CHAPTER 6

Access to Finance for Inclusive Development: Recent Evidence from Bangladesh

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Introduction

In all influential economic entities, Financial Inclusion (FI) aids in enhancing earning potential, accumulating savings, availing credit, facing financial emergencies, and fighting poverty in a better way. Recent development theories also advocate for the equitable allocation of finance as a means to ensure sustainable economic growth. Although a growing body of research

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is directed to link FI as one of the mainstays of global development, a very few of them offer a country-based perspective. Against this backdrop, this chapter aims to assess the degree of FI along with its contribution toward inclusive development, and provide some feasible way-out for including mass people within the formal financial network.

The FI is defined as the process of including the unbanked populace within the network of the formal financial system at an affordable cost and in a sustainable way. The United Nations (UN) blue book defines FI as "the access to credit for all 'bankable' people and firms, to insurance for all insurable people and firms and savings and payment services for everyone" (UN 2006: 1). From Bangladesh's perspective, the policy directives issued by the Bangladesh Bank (Table 6.5 in the Appendix), the central bank of the country, indicate FI as access to financial service from officially regulated and supervised entities, including licensed commercial banks, financial institutions, microfinance institutions (MFIs), and co-operatives; and official entities, including post offices, money transfer, insurance, and national savings bureau. This definition implies that inclusion should be through mainstream financial institutions, and the supply of credit from local moneylenders is excluded from the purview of FI. A person will be counted as financially included if she/he has an account with any formal financial institution, which provides her/him an opportunity of adequate and timely essential financial services, including savings, credit, insurance, payments or money transfer, and remittance transfer at an affordable, minimum, or low cost. FI, along with its minimum service provision, includes financial literacy of the beneficiary (Subbaro 2013), which involves the awareness of services and facilities provided by the respective financial institution. Besides, access to financial services, knowledge on commercial products and their usage are imperative for sound FI.

Moreover, Bangladesh is one of the emerging economies in South Asia that has shown a keen interest in bringing its population under formal financial network. With a combined and continued effort of the government through the central bank, at present 75 percent of the country's total population has access to the formal financial network. Like other parts of the world, Bangladesh is also advancing on the path with the help of technological innovation. In 2017, the number of mobile money account had experienced a growth of 33 percent, when the same for commercial bank account has been only 8 percent (Bangladesh Bank 2017).

Studies related to FI recognize dimensions of financial exclusion, such as outreach gap, gender gap, income gap, and so on. Generally, rural areas of developing countries often lag in FI due to the remoteness or a weak communication system. However, special attention by public authorities, technological advances, rapid urbanization, and so on has narrowed the rural-urban gap in the financial service sector. Also, an increasing number of internal immigrants from rural areas clogging in city slums are giving birth to another financially excluded stratum. While the area-based exclusion is reducing to a satisfactory level, the gender-based exclusion is still at large. Male domination in economic affairs has forced women to avoid financial institutions for an extended period. Studies reveal women's access to finance has a positive correlation with the improvement of family health, income, and education. Nonetheless, the gender-biased focus of non-governmental organizations (NGOs) and MFIs from the late 1970s and ease of access to finance through technological breakthroughs have influenced women's inclusion in the formal monetary chain. Then, women are slow to adopt technological advances like ownership of mobile phones and internet subscriptions, which again impedes their integration in digital FI.

In any case, FI can be measured by using different indicators such as number or percentage of account ownership, access to Automated Teller Machine (ATM) per 1000 square kilometers, and domestic credit, savings, and investment as percentage of gross domestic product (GDP) (Kim et al. 2018; Neaime and Gaysset 2018). Also, the FI is assessed applying indicators being measured the extent of transactions and usage of financial services in each bank account. As well, the technological advances have opened a new avenue for the measurement of FI. The number of Mobile Financial Service (MFS) accounts, agents, and agent outlets per 100,000 people or per 1000 square kilometers are popular indicators of digital financial integration. Then, the development agencies like the International Monetary Fund (IMF), the United Nations Development Programme (UNDP), and the World Bank have developed separate FI indexes, using distinct methodologies. The FI index used by the IMF summarizes the condition of FI in a particular country by combining geographical outreach and usage trends. By applying the weighted-geometric functional aggregator, the composite index ranks a state from zero to 100, that is to say, from the least financially included state to the highest level of inclusion (Amidzic et al. 2014).

The rest of the chapter is organized as follows: section 'Literature Review' introduces the related literature concentrating on different aspects of FI; research method is in section 'Data and Methods'; section 'FI Condition in Bangladesh' provides a discussion on FI condition in Bangladesh; section 'FI Efforts and Contribution to Inclusive Development' portrays FI efforts with particular contribution to inclusive development; section 'Technological Dimension in FI' scrutinizes the technological dimension in FI; and lastly, section 'Conclusion and Policy Recommendations' concludes the study with some policy implications.

Literature Review

As a part of access to finance, Zins and Weil (2016) identify gender, financial health, educational qualification, and age of the borrowers as determinants of FI in a study on 37 African countries. Wang and Guan (2017) offer a comprehensive discussion on measurement, effect, and influencing factors of FI. Their study identifies income level, education, and use of communication tools, financial depth, and banking health status as explanatory variables to inclusion. In parallel, Loyaza and Ranciere (2006) and Kim et al. (2018) have identified a positive correlation between FI and economic growth. Allen et al. (2016) find that FI results in lower account costs, greater proximity to financial intermediaries, stronger legal rights, and more politically stable environments, and as such setting suitable conditions for development. They reveal that users of financial services are less prone to income shocks and usually their household spending tends not to drop compared to those who do not have financial access (Karlan et al. 2016).

