

Roksana Akter

Foreign Exchange Policy
Department,
Bangladesh Bank, Head office,
Dhaka

Adrita Priyodarshini

Department of International
Business, University of Dhaka

Suborna Barua

Department of International
Business, University of Dhaka
Dhaka, Bangladesh

Keywords

Credit Facility, Digital Finance,
FinTech, MFS, Micro, MSMEs.

JEL

E51, E52, E58, G21

Manuscript number

JFMG-202106-00026

Received: 2 June 2021

Accepted: 29 September 2021

Published online: 21 December 2021

Published in Print: 28 December 2021

© Bangladesh Institute of Capital Market 2021

Empowering Small Businesses with Financial Technology: The Road Less Travelled

Abstract

Financial services remain untapped by most of the small business owners in Bangladesh. This limited access to mobile financial services and FinTech presents a business opportunity for the FinTech startups in the market. TallyKhata and Upayare digital financial services platforms visualizing to capture the untapped sector by becoming one of the first movers in the industry. This article has studied the cases of TallyKhata and Upay in empowering small businesses in Bangladesh through the services that have made business transactions and credit management hassle-free.

Cite as: Akter, R., Priyodarshini, A. & Barua, S. (2021). Empowering Small Businesses with Financial Technology: The Road Less Travelled. *Journal of Financial Markets and Governance*, 1(1), 101- 122. <https://doi.org/10.54728/2112211640063460>

1. Introduction

Bangladesh has experienced more than 6.5% real GDP growth on average over the last 12 years, with a remarkable 8% growth in 2018-19. There is no doubt that one of the important catalysts for this growth is inclusive development approaches, which embrace various initiatives for inclusive financing. Currently, regulated financial institutions are active in financial inclusion initiatives and strategies. Inclusive financing initiatives that provide credit and other financial services to the majority of small, marginal, and tenant farmers, cottage, micro, small, and medium enterprises (CMSMEs), and

other financially excluded groups/activities have contributed to improved macro-financial stability (National Financial Inclusion Strategy, Ministry of Finance, 2021).

Some of the reasons for financial exclusion in Bangladesh are low incomes, lack of financial awareness and education, social exclusion, the distance from formal and semi-formal financial institutions (FI), complicated documentation requirements and procedures, unsuitable and costly products and inconvenient delivery mechanisms, unfriendly staff attitudes, and other factors that preclude the inclusion of specific groups. Despite such a scenario,

access to financial services in Bangladesh has seen tremendous growth. Rapid changes in infrastructural changes have lowered the cost of financial institutions' expansion and touchpoints by Mobile Financial Services (MFS) are increasing

due to digital network connectivity enrichment. To portray the financial services scenario in Bangladesh, the following table shows the position of Bangladesh using 2017 Global Financial Inclusion (Global Findex) data.

Table 1: Comparative Picture of Financial inclusion of Bangladesh and South Asia

Account (% age 15+)		South Asia
All adults	50.0	69.6
Women	35.8	64.1
Adults belonging to the poorest 40%	40.1	65.6
Young adults (% ages 15 -24)	41.0	60.1
Adults living in rural areas	49.9	69.2
Mobile money account (% age 15+)		
All adults	21.2	4.2
Savings in the past year (% age 15+)		
Saved at a financial institution (FI)	9.9	17.2
Credit in the past year (% age 15+)		
Borrowed from a FI	9.1	6.6

Source: National Financial Inclusion Strategy, 2021 (Data based on the Global Findex Database 2017, April 2018, World Bank Group)

The table also demonstrate that, even though Bangladesh has experienced recent growth; it is falling behind the South Asian average in most of the indicators of financial inclusion. However, a promising point is that in the "Mobile Money Account" indicator, Bangladesh has achieved a noticeable progress compared to the South Asian average.

The robust growth of the mobile ecosystem in South Asia, including Bangladesh, is currently playing an important role in the rapidly rising number of engagements of financial inclusion (Arslanian and Fischer, 2019). Even though digital services, especially mobiles, have allowed an easy bridge to fill in the gap of physical access to financial services, such services are facing problems like lack of basic connectivity, financial literacy and social

awareness (Aziz and Naima, 2021). According to Khatun and Tamanna (2020), FinTech seems more convenient and connectable when it is easy to understand, and when users trust the reliability and accuracy of new technology.

2. Role of SME Sector in Bangladesh

The Micro, Small and Medium Enterprise (MSME) sector has always carried well-noted importance in being considered as an instrument for economic development and is aligned to achieving the Millennium Development Goals (MDGs) by reducing extreme poverty and hunger, improving gender equality, and enhancing women empowerment. Since MSME is labor-intensive with a short gestation period, it is very important to increase national income. Other countries in South

Asia have also focused on the due importance of SMEs and named them “employment generating machines” by pressing on SME development for higher economic growth and narrowing the gap between income inequality and poverty alleviation. The present government of Bangladesh has emphasized the development of the SME sector, considering it as “the driving force for industrialization” (Bangladesh Bank).

The International Monetary Fund (IMF) Country Report (2012) indicated that SMEs in Bangladesh accounted for more than 99% of private-sector industrial establishments and created job opportunities for 70%–80% of the nonagricultural labor force. Because of the importance of SMEs to the Bangladesh economy, they can make a significant contribution to reducing poverty. The estimated number of SMEs in Bangladesh varies from 6 million (an estimate from the ADB) to the 3.3 million registered SMEs in the country. SMEs make up 25% of the total labor force, 80% of industry employment, and 90% of all enterprises in Bangladesh (Giesen and Lincing, 2006).

The contribution of SMEs to GDP is almost 21% in Bangladesh. (MIDAS, 2009, Women Entrepreneurs in SMEs: Bangladesh Perspective, SME Foundation). In some countries, the rate can be much higher. This depicts that the potential for SMEs to drive the economic engine of Bangladesh is still far from being fully exploited.

Another study by Alauddin and Chowdhury in 2015 also refers from ICG & MIDAS, 2003 and found that there were almost 6 million micro, small and medium enterprises (MSMEs), which included enterprises with “up to 100 workers” employing a total of 31 million people, equivalent to 40 percent of the population of the country of age 15 years and above.

MSMEs play the master role in non-farm job creation in Bangladesh. The latest

Economic Census (2013) counts that among 7.8 million enterprises, almost 89 percent belong to the cottage and microenterprise sector and 11 percent to the small enterprise, 99 percent among all non-farm enterprises fall into the micro and small enterprises collectively they have created 20.3 million employment in 2013. This points out that it is the largest source of employment apart from agriculture. Other than agriculture and the public sector, MSME delivers 86 percent of total employment (World Bank). It also showed a 114% growth over the previously counted number of 3.71 million MSMEs in 2003 (Bangladesh Bureau of Statistics, 2013). Because of the contribution of small businesses to the economy of Bangladesh, SMEs are considered a priority sector for sustainable economic growth. Bangladesh Bank is developing financial access for the SME sector (Aziz, and Siddique, 2016).

The contribution of Small & Medium-Sized Enterprises (SMEs) in Bangladesh is now highly acknowledged. In the broader sense, we can say that SMEs provide output gains, ultimately expanding employment opportunities that lead to an improvement in wealth distribution. In addition, the SME provides a stepping-stone for more ambitious micro-enterprises’ owners with the enhancement of local supply chain engagement for more established companies.

3. Access to Financial Services: The Lifelong Challenges for SME Growth

SMEs play a driving role in economies, especially in developing and emerging markets like Bangladesh. According to Naoko Nemoto and Naoyuki Yoshino in 2019, SMEs in the Association of Southeast Asian Nations (ASEAN) region are estimated to comprise more than 98% of the total number of enterprises, and they contribute to around 40% of the gross domestic product. However,

initiatives for financial literacy and financial technology for SMEs are still very low in number. According to the Business Finance for the Poor in Bangladesh (2019), 75% of small businesses in Bangladesh are still suffering from being unserved by the formal financial sector.

