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Financial Inclusion in Bangladesh-Status and Issues

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Abstract

Financial inclusion is emerging as a new paradigm of economic growth that plays a major role in driving away the poverty from the country. It refers to the delivery of banking services to masses including privileged and disadvantaged people at an affordable terms and conditions. In the current scenario, financial institutions are the robust pillars of progress, economic growth and development of the country. The present study aims to examine the role of financial institutions in financial inclusion in Bangladesh. The study also has examined the impact of financial inclusion on the growth of the economy over a period of seven years. The study has also identified the barriers of financial inclusion from demand and supply side. Finally the study has found out the major drivers of financial inclusion by applying Factor Analysis Technique. Both primary and secondary data have been used in the study. Results of the study found positive and significant impact of number of bank branch and credit deposit ratio on GDP of the country, where as an insignificant impact have observed in case of ATM growth on GDP of the economy.

Keywords: Financial Inclusion, Banking Sector, GDP, ATMS, Credit Deposit Ratio.

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INTRODUCTION

Financial inclusion means the delivery of financial services, including banking services and credit at an affordable cost to the vast sections of disadvantaged and low-income groups who tend to be excluding. Financial inclusion takes into account the participations of vulnerable groups such as weaker sections of the society and low income groups based on the extent of their access to financial services such as savings and payment account, credit, insurance, pensions etc. (Singh et al. 2014).

The different financial services include access to savings, loans, insurance, payment and remittance facilities offered by the formal financial system. This aspect of financial inclusion is of vital importance in providing economic security to individuals and families (Kelkar, 2014)

Financial inclusion is defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost (Rangarojan, 2008), in the report of the Committee on financial inclusion in India. During April 2012 World Bank carried out a study which revealed that only 9 percent individuals avails new loans from banks in the previous year and 35 percent population are having formal bank accounts in India, where as in the case of developing economics it is 41 percent.

Financial inclusion is the process ensuring access to appropriate financial products and services needed by all sections of society including vulnerable groups such as weaker sections and low income groups at an affordable cost in a fair and transparent manner by mainstream institutional players (Chakraborty, 2013). The aim of financial Inclusion (FI) is to make easy access of financial services to the large underprivileged population of the country. It is an attempt for achieving inclusive growth, of the society by making availability of finance to the deprived section of population.

LITERATURE REVIEW

Joseph and varghese (2014) analyzed the effect of financial inclusion on the development of Indian economy by bank growth rate in terms of number of bank branches, usage of debit card and credit cards. It has been observed that the usage of debit cards increased tremendously throughout the study period and decreased the number of people with access to the products and services offered by the banking system continues to be very limited, even years after introduction of inclusive banking initiatives in the country.

Ravikumar (2010) has attempted to assess the role of banking sector in financial inclusion process from different viewpoints namely branch penetration, ATM penetration, population per branch, distribution of banking branches, credits deposits of SCBs and Co-operative banks in India. This study revealed that banking is a key driver for financial inclusion/inclusive growth but large proportion of population excluded from the formal financial system also show higher poverty ratios and higher inequality.

Paramasiven and Ganesh Kumar (2013) discussed the overview of financial inclusion in India and concluded that branch density has a significant impact on financial inclusion.

Julie (2013) analyzed the relationship between financial inclusion and economic growth in Kenya and found that both have a strong positive relationship. Economic growth has a strong positive relationship with branch networks and a weak positive relationship with the number of mobile money users/accounts. The study also concluded the weak negative relationship with the number of automated teller machines in the country and a strong negative relationship with the bank lending interest rates. Study conducted in India by Kamboj (2014) found out the positive relationship between number of bank branches network and number of ATMs in the country with the GDP growth rate of the country.