Besides, Koker and Jentzsch (2013) point out that the application of formal financial network, instead of cash-based informal mechanism ensures transparency and reduces corruption of the public system. Since these channels are under continual monitoring of the supervisory body, the possibility of tax evasion, money laundering, and other financial crimes can be reduced largely. Later on, Neaime and Gaysset (2018) use the Generalized Moment Method to identify the impact of FI in the financial stability of the Middle East and North African (MENA) region. The study finds a positive effect of inclusion in reducing income inequality in the region. Moreover, an evolving area of literature has been attributed to analyze FI using technological channels. For instance, Akhter and Khalily (2017) explain the impact of MFS on the FI scenario of Bangladesh. They have identified the positive effect of MFS on FI in the form of reduced transaction cost and service time.

The existing literature, attributed to FI or the impact of FI on development within the South Asian region, is predominantly concentrating on India and Sri Lanka. The study of Iqbal and Sami (2017) investigates the role of the banking sector on inclusion and identifies a positive and significant impact of the number of bank branch and credit-deposit ratio on GDP, but an insignificant effect of the growth of ATMs in India. Similarly, Gatto and Akhtar (2015), Hassan (2015), Yadav and Sharma (2016), Ghosh and Vinod (2017), Lal (2017), and Rastogi (2018) focus solely on the inclusion scenario of India. On the other hand, the study of Tilkaratna (2016) investigates household level data of inclusion and examines the reasons for using the services of multiple financial institutions in Sri Lanka. Among the cross-country studies, the study of Sehrawat and Giri (2016) examines the causal relationship between financial sector development and poverty reduction in South East Asian countries employing modern econometric techniques. In the same way, Arora (2012) covers a detailed three-stage methodological approach to examine the link between financial development and educational development in 21 developing countries of Asia

For Bangladesh, financial innovation and initiatives undertaken by the central bank and support of scheduled commercial banks have a significant impact on accelerating FI. Supported by the national financial strategy, Bangladesh is on the top of the list of highly FI growth countries among its low-income geographical competitors (IMF 2015). However, one-fourth of its adult population still remains unbanked (Akhter and Khalily 2017). Khalily (2016) also examines the structure of the financial market, financial regulation, and financial literacy along with its impact on FI. Using the Logit Regression Technique on the household level data, he identifies a moderate level of financial literacy with a positive impact on inclusive finance in Bangladesh. Siddik et al. (2014) undertake behavioral research with a particular focus on factors influencing behavioral intention to adopt or continue using mobile banking in Bangladesh. Among the 13 analyzed factors, perceived financial cost, perceived risk, and subjective norm are found to be the most influential in shaping people's behavior toward mobile banking.

Evidently, financial exclusion or obstacles to FI has remained a gray area in the financial literature. The socio-economic background of the people becomes the most significant determinant in this regard. This chapter aims to consider that in the context of Bangladesh and tries to link to its development condition. In our view, FI literature should cover the dimensions of financial exclusion, such as outreach gap, gender gap, income gap, and so on. Generally, rural areas of developing countries often lag in terms of FI due to remoteness or poor communication system. On the whole, FI in developing nations is targeted at a weaker section of the population, who involuntarily excludes from the financial chain. It might be hindered by either supply side (financial institution) related barriers or demand side (customer) related obstacles. Financial institutions may impose restrictions on FI through their outreach, inappropriate product design, higher cost of service, and approach to lower-income customers (World Bank 2008, 2018a; Choudhury 2014). So, unlike the above studies, this chapter adopts a comprehensive focus covering the link between FI and different development dimensions of Bangladesh.

Data and Methods

The study has been undertaken to capture the impact of financial access on the development of Bangladesh. The data and feature set are retrieved from different reliable sources like the IMF and World Bank databases. Data specific to FI, for example, ATMs per 100,000 adults, bank branches per 100,000 adults, deposit accounts per 1000 adults, and loan accounts per 1000 adults are calculated based on data extracted from the Financial Access Survey database of IMF (IMF 2018). Measures of financial development such as age dependency ratio, GDP growth, savings rate, consumption growth, and unemployment ratio are retrieved from World Development Indicators database of World Bank (World Bank 2018b); the two indices of inclusion and development, namely the Financial Development Index (FDI) and Financial Institutional Access Index (FINAI) are obtained from the IMF database. The period spans from 2004 to 2017 and for the technological dimension, the sample period covers 2010–17 due to data unavailability. A series of supportive tables and graphs are used to supplement the discussion.

FI Condition in Bangladesh

Initiated by Bangladesh Bank and supported by the government and policy-making authorities, Bangladesh is pacing toward FI of its population since its independence. However, the inclusion effort got momentum in recent decades to match with the global progress in the area. Table 6.1

Table 6.1 An insight to FI condition in Bangladesh from 2004 to 2017

Year	*Deposit account per 1000 adults*[a]	*Depositors per 1000 adults*[a]	*Loan account per 1000 adults*[a]	*Borrowers per 1000 adults*	*Branches per 1000 sq. Km*	*ATMs per 1000 sq. Km*	*ATMs per 100,000 adults*	*Policy holders per 1000 adults*	*Life Insurance Policy holders per 1000 adults*
2004	1252.84	1066.96	794.06	451.92	2654.77	0.88	0.13	28.47	26.08
2005	1389.52	1196.74	894.05	506.47	2738.93	1.41	0.20	34.52	32.07
2006	1511.80	1306.93	989.98	560.04	2864.16	2.54	0.34	37.71	34.91
2007	1483.932	1268.08	1002.57	580.96	2939.28	3.73	0.50	46.09	43.11
2008	1573.69	1335.95	1050.50	607.31	2985.33	6.27	0.82	52.22	49.13
2009	1608.54	1361.90	1048.30	602.09	3134.70	9.73	1.25	57.49	53.83
2010	1789.28	1493.81	1069.93	610.33	3208.55	16.29	2.05	64.90	60.79
2011	1895.18	1767.42	1035.42	576.89	3339.06	29.17	3.60	161.29	152.28
2012	1919.10	1862.56	998.76	556.46	3458.71	32.40	3.92	156.81	147.44
2013	1991.57	1815.92	1020.44	569.47	3478.50	40.51	4.81	154.11	144.42
2014	2059.98	1845.25	1017.53	571.48	3525.55	48.08	5.61	152.35	143.11
2015	2168.79	2078.67	1045.75	595.86	3507.96	60.22	6.89	139.13	128.54
2016	2281.61	2183.61	1088.97	619.66	3378.63	69.29	7.78	136.64	125.45
2017	2400.78	2288.60	1117.24	636.83	3345.65	73.15	8.07	134.41	121.95