To enhance productivity and warrant sustainable growth in Asia, smooth and easily available finance for SMEs is highly

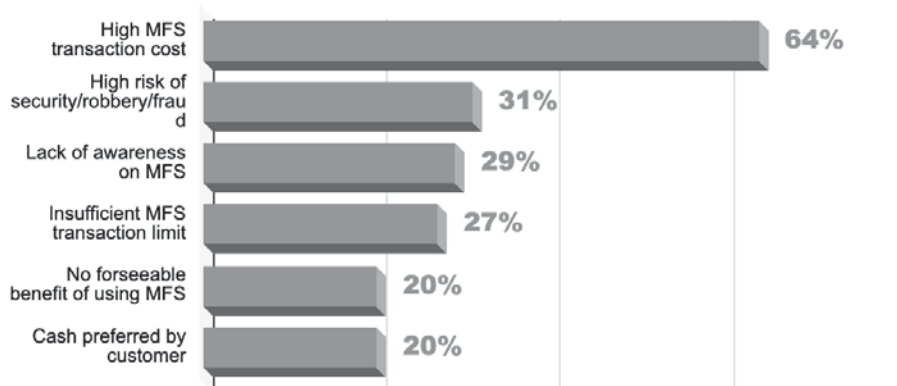
and critically important (Nemoto and Yoshino, 2019). Easy and cost-effective access to finance for micro, small and medium enterprises (MSMEs) is a fundamental challenge that is yet to be solved. The following figure shows the hurdles SMEs face in using technological financial services.

The cost-effective SME sector provides

Figure 1: Hurdles of Using MFS for SMEs

Why don't small Bangladeshi enterprises that use mobile financial services use them for business?

Policy study: Mobile financial services for MSEs in Bangladesh



Source: Business Finance for the Poor in Bangladesh, 2018.

huge employment opportunities with much lower investment. But the development of SMEs is highly dependent on access to

finance. Unified MSME definition adopted in the 2016 Industrial Policy is as follows:

Among various prospects for SME fi

Table 2: Categorization of SMEs according to National Industrial Policy, 2016

Type of Industry		Amount of investment in TK (Replacement cost and value of fixed asset, excluding Land and factory buildings)	Number of Employed Workers
Cottage Industry		Below 1 Million	Maximum 15
Micro Industry		1 to 7.5 Million	16-30
Small Industry	Manufacturing	7.5 to 150 Million	31-120
	Service	1 to 20 Million	16-50
Medium Industry	Manufacturing	150 to 500 Million	121-300
	Service	20 to 300 Million	51-120

financing in Bangladesh, SMEs may be a highly cost-effective source of employment too. The financial inclusion of MSME is a very viable tool for the development of entrepreneurs to establish more small-scale industries, which will accelerate the inclusive growth of developing and emerging countries. From this point of view, MSME is the sector that can largely contribute to GDP growth by deploying its large unemployed young workforce to fully utilize the demographic dividend (Bangladesh Bank, 2018). A study by the World Economic Forum has pointed out that SMEs account for more than half of most countries' GDP and provide almost seven out of ten jobs. Now, it is critically vital that SMEs are privileged with the necessary financial backing to support their development. Traditional financing or lending models have many barriers to accessing finance for SMEs in fast-growing economies. In this context, new FinTech-based approaches to releasing finance and driving economic recovery in this pandemic are emerging.

Despite their essential role, SMEs receive a disproportionately small share of credit from the financial system, a trend that persists across developed and developing countries, including in Asia (ADB 2015). Throughout their life cycle, MSMEs face multiple financing barriers. A study by the World Bank in 2019 elaborated in-depth on supply-side and demand-side barriers. Supply-side obstacles include lack of financial capabilities, low level of formalization, high cost of financing, poor quality of the collateral, inadequate documentation, absence of business plans, etc. On the other hand, supply-side hindrances include high-risk aversion by financial institutions and crowding out of commercial banks by State-owned banks, in addition to tough credit policies and

infrastructure.

The above-mentioned research by the World Bank in 2019 refers to the 2013 Enterprise Survey estimation where they reveal that only 27.5 percent of small firms have bank loans or lines of credit, compared to 44 percent of large firms and 30 percent observed in the region. The study also pointed out the case of Bangladesh and mentioned that in 2017, the International Finance Corporation (IFC) SME Finance Gap Study observed that 55 percent of all MSMEs reported at least being partially financially constrained, of which 39 percent reported being “fully constrained.” Focusing on the manufacturing sector, a survey conducted by the Bangladesh Integrated Support to Poverty and Inequality Reduction through Enterprise Development found that 69 and 45 percent of small and medium enterprises, respectively, identified access to finance as a major constraint (Bakht and Basher 2015). IFC estimated the SME financing gap in Bangladesh in 2011 and projected it to be Tk 237 billion (US\$2.8 billion). A study in 2016 by the Institute for Inclusive Finance and Development gave the opinion that despite the higher growth of micro-finance, access to credit is a notable restriction for microenterprises. It also concluded that a one percent reduction in interest rate increases the demand for microenterprise credit by 5.6 percent. Small firms have to depend on internal funds to finance their investments. Higher collateral requirements relative to loan value are another barrier. It is mentionable that there appears to be a segment, known as the “missing middle”, of small firms and firms at the low-end of medium-sized enterprises that have the most difficulty in accessing bank finance.

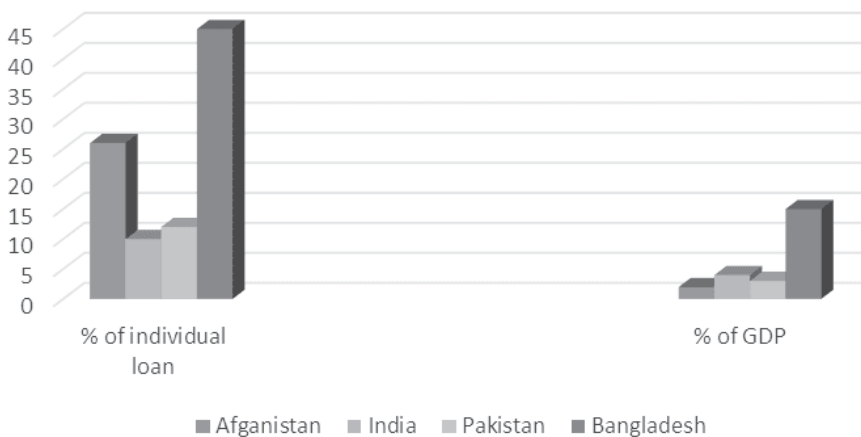
4. Financing to SME and Financial Technology Innovation

There are about 11.6 million micro and small businesses in Bangladesh, including retail shops, amounting to about 5 million in number (TallyKhata, 2021). These small businesses have a combined credit demand of USD 34 billion. Currently, only 38% of this demand can be met via different financial services. Such a scenario in Bangladesh creates a financing gap of USD 21 billion, which is a huge business opportunity for any financial institution.

Currently, microfinance institutions (MFIs) provide about 90% of the credit in this sector. For availing of such credit facilities, small businesses have to pay an effective interest rate (EIR) of 20-24%, which is extremely high.

An earlier World Bank study examined access to finance specifically for SMEs, which ranked Bangladesh ahead of other South Asian countries, as shown below, in terms of both the amount of SME lending as a percentage of GDP and as a percentage of total lending.