Many studies (Aghian & Balton, 1997, Banarjee & Newman, 1993. Banarjee, 2001) discussed that access to finance has been seen as a critical factor in enabling people to transform their production, employment activities and to exit poverty. Dangi and Kuman (2013) examined the initiatives and policy measures taken by RBI and Government in India. This study also focused on current status and future prospects of Financial inclusion India. It has been concluded that financial inclusion shows progressive and valuable changes but sufficient provisions should be incorporated in the business model to certify that the poor are not driven away from banking. Suryanarayana (2008) focused on definition of inclusion/ exclusion with reference to an outcome scenario for broad-based growth as reflected in estimates of production, income and consumption distribution. The study helps in drawing a sketch of Occupational social, regional profiles of the excluded in the mainstream growth process.

Hanning and Jansen (2010) argued that greater FI presents opportunities to enhance financial stability.

Sarma and Pais (20011), attempt to examine the relationship between financial inclusion and development by empirically identity specific factors that are associated with the level of FI. It finds that levels of human development and FI in a country are interrelated with each other.

Study made by Allen et.al. (2012) found that greater FI is associated with a better enabling environment to access financial services. Some studies tried to find out the barriers to wider FI. Beck, et al. (2008) study developed new indicators of barriers to banking services around the world by collecting information from 209 banks in 62 countries. The study conducted by Demirgue-Kunt and Klapper (2013), identified barriers to FI and argued that well-functioning financial systems serve a vital purpose offering savings, payment, credit and risk management products to people with a range of needs. More inclusive financial systems allow broad access to appropriate financial services to benefit poor people and other disadvantaged groups.

OBJECTIVES OF THE STUDY

The objectives of the study cover the following:

1. To examine the present financial inclusion status.
2. To investigate the relationship between financial inclusion and economic growth.
3. To identify the barriers of financial inclusion both from demand side and supply side.
4. To examine the major drivers of financial inclusion for inclusive growth.

RESEARCH METHODOLOGY

Both primary and secondary data have been used in the study. Primary data were collected from Bank executives and borrowers of different banks through structured questionnaire. For this purpose 10 banks of third generation banks have been selected. As well as 50 bank executives and 50 borrowers have been selected for collection of primary data regarding barriers of financial inclusion and major drivers of financial inclusion for inclusive growth. The period under consideration for the study is eight years from 2007-2008 to 2013-2015. Multiple regression analysis has been used to establish on empirical relationship between financial inclusion and growth of the country. The present study has taken Gross Domestic product (GDP) as a dependent variable and independent variables are Number of Bank Branches in the country, ATMs growth rate across the country and credit deposit ratio as suggested by Iqbal and Sami(2016),

$$Y= bo + b_1 X_1 + b_2 X_2 + b_3 X_3 + e$$

Where, Y = Gross Domestic Product (GDP)

X1 = Number of Bank Branches

X2= ATMs growth rate.

X3 = Credit Deposit rate.

HYPOTHESIS OF THE STUDY

On the basis of the objectives of the study the following hypothesis has been formulated:

Ho1: There is no significant impact of financial inclusion on the growth of Bangladesh economy.

HA1: There is a significant impact of financial inclusion on the growth of Bangladesh economy.

Sub-hypothesis:

Ho1.1 There is no significant impact of number of bank branches on GDP.

HA1.1 There is a significant impact of number of bank branches on GDP.

Ho1.2. There is no significant impact of ATM growth on GDP.

HA1.2: There is a significant impact of ATM growth on GDP.

Ho1.3: There is no significant impact of credit deposit ratio on GDP.

HA1.3: There is a significant impact of credit deposit ratio on GDP.

PRESENT FINANCIAL INCLUSION STATUS

Access to Banks:

The Banking sector plays an important role in the economy of Bangladesh. Access to formal banking services consists of savings, credit, digital payment services and mobile bank account. From the following table (1) we can observe that although the number of bank branches has increased substantially over the years, the ratio of rural branches with urban branches has declined over the years. The existing rural-urban distribution of bank branches suggests that banks are largely concentrated in the urban areas. Both bank advances and deposits have increased in urban and rural areas over the last two decades. The Table-1 (Appendix-1) shows a declining share of rural advances which indicates that the banks tend to lend more in urban areas.

