country went under complete lockdown from 26th March while the cash assistance and salary disbursement began from the end of April 2020. The mobile money market went downward during April. However, with the Govt. assistances pouring in, it quickly turned back right from the following months. The customer base increased as well as the number of active clients. As well as a close collaboration between banking and MFS sector has taken place where bank to MFS, card to MFs and vice versa transaction has got a momentum.

Cash in, Cash out and p2p surged as well as merchant payment (Mostly e-commerce) and bill payments. Most of the uptake was observed for merchant payments and bill payments use case. As we can see from the below graph, even after the lockdown was lifted from June, the total market size has stayed at a higher level than March 2020.

\textsuperscript{56} Daniel Gerszon Mahler Christoph Lakner. Andres Castaneda Aguilarhaoyu Wu, The Impact of COVID-19 (Coronavirus) on global poverty: Why Sub-Saharan Africa might be the region hardest hit.
1. Advocacy: Bangladesh Bank has called on the government to consider the provision of MFS as an emergency service during the crisis, along with health and law enforcement services. Bangladesh Bank’s objective has been to maintain uninterrupted services so that low-income earners could receive their salaries and financial support from the government, as need be. Concretely, this has meant mobilizing the MFS providers’ employees, distributors, employees of the distributors and agents so that the agent points are kept operational during the pandemic.

2. Facilitation: Bangladesh Bank issued a directive on special waivers on March 19, 2020 to facilitate the use of MFS:

- Cash-out fees: Bangladesh Bank instructed MFS providers to waive cash-out fees for transactions of less than BDT 1,000 (< USD 11.8) a day
- P2P: Transaction limits have been raised and charges removed for select transactions

> Monthly transaction limits for merchant payments have been raised for purchasing essential goods (from BDT 75,000 to BDT 200,000 and charges waived for purchases of medicine and other essential goods using MFS and debit/credit cards.

3. Incentives for account opening: On April 4, 2020, authorities reinforced their commitment to digital payroll systems by announcing that financial support packages for the pandemic would only be available to garment and export-oriented factories that pay their employees’ salaries digitally. In two weeks, 1.92 million additional accounts had been opened.

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57 BB announces special waivers to tackle coronavirus, The Independent, 21 March 2020
58 Brian Muthiora, Mobile money recommendations to central banks in response to COVID-19, GSMA, April 2020
59 Bangladesh Bank asks authorities to declare MFS as emergency service, The Daily Star, 29 April 2020
60 MFS booster – 19.20 lakh accounts opened so far! Apparel Resources News-Desk, 20 April 2020

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FIGURE 10: BANGLADESH BANK’S COVID-19 RESPONSE

**SUPPORT ECOSYSTEM**

BB directed MFS providers to ensure cash supply at their agents.

**ADVOCATE**

BB requested GoB to consider MFS as an emergency service during the pandemic.

**FACILITATE**

BB announced special waivers
- No charges using MFS for essential goods (P2B)
- No charges for P2P and cashouts, 10 USD/day
- Transaction limits raised for P2P, P2B, NFC and card transactions

**INCENTIVIZE**

BB and GoB’s stimuli packages to be availed only to garments and export-oriented factories paying their employees’ salary digitally.

Source: PHB Development
4. Support for MFS ecosystem development:

To support the government initiative to provide BDT 2,500 to five million families via mobile banking, Bangladesh Bank has directed MFS providers to ensure adequate cash supply at their agents.\textsuperscript{61} While this did not prevent an overall decrease in MFS transactions (Figure 9), the number of active e-wallets rose by five percent in April 2020, driven mainly by ready-made garment factory worker registrations for digital payroll.

Although the number of P2P transactions stayed relatively stable, cash-in and cash-out transactions, traditionally the bulk of MFS, were drastically reduced between December 2019 and April 2020 by 39 percent and 40 percent, respectively. A similar decrease occurred with merchant payments in this period. However, the push for digital payroll and digital disbursement of government aid programs led to higher MFS usage for salary disbursement and government payments in July 2020 and this buoyed the transactions for P2P (and cash-in and cash-out) by 60% from April to September 2020. There also appears to be a correlation between MFS bill payment and the pandemic, with sharp increase in January, February and March 2020 and then more than 340% increase in utility payment between April and September 2020. Similarly merchant payments have been accelerated since April increasing more than 450% in September.

\textsuperscript{61} BB directs MFS providers to ensure cash supply, Daily Bangladesh, 14 May 2020
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DIGITAL FINANCIAL SERVICES SUPERVISION IN BANGLADESH