Figure 2: SMEs' access to Finance in South Asia



Source: CGAP (2010)

To their credit, the Bangladesh government has taken a number of measures. In 2009, the Bangladesh Bank initiated a move to set targets for commercial banks to finance SMEs to expand formal credit for this sector. The central bank was seeking to replicate the success it had achieved by streamlining farm credit. In addition, Bangladesh Bank set up a separate department for the SME sector, as had been done by the central banks of India and Pakistan to boost SME credit. The

initial Bangladesh Bank target for all banks and financial institutions was Tk240bn (US\$3bn) in SME loans for 2010. This was achieved and the target for the calendar year 2012 is nearly two and a half times the same amount at Tk. 590 bn (US\$7.37bn). Bangladesh Bank has also initiated subsidized programs for specific sectors, such as agriculture and women, with a target of Tk138bn (US\$1.725bn) for the former in the financial year to 30 June 2012 and Tk10bn (US\$125m) for women

entrepreneurs for the following year. Notwithstanding all these arrangements for financing SMEs, the actual delivery of institutional credit to the SME sector can be increased and improved upon.

Table 3: Position of SMEs' Credit in Industrial credit disbursement in recent years (in crore BDT).

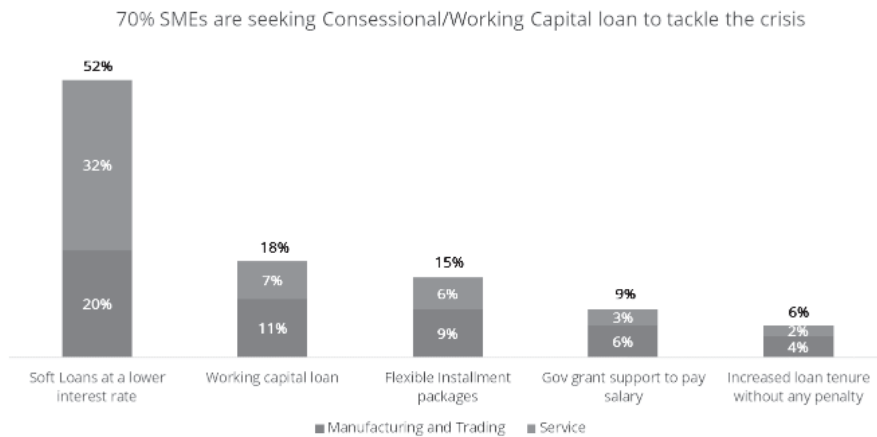
		June 2019	June 2020	June 2021	Change (20-21)
Industrial loan	Large	93,959.11	60,792.87	89,636.81	47.45%
	Medium	11,270.83	8,216.69	9,360.98	13.93%
	Small	9,451.12	5,247.87	8,243.58	57.08 %
Total		114,681.06	74,257.43	107,241.36	44.42%

Source: Bangladesh Bank Website.

From the table, it is obvious that the growth in disbursement of loans to small enterprises ranks just after large loans in the timeframe of June 2020 to June 2021. But the proportion of SME loans compared to large enterprise loans is still smaller.

Among the total loan amount, medium-sized enterprises' loans comprise only 9.82 percent, and small enterprises have a share of 8.24 percent. That is, SMEs receive nearly 17 percent of all loans disbursed.

Figure 3: SMEs seeking Concessional/Working Capital Loan in Covid-19.



Source: Citizen's Platform for SDGs, Bangladesh. 2021

The credit default rate for the micro and small enterprise sector is quite low, at around 3%. This rate indicates that the probability of non-performing loans might be very low for this sector if rendered the right way.

Between 2010 and 2016, total MSME lending from the formal banking sector nearly tripled, with an 18% annual growth rate (Bangladesh Bank). MSME credit increased from 20% to 25% of total

private sector credit from mid-2010 to mid-2016. In this regard, the credit share of micro and small enterprises in the overall MSME portfolio increased from 44% to 51%. From 2010 to 2016, MSME credit as a percentage of total private sector credit increased from 20% to 25% (Bangladesh Bank).

Domestic private commercial banks account for 76 percent of the total outstanding MSME loans, and MSME loans,

in turn, account for about 27 percent of their portfolios. Public commercial banks account for 19% of total outstanding MSME loans, while non-bank financial institutions (NBFIs) and foreign private

banks play a minor role. As of June 2016, the table below compares the total portfolio of outstanding MSME loans to the total amount of loans provided by all five categories of financial institutions.

Table 4: MSME Loans Outstanding as a Share of Total Loans (Mid-2016)

Bank category	Total loan (Tk. billion)	MSME Loans (Tk. billion)	% of MSME Loans	% share of SME Loans
Public Commercial Banks	84039.89	285.60	18.40	18.70
Public specialized Bank	31,213	12.40	29.70	0.80
Foreign Banks	23,853.26	18.60	9.50	1.20
Private Commercial Bank	315,328.57	1,152.20	27.1	75.50
Non-Bank Financial Institutions	31449.30	56.80	11.40	3.70
Total	485,884.62	1525.60	23.90	100.00

Source: Bangladesh Bank Website

IFC attempted to formulate an estimate of the SME financing gap in Bangladesh in 2011, and projected it to be Tk 237 billion (US\$2.8 billion). The estimated financing gap for each SME was US\$2,288, which when combined with an estimated total number of SME enterprises of 804,041, yields a total financing gap estimate of about US\$1.8 billion (Tk 150.5 billion). (Financing Solutions for Micro, Small and Medium Enterprises in Bangladesh—world Bank group-policy research institute-2019)

Nonetheless, the high acquisition and maintenance costs of credit processing for such small businesses stand as obstacles for banks and microfinance institutions (MFIs) in doing business and offering microfinance. Higher supervision and necessary support are also required for small businesses.

5. Financial Technology: Opportunities to Close SME Financing Gaps

Evolving financial technology and revolutions in traditional business models may get privileges from a rapidly digitizing economy to amplify SMEs' access to credit. In 2019, a study by Nemoto showed that the use of alternative data may improve credit analysis of small enterprises which were previously

disadvantaged by limited credit history, a problem in Asian countries where we don't have comprehensive credit bureau coverage. Technology-driven services to business models expand access to finance with growth potential for Asia's SMEs by modernizing inefficient processes and reducing the role of costly intermediaries, by trade finance, and invoice financing, and by leveraging the digitization of commerce to make accounts receivables more easily priced and traded.

Innovation in SME financing can create avenues for liquidity and working capital that help SMEs sustain their business in the early, volatile stages of growth. Bigger scale financial access might also enhance a benevolent cycle that helps to build a credit history that financial institutions can use to better price SME loans, amplifying the benefits and supporting long-term economic growth (ADB, 2014). There may be some undoubtedly disruptive to situations for incumbents, but new SME-focused FinTech firms might take some market share from traditional firms; they are likely to serve the borrowers who are rejected by traditional firms. Market share lost to newcomers will likely be offset by an increase in the overall size of the market. An estimation by ADB found that at least 36% of rejected

financing for SMEs engaged in trade could be financed by some other financial institutions. (Di Caprio, Kim, and Beck, 2017).

Automation is one of the tools that help with contracting and compliance and makes low-value credits to SMEs more feasible. Using technology to boost productivity with lower costs is very rational. Emerging high-end technology is very useful for automating specialized legal financing tasks, which were previously known as high-skilled personnel jobs. But with the progress of digitization, the expense of earlier labor-intensive compliance functions is declining. Information technology-based automation leads to low-cost legal functions and trims down the time and budget required to process paperwork for availing credit and prepare draft loan agreements, which ultimately make the lower value loans profitable. A Structural Shift in the Economic Impact of Asia's SMEs Financial technology is a highly valued element in expanding financial access for small businesses. Some notice-worthy factors make the innovations more powerful for SMEs in Asia because this region's limited credit scoring begs for alternative credit rating bureaus, while the increase in online economic and social activity offers potential data sources to encourage SMEs' limited financial history. A notable catalyst of economic activity, employment, and innovation, SMEs' easy and expanded access to working and investment capital would be healthier and more robust. In this process of financing start-ups with innovative businesses, whose owners are young, will benefit more (Nemoto and Yoshino, 2019).