From the above table -2, (Appendix-2) the trends in geographical and demographic penetration indicate that the access to banking services is rising rapidly. The number of borrower, number of deposit account and number of loan account all has raised significantly over the years. Deposit to GDP ratio has increased significantly compared to credit to GDP ratio.

The access to financial services through the MFIs is remarkable in Bangladesh. (table-3, Appendix-3)MFIs play a significant role in deepening of financial inclusion. MFIs have been offering financial services to larger population, poor, non-poor, rural and urban. Access to micro finance includes savings, credit and micro insurance to some content.

The table -4 (Appendix-4) showing financial inclusion indicators of co-operatives proves the importance of co-operatives in expanding financial inclusion. As they are membership based, members are obliged to save before they can borrow. As a result, they are highly capital constrained. However, it is very useful for the poor people and small savers to mobilize savings and take loan in emergencies.

The initiation of mobile banking is one of net worthy advancements in banking sector. It is the most responsive inclusionary measure in the financial sector of our country. The table-5 (Appendix-5) shows the progress of MFs & within 4 years of commencement. The country wide coverage of mobile operation networks and the rapid growth of mobile phone users have made that delivery channel an important tool-of the trade for extending banking services to the unbanked population.

Impact of Financial Inclusion on Economic Growth

The table-7 (Appendix-7) indicates the model summary of multiple regression analysis which carried out through SPSS. The result of the Model shows that the value of R is .95 which indicates a high correlation between dependent variable (GDP) and independent variables. The value of R square is .980, and Adjusted R square is .970. The P value of the model is .002 which is less than .05 indicating that the regression model is statistically significant and a fit model. The value of the Durbin-Watson test less than one or greater than three is not acceptable, as a rule of thumb and is an indication of auto correlation problem. The model summary displays the value of Durbin-Watson statistics 1.56 which is free from auto correlation problem.

It is revealed that credit deposit ratio shows beta value of 134216.34 which shows a positive impact on dependent variable. The P value of credit deposit ratio is .027 which is less than .05, which indicates a significant impact on GDP. As a rule of thumb is the VIF values more than 10 are not accountable and shown a sign of multi co linearity. The regression model is free from multi co-llinearity as all VIF values are less than 10 for all of the explanatory variables. The following regression equation was obtained.

$y = - 12056.96 + 78.924 \times X1 - 4736.28 \times X2 + 134216.34 \times X3 + e$.

Therefore, the study finds a vigorous relationship between economic growth and financial inclusion indicators. These findings are consistent with the findings of Julie (2013) who established that financial sector plays a crucial role in economic development.

Table-7 (Appendix-7) illustrates the results of regression analysis for GDP and financial inclusion indicators it to be noted that financial inclusion variables include number of bank branches, ATMs growth in the country and credit Deposit Ratio. Results of multiple regression reveal that the beta value of Number of bank branches is 78.924 which shows a positive impact on GDP. The P values .001 which is less than .05 at 5% level of significance, which indicates that there is a statistically significant impact on GDP. It further reveals that the beta value of ATM growth is 4736.28 and P value is .570 which shows a negative insignificant impact on GDP, as the P value is more than .05.

Barriers of Financial Inclusion:

The following table shows the sample respondents response about barriers of financial inclusion:

Drivers of Financial Inclusion for Inclusive Growth (Factor Analysis)

Principal Component Analysis

The factor analysis technique has been applied to examine the major drivers of financial inclusion for inclusive growth. The factor matrix as obtained in the principal component analysis has also been further subjected to Varimax Rotation. An examination of Eigen values has led to the retention of 5 factors. These factors have accounted for 22.224%, 18.12%, 15.36%, 13.98%, 10.12% of variation. This implies that the total variance accounted for by all five factors is 79.26% and the remaining variance is explained by other factors.