Source: Constructed by the authors based on IMF (2018)
Notes: The indicators measure access in any bank or non-bank formal financial institution
[a]Overlapping is possible in calculation of deposit and loan indicators

offers an insight into major FI indicators in Bangladesh from 2004 to 2017 by illustrating popular indicators of inclusion.

The first indicator, deposit account per 1000 adults, is a measure of account penetration by the eligible populace. The table shows that Bangladesh has almost doubled (from 1252.84 to 2400.78) its achievement in account penetration within the last 14 years. The growth has been noted as a gradual progression during the assessment period. Secondly, a similar measure, depositors per 1000 adults shows the proportion of included population out of the total bankable population. Bangladesh has registered the highest growth (18.32 percent) in this indicator from previous fiscal in 2015.

Affordable credit is the following provision for FI. In popular FI literature, a measure of credit access is the loan account per 1000 adults. Bangladesh has been able to register regular growth in loan coverage with a pause in 2011–12. In 2017, the loan account per 1000 adults reached 1117.24, recording 11.86 percent growth in the last five years. Another similar measure, borrower per 1000 adults, offers an overview of loan coverage to all bankable adults. The table also shows that the country had experienced almost 7.07 percent annual growth until 2010, when borrower coverage dropped from 610.33 to 576.89. However, after three consecutive bad years, Bangladesh recovered from this depression to see an increase in the indicator for the last four years.

The indicators discussed so far provide a broad-based overview without focusing on usage or area-based scenario. The next measure, branches per 1000 square kilometers, however, offers an area wise coverage of formal financial institutions. Until 2013, banks and financial institutions, specifically MFIs, were spreading their network to the farthest corner of the country. Nevertheless, the high operational cost of the established network forced the formal financial institutions to rethink their decision. Accordingly, credit unions, financial co-operatives, and other depository corporations stepped back by shutting some branches from 2014, reflecting a decrease in branch coverage.

The next provision for inclusion is payment or transfer facility. ATM technology has made it super easy to withdraw or transfer money from deposit accounts, hence recognized as one of the significant yardsticks for inclusion. In Bangladesh, commercial banks and a few non-bank financial institutions (NBFIs) offer ATM services. For better coverage and customer service, banks have joined the consortium, whereby even small banks without self-ATM service can allow their customers to use their cards in ATM booths of other banks. As shown in Table 6.1, Bangladesh registered an explosive growth in ATMs per 1000 square kilometers, 82.8 times in 13 years. The dataset reveals that from 2004 to 2011, ATM coverage has been increased annually at an average rate of 65 percent. Afterward, the growth normalized with 6 percent to 25 percent yearly growth in the last seven years. This rate can be explained by the already established network, connection to national fund transfer network, and introduction of other more comfortable financial technology, like agent banking. Another measure of ATM usage is ATMs per 100,000 adults. Though ATM usage is still very low, the progress of almost 64.49 times in the last 13 years shows some rays of hope. Debit card facility with every deposit account, low cost or free of cost fund transfer, and growing awareness of financial technologies can be the catalyst for an increase in ATM access and usage.

Lastly, access to insurance is one of the widely accepted measures of inclusion. This section includes two indicators for measurement of insurance: policyholders per 1000 adults and life insurance policyholders per 1000 adults. Both indicators reflect gradual growth up to 2011. However, after 2011, the insurance industry experienced sluggish growth with the largest decline in 2015, when the number of insurance policies declined by 1,181,031 policies from the previous year (IMF 2018). Moreover, life insurance access followed a similar trend, or more precisely, the life insurance coverage registered 19.91 percent decline, while insurance coverage, in general, experienced a 16.67 percent decrease in the last seven years. No noticeable regulatory improvement, as well as the reluctance of general people toward insurance, offer challenges to the inclusion in Bangladesh through insurance.

Financial Exclusion

Nonetheless, the reasons for the exclusion of one-fourth of the population in Bangladesh should be addressed with significant attention. FI literature usually recognizes three primary forms of exclusion, namely area-based, gender-based, and income-based. All three kinds exist in Bangladesh in different proportions. Table 6.2 provides a summary of available statistics on exclusion areas.

Due to remoteness and high operational cost of maintaining small branches at distant locations, private commercial banks are often found unwilling to establish branches in rural areas. NGOs and MFIs have

Table 6.2 Area and gender-based FI in Bangladesh (2004–17)

Year	*Rural branches*	*Rural branches (% of total)*	*Male borrowers per 1000 adults*	*Female borrowers per 1000 adults*	*Deposit accounts owned by men per 1000 adults*	*Deposit accounts owned by women per 1000 adults*	*Male depositors per 1000 adults*	*Female depositors per 1000 adults*	*Loan accounts owned by men per 1000 adults*	*Loan accounts owned by women per 1000 adults*
2004	3724.00	59.10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	3764.00	58.80	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	3834.00	58.40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	3894.00	58.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	3981.00	57.80	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	4136.00	58.30	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	4393.00	57.40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2011	4551.00	57.20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2012	4760.00	57.20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2013	4962.00	57.10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2014	5150.00	57.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2015	5187.00	56.80	39.67	8.76	274.73	117.01	251.18	103.06	41.46	8.83
2016	5360.00	56.70	37.60	8.72	289.81	130.16	254.49	117.57	39.10	9.07
2017	5501.00	56.60	52.80	10.89	458.38	209.02	411.91	192.45	55.17	11.02