The lack of financial and technological literacy, a large number of unbanked populations, and the nonexistence of a unified formal financial system are core challenges for FinTech in Bangladesh. With the evolution of financial technology,

"Digital Financing" has come to be known as a game-changer that will open new avenues to close the SME financing gap, empowering SMEs to engage in non-conventional sources of funding based on the database created digitally. Digital financing needs can be focused on digital financial products and ways of availing those by SMEs, digitalization of SMEs' structures to enhance their efficiency, reducing production costs to increase profitability, and finally, emphasizing the impact of digital market enablers such as e-commerce.

A study by the World Economic Forum shows that in recent years growing FinTech lenders for SMEs are offering faster, easier, more cost-effective, and more transparent lending options. It may be helpful for the SMEs by sharing data they have in exchange for access to credit to help them grow. By using advanced analytics platforms and artificial intelligence to assess transactional and alternative data, FinTech lenders are gaining a much deeper understanding of SMEs. It helps them to develop businesses' creditworthiness, risk evaluation more easily, and provide financing in the shortest period. Today, these new, innovative, data-and artificial intelligence-led solutions are better positioned to serve SMEs' financing needs, lead them out of the imminent financial crisis, and unlock their potential full-fledged (World Economic Forum, 2020).

A prudent analysis is needed to mitigate the challenges of low levels of financial and business literacy, rigid regulatory frameworks, and cyber security risks. In addition, the development of a strong digital infrastructure and cyber security management by bank-FinTech partnerships is an ultimate need for lessening the financing gap faced the SMEs in Bangladesh.

6. New Roadmap - Mobile Financial Services (MFS) Empowering Small Businesses

MFS was introduced in Bangladesh in 2011 as the country acquired pervasive mobile phone network experience, a large number of mobile phone users, and improved IT infrastructure. Within seven years, this exponentially growing bank-led model of MFS has become the largest MFS market in the world.

According to recent statistics from Bangladesh Bank, in Table-3, it is shown that, there has been sharp progress in MFS Account, Agent Banking Account, and the Number of Deposit A/C (including Special A/C) throughout 2017 to 2020. The noteworthy rise is seen in MFS account and agent banking accounts. The growth of MFS account and agent banking accounts from 2019 to 2020 are respectively 24.7% and 83.46%.

Table 5: Financial Inclusion Statistics of Bangladesh

Key Financial Inclusion Indicators		Dec-2017	Dec-2018	Dec-2019	Dec-2020*
Number of Bank Branches		9,955	10,281	10,568	10,671
Number of ATM		9,522	10,280	10,924	11,923
Number of Deposit A/C (Including Special A/C)		96,497,905	97,118,819	107,895,699	115,932,106
Loan A/C		NA	10,076,372	10,331,866	10,667,037
MFS Account	Male Account	NA	35,954,889	40,314,735	51,491,888
	Female Account	NA	31,558,910	39,181,932	47,604,439
	Others Account	NA	2,208	157,081	239,871
	Total Account	58,787,627	67,516,007	79,653,748	99,336,198
Agent Banking Account	Male Account	NA	1,619,375	2,977,556	5,282,197
	Female Account	NA	809,376	2,203,857	4,075,833
	Others Account	NA	26,724	76,356	287,969
	Total Account	1,214,561	2,455,475	5,257,769	9,645,999
Special Account	Farmers 10 TK A/C	NA	7,965,034	8,628,964	9,047,724
	Social Safety A/C	NA	4,907,721	7,141,842	9,310,586
	Hardcore Poor A/C	NA	1,997,003	2,216,527	2,467,658
	School Banking Account	1,313,158	1,596,606	1,925,368	2,620,334
	Other Special A/C	NA	2,290,024	2,825,464	3,424,773
	Total Account	15,232,492	18,756,388	22,668,492	26,871,075
NA: NA means indicator wise separate data were not available					
*Provisional data have been used for 2020					
Multiple accounts for a person may exist in the total number of banking and other accounts					
Data Source: Bangladesh Bank.					

Source: Bangladesh Bank website

From the above statistics and other research, it is obvious that the adoption of technology for financial purposes in Bangladesh was not hindered by the pandemic situation; rather it experience a new model and further uprise (Uddin. A et al., 2021). Demand for cashless transactions speeds up the digital transaction process in the timeframe (Gomes, 2020). The use of MFS increased for safe and secure financial access with the longer period of the social distancing and lockdown situation during the pandemic. However, when observed thoroughly, the access of individuals grew more than the access for business especially for micro and small enterprises. Access to finance and financial technology has become utterly a prerequisite for the development and recovery of small businesses after COVID-19.

Therefore, considering the overall scenario reflected by the data shown in the four tables above, we can come to the conclusion that the situation concerning both financial inclusion and financial services has experienced significant progress in Bangladesh from 2017 to 2020. (NFIS)

According to Tracxn (2021), 118 FinTech startups coexist in Bangladesh. However, the innovative FinTech approach in Bangladesh is mostly surrounded by MFS (Liaquat, 2021). MSMEs and traders are the main users of MFS among all businesspeople. These services have improved the operational efficiency of MSMEs and contributed to their bankability. Currently, there are 15 bank-led MFS providers with over one million agents across the country in operation. MFS service providers in Bangladesh are shown in Table 6.

Table 6: MFS providers List

MFS Service name	Bank/service provider Organization
Rocket	Dutch Bangla Bank Ltd.
bKash	BRAC Bank Ltd.
Trust Axiata Pay (TAP)	Trust Axiata Digital Limited
Islamic Wallet	Al -ArafahIslami Bank Ltd
Spot Cash	Standard Bank Ltd
Meghna Bank Tap n Pay	Meghna Bank Ltd
Upay	United Commercial Bank Ltd/ UCB FinTech Company Limited.
My Cash	Mercantile Bank Ltd.
OK wallet	One Bank Ltd.
Nagad	The Directorate of Posts and Third Wave Technologies
T -cash	Trust Bank Ltd.
M -cash	Islami Bank Bangladesh Ltd.
Rupali Bank SureCash	Rupali Bank Ltd.
BCB SureCash	Bangladesh Commerce Bank Ltd.
First Pay SureCash	First Security Islami Bank Ltd.
NCCB SureCash	National Credit & Commerce Bank Ltd.
TeleCash	South East Bank Ltd.
Bank Asia SMART App	Bank Asia Ltd.
IFIC Mobile App	IFIC Bank Ltd.

The number of registered MFS clients (accounts) increased by 25% between December 2019 and December 2020, from under 80 million to close to 100 million. In December 2020 the number of active accounts was 32.2 million, the total value of transactions was BDT 556 billion (USD 6.7 billion), about BDT 19 billion (USD 220 million) per day, the number of transactions stood at 300 million, averaging 9.7 million transactions per day,

and the number of agent was 1,058,897. As of December 2020, the three main transaction categories by volume accounted for 88 percent of the total: cash-in transactions (30.7 percent), P2P transactions (30 percent), and cash-out transactions (27.3 percent). Merchant payments (3.8 percent), salary disbursement (3.7 percent), and utility bill payments (1.5 percent) were among the other transactions.

Table 7: Mobile Financial Services (MFS) comparative summary statement of June 2021 and July 2021

Sl. no.	Description	Amount in June 2021	Amount in July 2021	% Change (Jun-Jul 2021)
1	No. of Banks providing the Services	15	15	
2	No. of agents	1,115,101	1,141,743	2.4%
3	No. of registered clients in Lac	997.85	1,027.15	2.9%
4	No. of active accounts in Lac*	409.24	411.58	0.6%
5	No. of the total transaction	319,820,772	326,375,159	2%
6	Total transaction in taka (crore BDT)	62,993.93	66,387.45	5.4%
7	No. of the daily average transaction	10,660,692.00	10,528,231.00	
8	Average daily transaction (crore BDT)	2,099.80	2,141.53	2%
9	Inward Remittance	Amount (crore BDT)	Amount (crore BDT)	
a	Inward Remittance	176.98	282.68	59.7%
b	Cash In transaction	18,316.28	17,935.45	-2.1%
c	Cash-Out Transaction	15,741.69	17,360.26	10.3%
d	P2P transaction	18,827.81	20,534.19	9.1%
e	Salary Disbursement (B2P)	2,243.22	3,403.33	51.7%
f	Utility Bill Payment (P2B)	1,243.80	992.97	-20.2%
g	Merchant Payment	3,293.23	3,096.79	-6%
h	Government Payment	1,225.17	541.21	-55.8%
i	Others	1,925.77	2,240.58	16.3%

Source: Bangladesh Bank Website.