Analysis of Major Drivers

Factor-I (Appendix-9) explains 22.224 percent of the total variations existing in the variable set. This includes variables-X_1, X_4, X_5, X_{12} and X_{10}. This factor loadings on these variables which have formed a major cluster. This factor belongs to Various types of banking service (branch, ATM, and agent), Improved bank and market level infrastructure, Coverage of rural area, Effective supporting institutions, Broader scope of business correspondents. So it provides a basis for conceptualization of a dimension which may be identified as Spreading the Bank Network Factor.

Factor-II (Appendix-10) explains 18.12 percent of the total variations existing in the variable set. This includes variables-X_3, X_7, X_{16}, X_{18} and X_{122}. This factor loading on these variables which have formed a major cluster. This factor belong digital products and services, exploring beyond the branch based approach, use of appropriate technology,, enhanced digital functionally, leveraging digital channels. So it provides a basis for conceptualization of a dimension which may be identified as Technology Solution Factor.

Factor-III (Appendisx-11) explains 15.36 percent of the total variations existing in the variable set. This includes variables-X_{14}, X_{13}, X_{19} and $X1_7$. This factor loadings on these variables which have formed a major cluster. This factor belongs to customized schemes/products, equitable distribution of banking services, specialized products for unbanked groups, focus on-bottom-of-the pyramid customers. So it provides a basis for conceptualization of a dimension which may be identified as Targeting the Neglected Niches Factor.

Factor-IV (Appendix-12) explains 13.98 percent of the total variations existing in the variable set. This includes variables-$X1_{11}$, $X1_{18}$, X_{20} and X_{21}. This factor loadings on these variables which have formed a major cluster. This factor belong to innovation friendly regulations, low transaction fee, verifiable targets, easy documentation. So it provides a basis for conceptualization of a dimension which may be identified as Regulatory support Factor.

Factor-V (Appendix-13) explains 10.12 percent of the total variations existing in the variable set. This includes variables-X_2, X_6, X_8 and X_9. This factor loading on these variables which have formed a major cluster. This factor belongs to Awareness generation, Financial and banking literacy, Building customer trust through ethical banking, Improvement in quality of talent. So it provides a basis for conceptualization of a dimension which may be identified as Building Trust and Awareness Factor.

CONCLUSION

Financial inclusion is the process of ensuring access to appropriate financial products and services needed by all sections of the society in general and vulnerable groups such as weaker sections and low income groups in particular at an affordable cost in a fair and transparent manner by mainstream institutional players. The financial services include the entire gamut savings, loans, insurance, credit payments etc. By providing these services, the aim is to help them come out of poverty.

The study reveals that execution of financial inclusion will require on approach in totally on the part of the banks in creating awareness about financial products, educating and advice on money management, debt counseling, savings and affordable credit. The bank would have to evolve specific strategies to expand the outreach of their services in order to promote financial inclusion. One of the ways in which this can be achieved in a cost effective manner is through forging linkages with micro finance institutions and local communities. Banks should give wide publicity to the facility of zero balance account.

Technology can be a very valuable tool in remote areas. ATM, cash dispensing, machines can be modified suitably to make them user friendly for people who are illiterate, less educated or do not know English. Banks would need to redesign their business strategies to promote financial inclusion of low income group treating it both a business opportunity as well as a corporate social responsibility.

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Appendix-1 Table-1Trend in Branch, Deposit and Advances by Region 2000-2015

Year	No. of Branches			Amount of Deposit in Billion Tk.		Amount Advances in Billion Tk.		Advances Deposit	
	Rural	Urban	Total	Rural	Urban	Rural	Urban	Rural	Urban
2000	3659	3460	6119	160.6	549.2	100.1	493.5	62.3	89.9
2005	3764	2638	6402	218.3	1197.6	117.6	999.7	53.84	83.5
2010	4393	3265	7658	436.6	2842.3	206.9	2367.5	47.4	80.5
2012	4760	3562	8322	853.1	4011.0	405.6	3453.7	47.5	86
2014	5750	3890	9040	1326	5605.3	505.1	4571.2	38.00	81.6
2015	5334	4063	9397	1575.1	6364.7	571.3	5227.3	36.2	82.1