Source: Constructed by the authors based on Bangladesh Bank (2011, 2015, 2017) and IMF (2018) stepped into this gap since the late 1970s by spreading their network in remote rural places in tiny community houses or small branch offices with meager operational expenses. However, the ultra-poor and middle class are left unreached either for their inability to initiate income-generating entrepreneurship or their doubt in any financial institutions other than the bank. Cases of irregularities in non-bank financial sectors due to lack of specific regulation are also responsible for such confusion. Nevertheless, the instruction of Bangladesh Bank for commercial banks to make a rural-urban branch network to 1:1 successfully triggered a change. In 2010, the percentage of rural branches of commercial banks in terms of total branches stood at 59.8 percent (Bangladesh Bank 2011). Table 6.2 indicates the number of rural branches has increased gradually over the last decade; however, such progress was not enough to keep the decreasing proportion of rural branches in balance. After more than four decades of continuous attention to rural branch expansion, banking authorities are now concerned with more cost-effective usage of their network. Also, rapid urbanization and internal migration to big cities are making it unnecessary to establish more rural branches. Moreover, such a move is not considered detrimental to inclusion as a successful launching of financial technologies is reducing the outreach gap to a minimal level, even at a lower cost.

Also, a significant gender-based gap exists in FI in Bangladesh. Women are deprived of economic power for long, which results in the exclusion of a significant portion of the bankable population in formal financial chains. However, increased participation in economic activities along with particular attention by policy-making authorities have contributed to bridging the gap. Moreover, the gender-biased focus of NGOs and MFIs and Bangladesh Bank's provision for women entrepreneur's loan have made progress in credit access to female borrowers. Table 6.2 shows that the deposit account holdings by women in commercial banks per 1000 adults are 2.19 times less than that of men in 2017. The gap in the deposit account is ever-widening (157.72 in 2015 and 249.36 in 2017), a point of concern. Nevertheless, the number of female depositors is on the rise, with a reduced gap over the last three years (2.43 times to 2.14 times).

Again, a gender gap exists both in the number of loan accounts and borrowers. While the number of loan account holding of men was 4.69 times higher than their female counterparts in 2015, it went up to 5.00 times after two years. Similarly, the gender gap in the number of borrowers also has been increased by 35.62 percent in the last two years. Though such statistics only cover deposit and loan in commercial banks and leave large gender-biased coverage of MFIs, the banking authority still requires scrutinizing the reasons behind such increasing gender gap even after significant allocation for women borrowers.

Lastly, the income gap is considered to be another major reason for exclusion. Low-income people in Bangladesh often find it difficult to be included in the formal financial network. Reasons for this could be attributed to low or no savings, lack of proper identification for opening account, complex procedure for account opening or credit approval, unfamiliarity with banking procedures, lack of confidence in financial institutions other than the bank, difficulties in fund withdrawal, comfort in cash transactions, and so on. Though no particular statistics are available of this excluded stratum, by analyzing the economic condition of the country, it can be said that a significant income gap persists. The specific attention of NGOs and MFIs along with poverty alleviation programs by national and international entities has contributed to the inclusion of a major portion of low income excluded strata. At present, agent banking facility with its low service charge, easy transaction procedure, and vast outlet network have been successful in accessing this particular excluded group.

Besides the forms of exclusion discussed above, religious exclusion is also prevalent to some extent. About ninety percent of the population in Bangladesh is Muslim, among whom a small portion still excludes themselves from the conventional financial network for religious reasons. Islamic *Sha'riah* (Islamic law) prohibits transactions having any association with *Riba* (interest) causing concerned Muslims to refrain from the regular financial network. Again, another excluded stratum is emerging at present due to rapid internal migration. A large number of slum residents and people with no specific residence in big cities are the members of this group. Though not addressed formally, such group constitutes a significant portion of the excluded population and is difficult to reach. Particular focus and initiative are required to offer financial access to this group.

FI Efforts and Contribution to Inclusive Development

Since the liberation of Bangladesh, the government, Ministry of Finance (MoF), Bangladesh Bank, local government bodies, and development agencies have been working jointly or individually to integrate the entire population in the formal banking network. Nationalization of all banks after liberation was the first step toward that goal. Nationalized banks have been engaged in establishing rural branch network and disbursing rural agricultural credit. Such branches were basically engaged in disbursing crop loans to farmers at regulated rates, which were insufficient to cover the financing cost of rural lending to micro borrowers. Here again, landless illiterate villagers, unable to handle the paperwork, have been left unreached. At the same time, a surge in establishing mutually owned co-operative societies took place. The co-operative movement, though supported by the government for its potential to alleviate poverty, was soon captured by the rural elites. Ironically, the rural elite reaped the initial benefits of government patronage. But they strongly refuted the co-operative initiative, fearing the dilution of their control over the masses.

However, the mid-1970s observed a breakthrough for inclusion from the emergence of Grameen Bank and many similar MFIs. By targeting the poorer segment of the population, such entities have been partially successful in imparting minimal financial literacy, improving awareness to education, and better living standards as well as women empowerment. However, the hardcore poor segment, unwilling to be involved in entrepreneurial activities, remained unreached once again. Also, a 'missing middle' emerged from the MFI movement, who passed the microcredit threshold but not yet eligible for bank loans.