[1 lac = 0.10 million and 1 crore = 10 million]

As per Bangladesh Bank permission, the MFSs have been providing Cash in, Cash out, Person-to-Person (P2P), Person to Business (P2B), and Business to Person (B2P), Person to Government (P2G) and Government to Person (G2P) payment services domestically only (BB).

In July 2021, the total amount of MFS transactions was 66387.45 crore BDT, a

5.4% increase from the previous month, with merchant payments accounting for BDT 3,096.79 crore BDT, or 4.66% of total MFS transactions. Yet, MFS is hardly accessible for small businesses due to difficulties in opening bank accounts or MFS accounts under the existing system. A Survey Report on an Enquiry into the Causes of High Increase in Loans to the Small and Medium Enterprises (SME) and Its Economic Impact, done by research Department of Bangladesh Bank, identifies

some mentionable problems faced by SME Entrepreneurs in progressing their business. These are - longer time in receiving loans, additional imposition of interest or service charge, evaluation fee for collateral, shortage of collateral-free loans, lingering in getting payment of goods sold and underutilization of production capacity due to unavailability of working capital, lack of infrastructure and efficient manpower, huge uneven competition, lack of utility supplies, fluctuation in the exchange rate, natural disasters etc.

Bangladesh Bank has recently relaxed the requirement like allowing small businesses to receive payments from e-wallet, MFS for further financial inclusion and empowering these businesses (Murtuza, 2020). With no requirement for Tax Identification Number, VAT registration numbers, or any such documents, attested certification and NID will be enough to open a personal retail MFS account under the supervision of officials. A popular MFS company, bKash, has already introduced the concept of personal retail for small businesses (Bkash, 2021). Thus, Mobile Financial Services (MFS) like bKash, Nagad, etc. are now being used by various small traders, personal retailers, sometimes even rickshaw pullers, and street vendors for instance.

Despite this growing usage of MFS among small businesses, access to financial technology capacitates in a limited manner to digital transfer transactions mostly. Software as a service (SaaS), digital loan and credit facilities, digital financial platforms, etc. need more ways to be unveiled as a form of access to financial technology for small businesses. In this regard, some other developments are also noticeable. Some FinTech companies facilitate payment(s) or payment processes directly to the customers and settle transactions through a bank or financial institution. The financial sector regulatory authority has permitted the

paymentservice operator (PSO) and payment service provider licenses to the companies that operate a settlement system for payment activities between and among participants, of which the principal participant must be a scheduled bank or financial institution, such as a payment gateway, payment aggregator, etc. At present, the operating companies are IT Consultants Ltd (PSO), SSL Commerz Ltd (PSO), ShurjoMukhi Ltd (PSO), Progoti Systems Ltd. (PSO), Portonics Limited (PSO), iPay Systems Ltd (PSP), D Money Bangladesh Ltd (PSP), Recursion FinTech Ltd (PSP) and Green & Red Technologies Ltd (PSP).

MFS is authorized to conduct domestic business in Person-to-Person (P2P), Person-to-Business (P2B), Business-to-Person (B2P), Person-to-Government (P2G), and Government-to-Person (G2P) payment services in Bangladesh. Very few MFS extend their service line from business to business. In this regard, Upay or SureCash is persuading businesses to offer business financial services to their clients.

7. Case Studies MFS for SMEs

Case 1: TallyKhata - An example of empowering SMEs with financial technology

A digital version of the age-old concept “TallyKhata”, or in English, “bookkeeping”, is currently one of the fastest-growing mobile phone applications for small and medium-sized stores in Bangladesh. The name “TallyKhata” refers to the cultural custom of keeping accounts for Bangladeshi small business owners. In combination with the flexible services offered and swift responsiveness to user feedback, the name itself might also have some influence in popularising the concept of going digital among small businesses at a rapid pace. As of August 2021, the User details of TallyKhata is shown in Table 8.

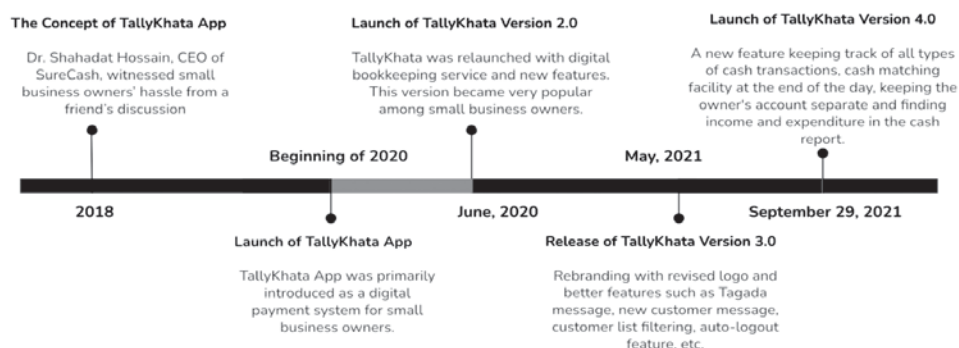
Table 8: User Details of TallyKhata (as of August 2021)

Registered Users	2,800,000
Daily Active Users	181,000
Monthly Active Users	809,000
Total Recorded Transactions/Month	22,000,000
Transaction Recorded Value/Month	BDT 76 Billion

Source: TallyKhata

It is an easy-to-use mobile application that provides digital bookkeeping software for small businesses, developed by Progoti Systems Limited (Tracxn, 2021). It was introduced by SureCash, a mobile payment company in the country, in June 2020 and

is downloadable in Android devices. SureCash introduced digital benefits for urban and rural small businesses, encouraging these establishments to digitize their accounts in a simplified manner.

Figure 4: Timeline of Tallykhata Release

Source: Author

Micro and small merchants are encouraged to use the app because of its user-friendly interface and flexible free-of-cost services. The app gained huge popularity countrywide in the short period after its launch during the pandemic, mostly among street-side vendors, groceries, pharmacies, and wholesalers for everyday bookkeeping.

This mobile financial services platform is completely in Bangla, the native language of Bangladeshis, and it is designed to work

offline without any internet connection. Internet connectivity is only necessary for backup and restoration of information kept in the application. The application offers easy tools for business transaction accounting, monthly revenue and expenses, reporting of profit and loss in the time frames, management of the accounting records, etc. It is available online at the play store and can be downloaded or updated free of charge.