Source: Bangladesh Bank, Annual Report 2014-15

Appendix-2 Table-2 Financial Inclusion Indicators in Banks

Year	ATM Per 100 km	ATM Per 100,000 adults	Branches Per 1000 km	Branches Per 100,000	Branches Per 100,000 adults	Deposit A/C Per 1000, adults	Loan A/C Per 1000 adults	Deposit to GDP Ratio	Loan GDP Ratio
2004	0.8	0.13	48.81	6.94	63.86	342.34	88.78	35.78	28.37
2006	2.54	0.35	50.8	6.92	66.61	362.95	91.92	39.18	32.02
2008	6.27	0.82	53.39	7.01	66.57	389.45	86.99	41.51	33.18
2010	16.29	2.06	59.06	7.47	66.73	494.07	88.81	46.89	39.10
2012	46.99	5.71	64.75	7.87	85.37	562.06	90.89	51.22	41.50
2014	79.31	9.27	70.47	8.23	81.62	628.87	86.72	51.46	37.30
2015	81.34	9.67	71.47	8.98	82.31	689.90	87.56	56.73	38.76

Source: Bangladesh Bank, Annual Report 2014-15

Appendix-3 Table-3Financial Inclusion Indicators of Micro Finance Institutions:

Year	Branches Per 1000 km	Branches Per 100,000 Adults	Borrower Per 1000 adults	Deposit A/C Per 1000, Adults	Loan A/C Per 1000 adults	Deposit & acquired fund to GDP ratio	Outstanding Loan to GDP ratio
2004	49.34	7.02	121.72	157.33	121.72	0.45	1.13
2006	95.81	13.05	179.78	239.54	179.78	0.57	1.56
2008	103.87	13.63	193.05	257.66	193.05	0.71	1.73
2010	140.33	17.75	201.40	256.43	201.40	0.67	1.86
2012	142.85	17.36	180.33	230.64	180.33	0.71	2.00
2014	118.51	13.85	174.35	225.44	174.35	0.80	2.10
2015	125.34	15.23	179.32	254.18	179.10	.81	2.89

Source: Financial Access Survey (AFAS), IMF, 2015

Appendix-4 Table-4 Financial Inclusion Indicators for co-operatives in Bangladesh

Year	Branches Per 1000 km	Branches Per 100,000 Adults	Borrower Per 1000 adults	Deposit A/C Per 1000, Adults	Loan A/C Per 1000 adults	Deposit & acquired fund to GDP ratio	Outstanding Loan to GDP ratio
2004	1137.87	7.02	83.35	83.35	83.35	0.13	0.38
2006	1182.47	13.05	82.62	82.62	82.62	0.17	0.27
2008	1230.52	13.63	83.62	83.76	83.76	0.17	0.22
2010	1300.68	17.75	84.29	84.29	84.29	0.46	0.24
2012	1417.31	17.36	86.68	86.08	86.08	0.40	0.17
2014	1468.24	13.85	92.81	82.81	82.81	0.43	0.13
2015	1511.23	15.25	92.89	83.12	83,22	.047	.014

Source: Financial Access Survey (AFAS), IMF, 2015

Appendix-5 Table-5 Financial Inclusion for Mobile Financial Services

Year	No of agent outlets registered per 1000 km	No of agent outlets registered per 100000 adults	No of agent outlets registered per 1000 km	No of agent outlets registered per 100000 adults	Transactions value % of GDP
2011	1.20	43.44	5.39	2.19	0.01
2012	9.85	199.65	24.027	9.85	0.60
2013	25.83	897.52	106.96	405.40	4.48
2014	78.59	3313.45	387.20	735.00	76.74
2015	81.90	4312.23	436.10	811.00	79.01

Appendix-6 Table-6 Variables of the Study (Tk.in million)