Against this background, Bangladesh Bank started structured FI efforts. In 2010, the central bank instructed all scheduled banks to introduce No Frills Account (NFA) for farmers, garment workers, freedom fighters, social safety net receivers, and other marginal segments of the population for mass financial integration. Such an account enables the account holder to avail free of charge bank account facility by depositing only BDT 10. At present, 17.07 million NFAs are functional in different banks in the country (Bangladesh Bank 2018) with a growth of 92.43 percent in seven years. Besides NFAs, Bangladesh Bank instructed all scheduled banks to introduce school banking and working-children banking since 2010 and 2014, respectively. According to Bangladesh Bank (2018), a total of 15.40 million school-banking accounts have been opened in FY 2018 in all scheduled commercial banks. Moreover, Bangladesh Bank has issued directives to make the rural-urban branch ratio of commercial banks to 1:1 in 2011 for reducing the outreach gap in banking. Another directive issued by the same in 2017, instructs all scheduled banks mandatorily to establish 50 percent of their new branches in rural areas. As of 2017, the percentage of rural branches to total commercial bank branches stood at 52.80 percent.

Bangladesh Bank has been acting through issuing regulations, and offering refinances for such credits to affect the FI situation. In 2009, Bangladesh Bank introduced BDT 5 billion refinance scheme for agricultural credit to landless sharecroppers (Bangladesh Bank 2012). Up to 2013, BDT 5770 million was disbursed to 481,000 sharecroppers under this scheme (Bangladesh Bank 2012). To reduce the gender gap in lending, the central bank issued directives for the introduction of women entrepreneur loans in 2010. A refinance fund is also introduced in 2014 under this scheme, whereby women entrepreneurs can avail 100 percent of manufacturing loans. Moreover, 15 percent of small and medium enterprise (SME) credit is allocated for women entrepreneurs since 2014. In a circular issued in February 2015, Bangladesh Bank directed all scheduled banks to initiate the Women Entrepreneur Development Unit for better service to female entrepreneurs (see Table 6.5 in the Appendix).

Besides the issuance of such directives for access to deposit and credit facility, the central bank initiated a few financial literacy programs individually and through scheduled banks. Such initiatives include joint projects with the Ministry of Education, social media marketing, educative commercials, and so on. Also, directives are issued to all scheduled banks for offering minimal financial education to their customers through informative brochures, posters, and interactions. Moreover, the introduction of financial technologies, like ATM in 1994, online banking in 2009, mobile banking in 2011, and agent banking in 2014, are regarded as milestones for FI in Bangladesh.

Nonetheless, including the entire population in the formal financial chain itself is not enough. Rather, it should be done in a sustainable way directed and aligned toward the socio-economic development of the included populace. Academics, development agencies, and policymakers affirm a positive correlation of FI with growth. Using comparative development statistics of the World Bank and IMF, the developmental effects of chronological FI efforts starting from 2010 have been portrayed in Table 6.3 for the period of 2004–17.

Four more parameters of development are shown in Table 6.3. Firstly, the GDP growth rate refers to the annual growth rate of the total marketable goods and services produced in a particular period in a specific region.

Table 6.3 Development condition of Bangladesh (2004–17)

Year	*FDI in %*	*FINAI in %*	*Real GDP growth rate (% change)*	*Age dependency ratio*	*Savings (% of GDP)*	*Household consumption Growth*
2004	14.25	7.79	6.1	64.37	21.19	5.97
2005	14.22	7.76	6.3	63.13	21.06	6.73
2006	12.48	7.87	6.9	62.24	21.44	7.05
2007	13.58	7.98	6.5	61.29	20.75	7.43
2008	17.21	8.18	5.5	60.29	19.19	3.98
2009	17.73	8.61	5.3	59.27	20.33	2.29
2010	19.03	9.27	6.0	58.24	20.81	4.60
2011	18.21	10.20	6.5	57.07	20.62	6.49
2012	16.54	10.57	6.3	55.97	21.22	4.11
2013	18.03	11.17	6.0	54.89	22.04	5.13
2014	17.93	11.75	6.3	53.76	22.09	4.01
2015	18.06	12.50	6.8	52.58	22.16	5.82
2016	17.93	13.00	7.2	51.47	24.98	3.00
2017	n/a	n/a	7.1	50.30	25.33	7.43

Source: Constructed by the authors based on Bangladesh Bank (2018), IMF (2018) and World Bank (2018b)

As shown in Table 6.3, the GDP growth rate indicates an interesting data pattern with the highest growth rate from previous fiscal registered in 2010 (FI initiation year). Besides, the second-highest growth rate (7.94 percent) from previous fiscal in post FI initiation period recorded in another milestone year 2014 (agent banking initiation year), points to an association between development condition and FI efforts in Bangladesh. Nonetheless, the age dependency ratio refers to an age-population ratio and provides the proportion of dependent (aged 0 to14 and above 65) and working (aged 15 to 64) residents. It measures monetary strain on employed inhabitants, and for the sample period, it ranges from 50.30 to 64.37. Age dependency declines annually by 2.04 percent after 2010 compared to a yearly average growth rate of 1.88 percent, clearly evidencing a significant improvement in the FI initiation period. Moreover, consumption growth indicates the annual percentage change in household consumption. Though the consumption growth is influenced by many macroeconomic factors other than inclusion, the average growth rate of 31.53 percent from (2010–17) compared to a negative growth rate of 13.19 percent in the pre-initiation period definitely shows the path. Lastly, the savings parameter refers to the percentage of savings in terms of

GDP. The highest yearly growth is recorded in 2015 (12.72 percent), when all major financial technologies, including ATMs, mobile banking, agent banking, and online banking, are in force. Also, the yearly growth rate of 2.86 percent from 2010 to 2017 indicates better saving capacity compared to the pre-FI initiation period (negative yearly growth rate of 0.72 percent), establishing a vital link between FI and development condition of the country. Figure 6.1 summarizes the above discussions highlighting the relationship between FI initiatives and the development scenario of Bangladesh.