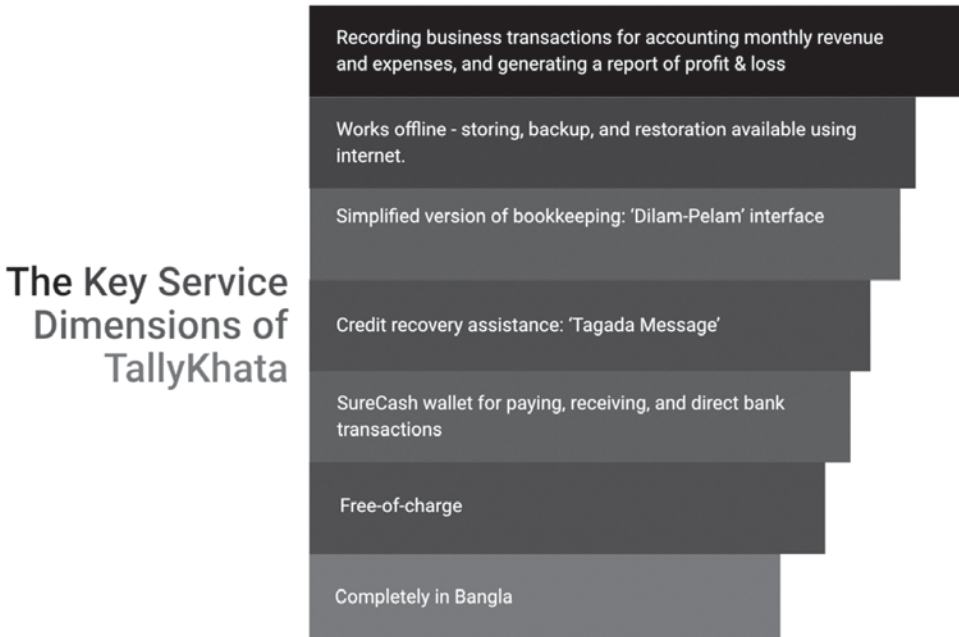
A very simplified version of bookkeeping is

offered following the “Dilam-Pelam” interface. It eradicates the complexity of double-entry bookkeeping for small business owners. An unlimited number of customers can be added depending on the capacity of their smartphone storage. It also offers a SureCash wallet to its users for hassle-free digital payments with banks, both from their customers and suppliers, facilitating forward and backward linkage transactions.

A hugely popular feature of the app is “Tagada Message”, the equivalent of issuing reminders. It is a text message sent to customers’ numbers free-of-cost, which is designed to assist in credit recovery. Generating reports for profit and cash is a bonus to the free-of-cost services. The app’s data cannot be manipulated by hacking due to its secured credentials. Further, the entries can be edited to modify mistakes and errors.

Figure 5: The Key Services Dimensions of ‘TallyKhata’

‘Dilam-Pelam’ refers to give and take in Bengali.



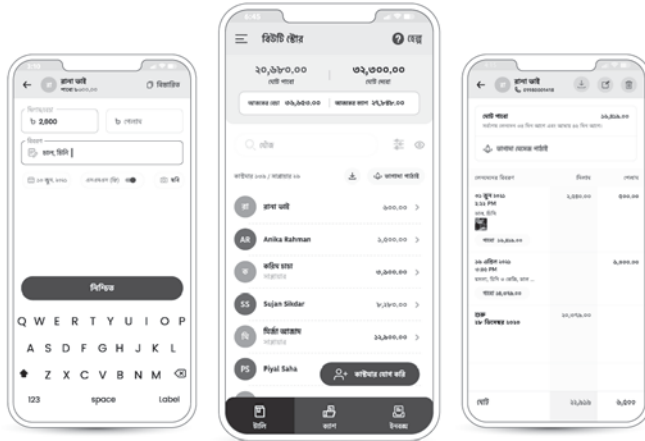
Source: Author

To use the app, one must download the app into their smartphone first. The app provides options to sign up and open an account for the user. This step can be skipped, but losing the phone or data erosion will result in the complete loss of all the previous inputs in the application without an account or time-to-time backup of the information to the servers of the application. To keep track of an account, shopkeepers can enter their customers'

phone numbers and enter figures of the amount in credit that gets incorporated in the app. The records of outstanding debts and latest purchase information are immediately notified to the customer via mobile carrier message. It is a completely free-of-cost service right now, notwithstanding the plan of the company officials to bring inside-app payments anytime soon (Mithu, 2020). However, this app has significantly eradicated all

conceivable hassles in keeping traditional manual ledgers, eliminating chances of various errors and clashes for many micro and small merchants.

Figure 6: User Interface of TallyKhata



Source: Tallykhata App.

TallyKhata in Action – I

Mr Abdul Majid, owner of Mithila Store, a general store in Ekdala village, 20 kilometres away from the Sirajganj Sadar Upazila office, runs his whole business from his smartphone using the TallyKhata business app. He has no notebooks in his shop to manually calculate; rather, a large number of credit customers and all other customers in his grocery shop are kept track of using the app. Alamin, owner of Tin Bhai Store in Vatara, Dhaka, also became digital by entering all his customers from old paper books to the app. Now he sends repayment reminders or tagada using SMS or Imo messenger. “After receiving a tagada message from TallyKhata, a customer paid off BDT5,000 of dues while sitting in Barisal!” he reported excitedly. He lost track of this customer more than a year ago and had already given up any hope of repayment. This issue is very common among Bangladeshi shopkeepers and small businesses and can be effectively solved by using Tallykhata.

TallyKhata in Action - II

Jitu Mirza is another regular user of TallyKhata for his pharmacy at Fulbari Bazar in Atrai Upazila, Naogaon. Earlier, he used to maintain three kinds of books - cash, credit, and company, but Tallykhata has enabled him to keep all business transactions on his phone. He used to keep piles of paper memos from medicine companies using an old-style hole-and-wire binder before familiarising with Tallykhata. With Tallykhata, upon receiving a memo, he enters the data into TallyKhata and attaches a photo of the memo with the transaction, enabling all company purchases and payments at his fingertips.

TallyKhata in Action - III

With the download and use of Tallykhata, Mr. Mamun, owner of Ayaan Departmental Store at Uttara, Dhaka, sold 160 thousand BDT on credit for one-third of the month, where his perceived number of credits per month was 70-80 thousand BDT. Moreover,

disputes with customers were common on credit balances. His shop used to suffer a business loss of 1,500-2,000 BDT every month due to poor record-keeping and customer disputes. Digital record of credit sales along with transaction SMS has solved this problem completely, and credit collection has become much easier using digital SMS tagada.

Tallykhata has reduced this discrepancy in recording accounts and allowed reaching the customers for payment without any hassle for the examples used and all the other users of the app, empowering small businesses. Saving the time used to prepare business accounts at the end of the day or month, TallyKhata maintains the business ledger automatically for these businessmen, and recording a transaction in the app takes 50% less time than in old-fashioned paper books, according to the users. It has been very popular in recent months for small businesses and shops such as general stores, groceries, pharmacies, wholesalers, and small factories or dairies. Its adoption has shown rapid growth in the last 12 months, even during the COVID-19 pandemic crisis, and has become the largest community of MSME businesses in the country.

Future Plans of ‘TallyKhata’

After increased popularity, TallyKhata is also planning to introduce a digital wallet for merchants named “TallyPay” which will be able to receive QR payments with payment interoperability among digital wallets, credit cards, or bank accounts. However, soon it wishes to become an Interoperable Digital Transaction Platform, similar to UPI in India, by attaining the Payment Service Provider (PSP) license from Bangladesh Bank with the vision of becoming the leading acquirer wallet in the country. TallyKhata also started thinking about assisting in and providing credit facilities from the very start when it was receiving appreciation from its users. Logging business transactions in the app

regularly will enable the user to generate organized turnover and sales reports and credit information that can be used for applying for a loan. Moreover, with the accumulated big data and Artificial Intelligence (AI) based credit rating, TallyKhata initiated an Innovative Partnership Model for Digital Lending with banks and MFIs such as BRAC Bank, Buro Bangladesh, etc. in February 2021 as a pilot project. Currently, the financial technology company has provided an estimation that 100 merchants have received such loans as a part of the project. These loans are designed to be one-year loans, with a monthly EMI with support from UNCDF and the European Union. It has already made 125 loans worth a total of USD155 thousand.

TallyKhata launched the pilot project to provide low-interest loan facilities to merchants seeing the credit demand in the micro and small business sectors and aims to start full-fledged microloan services for the stores and small business owners for further financial inclusion in the MSME sector.

Case 2: Upay and its B2B scopes for SMEs

Accordingly, a good number of banks started to roll out different ADC (Alternative Delivery Channel) products through online banking, SMS banking, Kiosks, etc. and in the later period, to scale up the operation, many of those FIs and an MFI brought in MFS (Mobile Financial Services), focusing primarily on the transfer and payment options available at the customer’s doorsteps. With all these MFS wallets and mobile banking apps in force, the combined contribution (including Agent Banking) to the country’s total money circulation aspect stood at 0..30% as of March 2020.