Years	GDP	Total Credit	No. Of Bank Branches	Total Deposit	ATMs	Credit Deposit ratio
2007-2008	7.1	1815.5	6886	2316.0	10.93	78.38
2008-2009	6.0	2090.5	7187	2793.9	15.47	74.8
2009-2010	5.1	2574.4	7658	3379.2	27.8	76.18
2010-2011	5.6	3212.8	7961	4115.9	13.86	78.06
2011-2012	6.5	3859.3	8322	4864.1	28.43	79.39
2012-2013	6.0	4438.4	8685	6105.3	19.15	72.69
2013-2014	6.6	5096.5	9040	6931.1	26.13	73.24
2014-2015	6.6	5798.6	9131	7939.81	25.15	73.03

Source: Bangladesh Bank

Note: Date have been compiled by the researcher

Appendix-7 Table-7 Regression Analysis

R	R Square	Adjusted R Square	F Sig	Durbin Watson
.95	.98	.97	105.34	1.56

Appendix-8 Regression Co-efficient

Variables	Un-standardized Co-efficient B	Standardized Co-efficient	t-value	Sig	VIF	Ho (rejected accepted)
Constant	-12056.96		-4.669	.019		
Number of bank branches	78.924	.665	13.877	.001	1.248	Rejected
ATM Growth	-4736.28	-.038	-6.37	.570	1.118	Accepted
Credit Deposit ratio	134216.34	.254	4.056	.027	1.20	Rejected

Dependent Variable GDP

Source: SPSS,16.0 version

Table-8 Barriers to Financial Inclusion

	Barriers to financial inclusion from supply side	% of Respondents
1.	Poor banking infrastructure	20
2.	Lack of proper documentation	35
3.	Distance from branch	40
4.	Lack of suitable product	30
5.	Language barriers	15
6.	High cost of the product	40
7.	Poor level of technological structure	35
8.	High requirement of minimum balance	38
9.	Staff attitudes	34
10.	Branch hours	42
11.	Absence of credit bureau and insurance of MFI borrowers	20

	Barriers from demand side	% of Respondents
1.	Lack of awareness	45
2.	Inadequate banking education	37
3.	Low level income	30
4.	Social exclusion	30
5.	Illiteracy	45

Source: Field Survey

Appendix-9 Table-9 Factor I: Spreading the Bank Network

	Factors	Factor Loading
X1	Various types of banking service (branch, ATM, and agent)	.864
X4	Improved bank and market level infrastructure	.721
X5	Coverage of rural area	.635
X12	Effective supporting institutions	.597
X10	Broader scope of business correspondents	.545
	Eigen Value	2.239
	Variance Accounted for	22.224

Note: Data have been compiled by the researcher

Appendix-10 Table-10 Factor II: Technology Support

	Factors	Factor Loading
X3	Digital products and services	.752
X7	Exploring beyond the branch based approach	.740
X16	Use of appropriate technology	.659
X18	Enhanced digital functionally	.612
X22	Leveraging digital channels	.554
	Eigen Value	1.973
	Variance Accounted for	18.12

Note: Data have been compiled by the researcher

Appendix-11 Table-12Factor III Targeting the Unbanked area

	Factors	Factor Loading
X14	Customized products	.712
X13	Equitable distribution of banking services	.635
X19	Specialized products for unbanked groups	.512
X17	Focus on-bottom-of-the pyramid customers.	.501
	Eigen Value	1.94
	Variance Accounted for	15.36

Note: Data have been compiled by the researcher

Appendix-12Table-13FactorIV: Regulatory support

	Factors	Factor Loading
X11	Innovation friendly regulations	.632
X18	Low transaction fee.	.610
X20	Verifiable targets.	.521
X21	Easy documentation	.511
	Eigen Value	1.56
	Variance Accounted for	13.98

Note: Data have been compiled by the researcher

Appendix-13Table-14Factor: V Building Trust and Awareness

	Factors	Factor Loading
X2	Awareness generation	.732
X6	Financial and banking education	.631
X8	Practices of Ethical banking Building customer trust	.523
X9	Training of banker and Customer awareness	.503
	Eigen Value	1.32
	Variance Accounted for	10.12

Note: Data have been compiled by the researcher