Figure 6.2 displays FDI and FINAI for Bangladesh from 2004 to 2016. FINAI is a composite index developed by IMF to measure the inclusion condition of a region. The figure shows that Bangladesh has been experiencing a gradual improvement in FI for the last twelve years except in 2005. From 2004 to 2009, the FINAI has registered an average growth rate of 2.04 percent, while the rate reached a yearly average of 6.07 percent

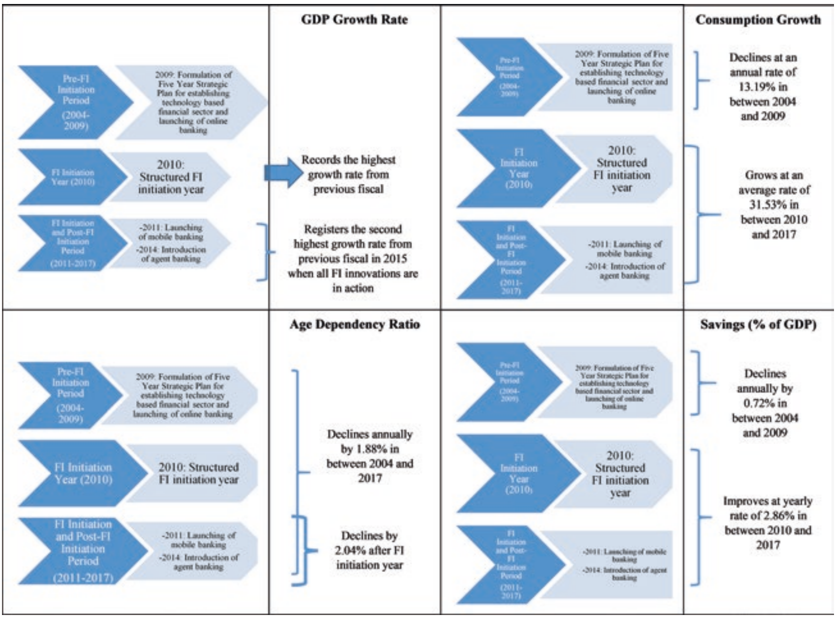
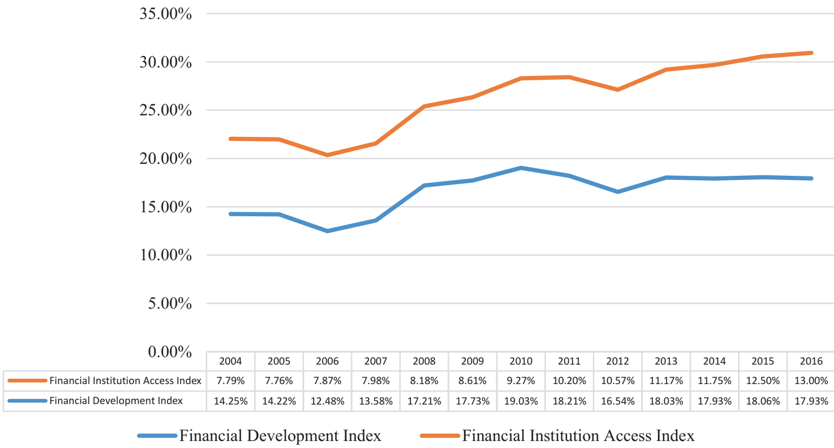


Fig. 6.1 Relationship between FI initiative and development. (Source: Constructed by the authors)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Financial Institution Access Index	7.79%	7.76%	7.87%	7.98%	8.18%	8.61%	9.27%	10.20%	10.57%	11.17%	11.75%	12.50%	13.00%
Financial Development Index	14.25%	14.22%	12.48%	13.58%	17.21%	17.73%	19.03%	18.21%	16.54%	18.03%	17.93%	18.06%	17.93%

Fig. 6.2 Comparative analysis of FDI and FINAI from 2004–16. (Source: Constructed by the authors based on IMF 2018)

since 2010. At the same time, the FDI shows a much fluctuated trend. Though FDI stands at a better position with 25.86 percent growth in the last twelve years, the path of progression has not been smooth and no footprint of time is clear with inclusion efforts. A growth rate of 7.34 percent in FDI is recorded in 2010 (FI initiation year) from that of previous fiscal. However, the yearly average growth rate of 5.22 percent in the pre-FI initiation period (2004 to 2009) compared to only 0.33 percent of the post-initiation period (2010–16) is a concern for policymakers trying to align FI efforts with development goals.

Technological Dimension in FI

The journey toward the path of financial technology in Bangladesh began in 1994 with the installation of first-ever ATM by Standard Chartered Bank, one of the foreign-owned commercial banks. At present, the country is advancing in line with the rest of the world through extensive usage of innovative financial technologies, like online banking, mobile banking, and agent banking.

In 2009, Bangladesh Bank formulated a five-year strategic plan (2010–14) to develop an information technology-based financial sector. Consequently, Bangladesh Automated Clearing House (BACH), Bangladesh Electronic Fund Transfer Network (BEFTN), and Real-Time Gross Settlement (RTGS) came into operation to make inter-bank fund transfer easier and faster. In the same year, commercial banks initiated online banking services on a small scale. Online banking, internet banking, or any-branch banking allows a user to avail of essential banking services, like fund transfer, balance query, and account statement request through internet service. Currently, 75.10 percent (Table 6.4) of all commercial banking branches offer online banking services at an annual charge of BDT 0 to BDT 300. According to Bangladesh Telecommunication Regulatory Commission (BTRC 2018), the number of active internet subscribers is recorded at 80.48 million in 2017. The growing usage of the internet can trigger the inclusion of the excluded population in the active financial chain at a very low cost.