When a customer is able to avail/perform the below-mentioned activities through an MFS wallet, society will reap the benefit of financial inclusion:

- Send and Receive money
- Pay and Get Paid
- Savings and Investments
- Borrowing and Lending

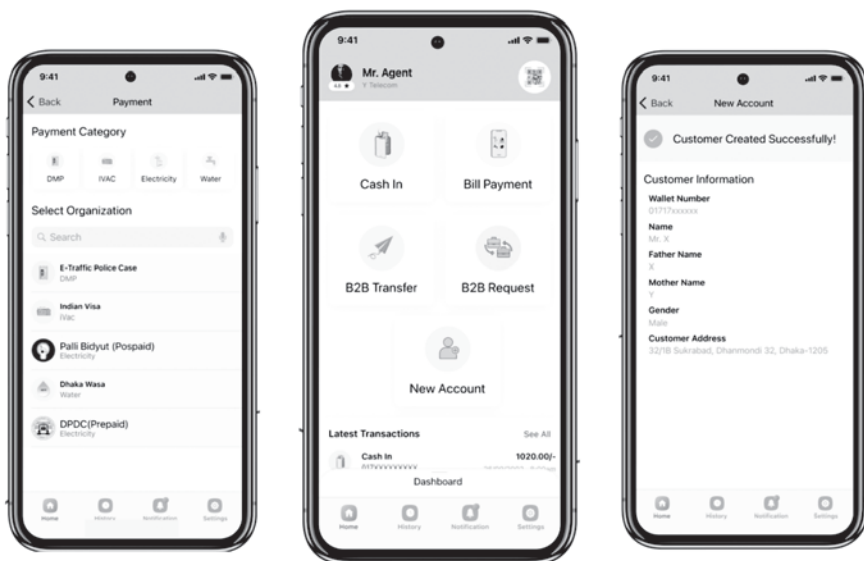
To solve this issue, UPAY is proposing to each customer a virtual account tagged with their respective wallet. With that virtual banking account, the proposed user would be able to make savings and investments as well as obtain borrowing and lending products through his mobile wallet. This basically will open up the user's chance to be financially included

and get access to financing from the formal economy. UPAY is focusing on redefining the DFS wallet with the basic aim of financial inclusion and access to finance.

Each of the proposed MFS wallets will come with a virtual bank wallet through which the incumbent would be able to do all sorts of banking transactions, starting from basic deposits to FDR or other saving schemes to lending products.

However, the product has a dependency on the bank in order to roll out this MFS wallet because the virtual wallet has to be

Figure 7: User Interface of Upay for Agents.



Source: Upay Agent App.

incorporated with the bank's core banking system (CBS). Apart from this technological dependency, there will also be important linkages in the charge

schedule model for account acquisition, account opening, different types of deposit acquisition, and MSME financing aspects.

Figure 8: Upay Banner for MSMEs.



Source: Upay Website.

MFS has focused on resolving some notable perennial annoyances such as Cash Carrying Risk, Cash Carrying Risk, Depositing to Parent Company Account, handling loose currencies, In-time reporting for the Parent Company, and so on. FIs have been and are trying to address these issues through evening banking hours and agent banking networks. Upay has given special attention to solving the mentioned issues and is accordingly catering to their end-to-end needs through a country-wide distribution network. Types

of companies like FMCGs, pharmaceuticals, large wholesalers, and SMEs with multiple sales outlets fall under this purview.

For NGOs and other MFIs, Upay, is working to finalize a close loop solution where their field-level representatives will act as Upay agents and collect EMIs from their borrowers in one hand and the other hand, side-by-side, those agents would receive a commission from Upay for creating individual Upay wallets among those borrowers. In the end, the focus is to create a digital ecosystem that keeps

Figure 9: Upay QR code in stores.



financial inclusion at the top of mind.

After a period of time, Upay would have the transaction behavior pattern/track of those still unbanked community and, with the assistance of their in-house capable technology team supported by Artificial Intelligence and Machine Learning, would

be able to make Specially Designed Products, which could be referred to as access to finance for those segments..

8. Policies sought for aligning financial technology with the MSME development

The FinTech revolution is currently

emerging in Bangladesh. However, much of the focus is seen to go to individual users or at the institutional level. TallyKhata is a fundamental example of how FinTech can facilitate MSME development. Financial services regulators and policymakers could consider several policy issues. First, Bangladesh Bank could encourage innovation and development of more MFS platforms that operate in the B2B space through laboratory or financial incentives. Second, digital lending and savings activities could be allowed through the B2B MFS platforms; for independent platforms that are not subsidiaries of a bank, they could be allowed to enter into special agreements with a bank or a non-bank financial institution. Third, the central bank could also advise banks and financial institutions to develop digital financial products specifically targeting MSMEs and deliver them digitally, which can save both cost and time. If the regulators and policy-makers support the FinTech development for the MSMEs right now, the sector would be largely benefitted as it would ensure low cost access to financial services powered by technology.

9. Conclusion

Bangladesh is currently in a position to benefit greatly from the development of financial technology. However, the lack of infrastructure for financial access inhibits the path of utilizing the increased mobile phone penetration. The advent of the COVID-19 situation has incentivized the growth of financial technology, especially mobile financial services. However, micro and small enterprises still cannot access financial technology. However, TallyKhata, Upay, and other MFSs are fast-movers in the industry, tapping micro and small business owners with digital financial services, doing a tremendous job appreciated by millions of merchants, vendors, shopkeepers, and retailers in Bangladesh. For the steady recovery of the SME sector after the COVID-19 crisis and its proper development, more such platforms working for financial inclusion and financial technology are required.

References

- Arslanian, H. and Fischer, F., 2019. Financial Innovation and Inclusion. In *The future of finance* (pp. 81-86). Palgrave Macmillan, Cham.
- A Survey Report on an Enquiry into the Causes of High Increase in Loans to the Small and Medium Enterprises (SME) and Its Economic Impact. Research Department Bangladesh Bank Head Office April 2016
- Aziz, A. and Naima, U., 2021. Rethinking digital financial inclusion: Evidence from Bangladesh. *Technology in Society*, 64, p.101509.
- Aziz, T. and Siddique, M.N.E.A., 2016. The Role of Bangladesh Bank in Promoting SMEs' Access to Finance in Bangladesh. *International Journal of SME Development*, 3(2), pp.103-118.
- Bangladesh Bank, 2021. mobile financial services data. [online] Bb.org.bd. Available at: <<https://www.bb.org.bd/fnansys/paymentsys/mfsdata.php>> [Accessed 20 September 2021].
- Bangladesh Bureau of Statistics, 2013. Economic Census 2013. Economic Census 2013 In Abridged Form. [online] Bangladesh Bureau of Statistics. Available at: <<http://data.bbs.gov.bd/index.php/catalog/65>> [Accessed 20 September 2021].
- Bkash, 2021. bKash brings Personal Retail Accounts for small businesses. [online] Available at: <<https://www.bkash.com/personal-retail-account>> [Accessed 20 September 2021].
- Citizen's Platform for SDGs, Bangladesh. 2021. COVID-19: Impact on Bangladesh's SME Landscape - Citizen's Platform for SDGs, Bangladesh. [online] Available at: <<https://bdplatform4sdgs.net/bibliography/covid-19-impact-on-bangladeshs-sme-landscape/>> [Accessed 21 September 2021].
- Daily Sun, 2020. TallyKhata – an easy-to-use mobile app for small traders. [online] daily sun. Available at: <<https://www.daily-sun.com/printversion/details/507275/TallyKhata-%E2%80%93-an-easyto-use-mobile-app-for-small-trader>> [Accessed 21 September 2021].