Moreover, mobile banking, initiated in 2011, offers the most popular tool for digital financial integration. With very little paperwork, a mobile money account can be opened free of cost at nearby small agent outlets or staying at home. Such accounts offer cash out, cash payment, fund transfer, mobile recharge, bill payment, and balance inquiry facilities with a low charge from the mobile phone. Due to the ease of operation and minimal financial literacy requirement, mobile banking has experienced explosive growth of 2924.17 times in its six years of operation. In 2017, more than 1875.64 million transactions were recorded in 481,081 mobile money outlets (Bangladesh Bank 2018). The rapid growth of mobile technology, availability of mobile phones, lack of banking paperwork, and easy procedure of mobile banking have appealed to all classes of the population. As such, 14.48 percent of mobile phone users have a mobile money account presenting a lucrative opportunity for mass digital integration feasibly.

The introduction of agent banking was an epoch-making financial technology innovation in the banking sector. Since 2014, agent banking allows commercial banks to serve customers in distant places without setting up costly branch offices. The commercial banks, under the agent banking guidelines (Table 6.5 in the Appendix) issued by Bangladesh Bank, permit local retail agents to offer small-scale banking services to agent banking account holders. Such an account allows cash withdrawal and deposit, fund transfer, bill payment, and remittance withdrawal, incurring a small charge. As of FY 2018, 1.78 million agent banking accounts have been functional under 4136 retail agent outlets. Moreover, BDT 35.14 billion worth of remittances had been withdrawn using agent banking channels (Bangladesh Bank 2018).

Table 6.4 Digital financial integration from 2010 to 2017

Year	*Number of ATMs*	*Number of cards*	*Active mobile money accounts*	*Mobile money agent outlet*	*Mobile money transactions: number*	*Non-branch retail agent outlets*	*Agent banking account**	*Online banking branches*
2010	2121	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2011	3797	n/a	7,186.00	2551.00	229,592.00	n/a	n/a	n/a
2012	4217	n/a	524,970.00	20,822.00	9,944,688.00	n/a	n/a	n/a
2013	5273	n/a	4,892,646.00	131,829.00	228,977,230.00	n/a	n/a	47.00
2014	6259	8.42	9,498,627.00	240,213.00	547,601,792.00	118.00	n/a	51.90
2015	7839	9.24	12,793,758.00	243,042.00	1,239,144,775.00	448.00	0.26	68.10
2016	9019	10.89	15,799,130.00	355,778.00	1,471,277,139.00	1710.00	0.54	72.70
2017	9522	12.56	21,013,056.00	481,081.00	1,875,640,183.00	4136.00	0.87	75.10

Source: Constructed by the authors based on Bangladesh Bank (2018), IMF (2018), and World Bank (2018b)
Notes: Number of cards are in million. Online banking branches are in %
*Agent banking accounts are in million

Such growing usage of financial technologies presents vast potential for FI in a sustainable way and at a reduced cost. A large portion of the population excluding themselves from the formal financial chain for the remoteness of the location, unfamiliarity with banking procedure, and high charge of banking now find it comfortable to do transactions using their agent banking or mobile banking account. Women who used to avoid banking channels for distance and social taboo can smoothly perform agent banking transactions from their house or nearby retail outlets. With the growing popularity of mobile money accounts involving small processing fees and widespread agent networks, people of different income groups, particularly the low-income group, are becoming interested in banking. Currently, 95 percent of the population in Bangladesh is mobile phone users, while only 75 percent of the population is included in the formal financial chain (BTRC 2018). Such statistics show hope to policymakers for using mobile phones as a possible digital FI tool in mobile banking and agent banking. However, the agent banking money transfer charges are still very high compared to formal banking fund transfer charges. Moreover, the security issue in using financial technology needs to be addressed as only a small portion of our population is financially literate.

Conclusion and Policy Recommendations

The journey of Bangladesh from a 'bottomless basket' to one of the monetarily powerful economies has been supported by integrating income from all levels of the population. Various initiatives established Bangladesh as the highest financially supportive country among low-income countries, covering 75 percent of its population in the formal financial chain. In line with the growing interest in FI worldwide, the government of Bangladesh has combined its effort to structure the inclusion agenda. Also, the robust growth of financial technology, especially agent banking, internet banking, and mobile banking services, has shown an avenue to reach the unbanked in a cost-effective and sustainable way. Keeping the explosive growth in financial access and financial innovation in consideration, this chapter aimed at exploring the FI scenario in Bangladesh with a specific focus on its contribution to development. Discussions on FI parameters, chronological FI efforts, and their impacts on development indicators were conducted. Finally, the technological dimension of FI, along with its potential to include the unbanked in the formal financial chain in a cost-effective way, has been covered.

The study suggests Bangladesh has impressively advanced to offer access to deposit and credit facilities with a significant link to development indicators. Again, groundbreaking progress in financial technology in the last seven years indicates the potential of such FI channels for the inclusion of the unbanked in a feasible way. However, decreasing the rural branch ratio, the ever-widening gender gap in inclusion, and continually declining insurance policy may hinder the success in financial integration.

A few policy recommendations can be offered. Since the growth of deposit accounts, loan availability, and the branch network establishment is found satisfactory, the disadvantaged and marginal excluded segment should be targeted instead of the broad-based increase goal. The growth in card-based payment is still very low for lack of financial literacy in operating ATMs. Commercial banks need to consider imparting minimum ATM usage knowledge to their customers for offering quicker fund transfer facility. Reasons for subsequent fall in insurance policy holding should be identified, and provision for micro-insurance should be introduced on a large scale. While targeting the existing inclusion gaps, the possibility of FI technological exclusion should also require to be considered. Moreover, the female-biased inclusion initiatives are highly recommended for putting a stop to ever-widening gender gaps. Also, the *Sha'riah* based FI mechanism should be employed to reach the religiously excluded strata. Well-structured initiatives from the concerned authorities, namely MoF and Bangladesh Bank, are suggested to link the impact of inclusion aligned with poverty alleviation, equality, economic growth, and quality education. Likewise, financial innovations in Bangladesh should be affiliated with mainstream financial institutions to reach all segments of the population through a formal and safer channel.