- The Daily tbsnews2021 Digital financing new approach bridging SME financing gaps [online] Available at: <<https://www.tbsnews.net/features/panorama/digital-financing-new-approach-bridging-sme-financing-gaps-301645>>
- Digital financing: A new approach to bridging SME financing gaps. Available at: <<https://www.tbsnews.net/features/panorama/digital-financing-new-approach-bridging-sme-financing-gaps-301645>>
- Financing Solutions for Micro, Small and Medium Enterprises in Bangladesh, 2019. Policy Study: World Bank Group, Policy research Institute.
- Gomez, V., 2020. Mobile Financial Services soaring in a pandemic-stricken Bangladesh. [online] The Daily Star. Available at: <<https://www.thedailystar.net/toggle/news/mobile-financial-services-soaring-pandemic-stricken-bangladesh-1900507>> [Accessed 20 September 2021].
- Hasan, M., 2021. Digital financial services: 'Lack of infrastructure, capacity key challenges'. [online] Dhaka Tribune. Available at: <<https://www.dhakatribune.com/business/economy/2020/08/10/digital-financial-services-lack-of-infrastructure-capacity-key-challenges>> [Accessed 20 September 2021].
- How FinTech can help SMEs recover from the impact of COVID-19) Available at <
(<https://www.weforum.org/agenda/2020/05/FinTech-can-help-smes-recover-covid-19/>->
- Kashem, A., 2021. Nagad ownership row ends. [online] The Business Standard. Available at: <<http://www.tbsnews.net/economy/nagad-ownership-row-ends-293689>> [Accessed 20 September 2021].
- Khatun, M.N., Mitra, S. and Sarker, M.N.I., 2021. Mobile banking during COVID-19 pandemic in Bangladesh: A novel mechanism to change and accelerate people's financial access. *Green Finance*, 3(3), pp.253-267.
- Khatun, N. and Tamanna, M., 2020. FACTORS AFFECTING THE ADOPTION OF FINTECH: A STUDY BASED ON THE FINANCIAL INSTITUTIONS IN BANGLADESH. *Copernican Journal of Finance & Accounting*, 9(4), pp.51-75.
- The landscape of SME finance in Bangladesh-An analysis of providers, products, requirements and constraints. Business Innovation Facility (BIF) Bangladesh.
- Liaquat, Z., 2021. Bangladesh lags behind in the FinTech ecosystem globally. [online] Dhaka Tribune. Available at: <<https://www.dhakatribune.com/business/2021/06/27/bangladesh-lags-behind-in-FinTech-ecosystem-globally>> [Accessed 20 September 2021].
- Micro, Small and Medium-sized Enterprises' Access to Finance in Bangladesh. United Nations Economic and Social Commission for Asia and the Pacific MSME Financing Series No. 5, 2021.
- Available at <<https://www.unescap.org/kp/2021/micro-small-and-medium-sized-enterprises-access-finance-Bangladesh>>
- Mithu, A., 2020. TallyKhata: Digitising the culture of buying and selling on credit. [online] The Business Standard. Available at: <<https://tbsnews.net/feature/panorama/tallykhata-digitising-culture-buying-and-sellin-g-credit-154465>> [Accessed 21 September 2021].
- Muqtada, M. ed., 2020. Quest for Inclusive Growth in Bangladesh: An Employment-focused Strategy. Springer Nature.
- Murtuza, H., 2020. BB allows small traders to receive payments from e-wallet, MFS. [online] New Age. Available at: <<https://www.newagebd.net/article/121776/bb-allows-small-traders-to-receive-payments-from-e-wallet-mfs>> [Accessed 20 September 2021].
- Nabi, M., Talukder, M., Saha, P., Sutradhar, R., Fahmida, A., Chen, G. and Banerjee, S., 2012. Mobile Financial Services in Bangladesh: An Overview of Market Development. [online] Bangladesh Bank, p.6. Available at: <<https://www.bb.org.bd/pub/research/policypaper/pp072012.pdf>> [Accessed 20 September 2021].

- Nathan, 2021. Mobile Financial Services Underutilized by SMEs in Bangladesh — Nathan. [online] Nathan. Available at: <<https://www.nathaninc.com/mobile-financial-services-underutilized-by-smes-in-bangladesh/>> [Accessed 20 September 2021].
- New Age, 2021. Postal directorate owns Nagad: DG. [online] New Age. Available at: <<https://www.newagebd.net/article/148622/postal-directorate-owns-nagad-dg>> [Accessed 20 September 2021].
- Naoko, N. and Naoyuki, Y. 2019. FinTech for Asian SMEs. Asian Development Bank Institute.
- National Financial Inclusion Strategy issued by the Ministry of Finance, People's Republic of Bangladesh.
- Nicoletti, B., Nicoletti, W. and Weis, 2017. Future of FinTech. Basingstoke, UK: Palgrave Macmillan.
- Rahman, A., 2020. SME can be the driver of economic recovery. [online] The Financial Express. Available at: <<https://thefinancialexpress.com.bd/views/sme-can-be-the-driver-of-economic-recovery-1608824702>> [Accessed 20 September 2021].
- Rahman, B., Ahmed, O. and Shakil, S., FinTech in Bangladesh: Ecosystem, Opportunities and Challenges.
- Rashid MH., 2020. Prospects of digital financial services in Bangladesh in the context of the fourth industrial revolution, Asian J. Soc. Sci. Leg. Stud., 2(5), 88-95. <https://doi.org/10.34104/ajssls.020.08809>
- Small and Medium Enterprise in Bangladesh-Prospects and Challenges By Md. Alauddin& Mustafa Manir Chowdhury -Global Journal of Management and Business Research: C Finance Volume 15 Issue 7 Version 1.0 Year 2015 Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc. (USA) Online ISSN: 2249-4588 & Print ISSN: 0975-5853.
- Small and Medium Enterprise (SME) Credit Policies & Programmes. Bangladesh Bank.
- Survey on MSME Financial Inclusion Indicators, 2016, Research Department Bangladesh Bank April 2018.
- TallyKhata. 2021. Support for small and medium-sized digitalization - TallyKhata. [online] Available at: <<https://www.tallykhata.com/en/small-and-medium-sized-digitization-support>> [Accessed 20 September 2021].
- The Business Finance for the Poor in Bangladesh, 2018. Policy Study: Catalysing Business Transformation. [online] Nathan. Available at: <<https://static1.squarespace.com/static/5a84894df14aa1f379d18290/t/5aa3f91371c10b34ddbdd701/1520695608351/BFP-B+policy+study+mobile+financial+services.pdf>> [Accessed 20 September 2021].
- The Business Standard, 2020. TallyKhata helps small businesses go digital. [online] The Business Standard. Available at: <<https://tbsnews.net/economy/banking/tallykhata-helps-small-businesses-go-digital-135478>> [Accessed 21 September 2021].
- The Daily Observer, 2021. TallyKhata Introduces new logo, advanced features. [online] The Daily Observer. Available at: <<https://www.observerbd.com/news.php?id=313069>> [Accessed 21 September 2021].
- The Daily Star Report. 2020. Digital Bangladesh 2021: Payment systems and FinTechs. [online] Available at: <<https://www.thedailystar.net/supplements/news/digital-bangladesh-2021-payment-systems-and-FinTech-1974417.>>> [Accessed 20 September 2021].
- Tracxn, 2021. FinTech Startups in Bangladesh. [online] Available at: <<https://tracxn.com/explore/FinTech-Startups-in-Bangladesh>> [Accessed 20 September 2021].
- Tracxn, 2021. TallyKhata. [online] Tracxn. Available at: <<https://tracxn.com/d/companies/tallykhata.com>> [Accessed 20 September 2021].
- UddinA.,HasanM. M., IslamM. S., and OnikM. M. H., 2021. Factors, Observed During Covid-19 to Overcome Financial Crisis: A Case of Bangladesh. AIUB Journal of Science and Engineering, 20(1), pp. 65 - 70. doi: 10.53799/ajse.v20i1.151