Appendix

Table 6.5 List of directives issued by Bangladesh Bank

Provision of NFA issued in January, 2010
Farmers, readymade garment workers, underprivileged segment of population, and beneficiaries of social safety net programs are eligible to open NFA account with only BDT 10 as initial deposit in any state-owned commercial bank or financial institution, and scheduled private commercial banks involving no service charge.
Guidelines on MFS for the banks issued vide DCMPS (PSD) circular letter no.11 on December 20, 2011
Bangladesh Bank has approved some basic MFS, including inward remittance disbursement, cash in or cash-out, and cash payment through own mobile money account for FI of the unbanked.
Comprehensive guidelines on School Banking issued in 2013 through GBCRD circular no. 7
Bangladesh Bank advised all scheduled banks to start school banking from 2010 to broaden and deepen base of FI, including students aged under 18. Any student aged between 6 and 18 years can open school-bank account operated through parents or legal guardians with a minimum initial deposit of BDT 100, without charging any service fees other than government charges. As soon as account holder is of age, the account will be converted into a regular savings account.
Guidelines on Agent Banking for the banks issued vide PSD Circular no. 05 on December 09, 2013
Agent banking presents safe, secure, and smooth alternative delivery channel of financial services for the non-privileged, underserved, and poor segment of the population, especially from geographically remote locations where branch establishment is extremely difficult or infeasible. An agent offers some basic banking services, including cash deposit, withdrawal, fund transfer, and bill payment complying regulatory issues, infrastructure requirement, customer protection arrangements, and risk mitigation issues as per the guideline.
Banking for Working/Street Children introduced in March, 2014
All banks are advised to open custodial accounts with NGOs by depositing minimum BDT 10 as initial balance without any service charge or fees. By signing bilateral agreements, NGOs agree to be fully responsible for co-operation between the bank and clients.
Refinance scheme for BDT 10 account holders introduced in May, 2014
To ensure FI of underprivileged, a revolving refinance fund of BDT 2 billion has been introduced with the highest limit of refinancing facility of BDT 50,000 under this scheme, offering interest subsidy provided by participating banks under certain conditions.
Guidance note for approval and operation of Agent Banking activities for banks issued in June, 2014
The guidance note provides a clear framework covering approval requirements, agent selection, and approval procedure of launching agent banking. Banks are instructed to maintain the ratio of rural and urban outlets to 2:1 for ensuring inclusive growth.

(*continued*)

Table 6.5 (continued)

Initiatives on Financial Education introduced in 2014
Bangladesh Bank has undertaken the following initiatives to promote financial literacy:
- Development of a web-link titled ‘Financial Literacy’ in Bangladesh Bank webpage
- Creation of a dynamic and interactive web portal
- Broadcasting of television and radio commercials, and awareness-creating press layouts
- Joint project with the Ministry of Education to conduct Financial Literacy and Education (FLE) program at school and college levels.

Circular on the establishment of ‘Women Entrepreneur Development Unit’ issued in February, 2015
- All scheduled banks and financial institutions are instructed to open ‘Women Entrepreneur Development Unit’ for providing all sorts of services to women entrepreneurs on a priority basis and more effectively and efficiently through dedicated desk/help desk.
- Appointment of women officials in ‘Women Entrepreneur Development Unit’ has been given priority.

Guidelines for Banks on Financial Literacy issued in 2014
Banks are instructed for designating focal point/contact person in each bank for financial literacy issues, developing descriptions of bank’s products and services in simple language, developing an interest calculator, constructing a page containing frequently asked questions, and option for query and complaints.

Refinance Scheme for Women Entrepreneurs issued in 2014 and updated in each fiscal year
- Banks are required to reserve 15 percent of total SME funds exclusively for women entrepreneurs at a lending rate within 9 percent (bank rate + maximum 4 percent spread) for women entrepreneurs under the scheme;
- Banks and NBFIs are instructed to sanction at least BDT 2.5 million to women entrepreneurs with a personal guarantee but without collateral under refinance facilities.

Amendment to BDT 10 Refinance Scheme issued in January, 2016
All scheduled banks have been instructed to comply with the following procedures to bring dynamism in the disbursement and recovery process:
Banks may determine one or more installments in its sole discretion to recover entire loan in case of a loan disbursed directly to the consumer level for sectors stated in the agricultural credit policies. For disbursement of up to BDT 50,000 under this scheme, no credit information bureau (CIB) report will be required.

Agricultural and Rural Credit Policy and Program issued for the fiscal year 2017 issued in July, 2016
- Scheduled banks can disburse agriculture and rural credit through their agent banking channels in addition to ongoing agricultural credit program.
- Receipt of loan applications, primary scrutiny, disbursement, and collection can be made through agents, while loan appraisal, approval, and supervision should be conducted by the respective bank and a maximum 0.5 percent service charge can be credited to agents’ account from borrower’s account through the bank.

Instruction on setting sustainable finance unit in all scheduled banks issued in December, 2016

(*continued*)

Table 6.5 (continued)

All banks and financial institutions are instructed to open a separate unit in the head office to ensure corporate social responsibility (CSR) activities to support the achievement of sustainable developments goals (SDGs). A committee is to be formed in each bank led by seniormost deputy-managing director to supervise planning and monitoring of sustainable banking related activities.
Maximum ceiling for Agricultural and Rural Credit issued in June, 2017
Maximum lending rate for agricultural and rural credit is set at 9 percent effective from July, 2017.
Prudential guidelines for Agent Banking operation in Bangladesh issued in September, 2017
The guideline covers operational aspects of agent banking, including approval procedure, contractual area and permissible activities, the responsibilities of banks, and the agent assessment process not stated in previous guidelines and guidance notes.

Source: Constructed by the authors based on different orders and statues issued by Bangladesh Bank and various annual reports of Bangladesh Bank

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