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Inclusive Growth: Dimensions of Financial Inclusion in Bangladesh

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Abstract *Financial inclusion, has a great role to play for promoting inclusive growth. Financial inclusion ensures access to a well-functioning financial system, by creating equal opportunities, enables economically and socially excluded people to integrate better into the economy and actively contribute to development and protect themselves against economic shocks. Financial inclusion leads to greater asset accumulation by the poor and it is also associated with pro-poor growth. Poverty reduction and promoting inclusive growth are the most important policy priorities of the government of Bangladesh. In this paper an attempt has been made to discuss the various dimensions of financial inclusion in Bangladesh for promoting inclusive growth. Due to heterogeneity of socio-economic structures, there are diverging views and different solutions in different countries. So, individual countries need to design their own national strategies for inclusive growth and inclusive financial sector development. Bangladesh Bank (central bank of Bangladesh) has been contributing to the government's efforts to speed up inclusive growth through its financial inclusive campaign in the country. Progress has been achieved in financial inclusion in Bangladesh but many remains still to be done in deepening financial inclusion. It is imperative to design a long-run strategy for inclusive financial sector in Bangladesh for promoting sustainable inclusive growth as well as for overall economic development of the country.*

Key Words: *Financial Inclusion, Inclusive Growth, Time series.*

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1. Introduction

Over the past few years "Inclusive Growth" issue has received greater attention among development practitioners in developing countries. There are different views on the issue of inclusive growth process. In a narrow sense financial growth means pro-poor growth. In a broader idea inclusive growth is such a growth process in the economy that includes all population segments of the country which creates opportunities for all specially for the poor segment of the population through active participation in the economic development process. Inclusive financial sector development is one of the key drivers of promoting inclusive growth which provide financial services to the poor people vis-à-vis indirectly reducepoverty and inequality. In this respect, there is a rapid thrust for financial inclusion in many countries including Bangladesh where it got development policy priorities.

Financial Inclusion has becomean important development priority for the global and national level policy makers in recent times. World Bank Group in October 2013 postulated the global goal of universal access to basic transaction services as an important milestone towards full financial inclusion- a world where everyone has access and can use the financial services he or she needs to capture opportunities and reduce vulnerability (World Bank 2013b).

Financial inclusion is widely recognized in the policy circle and it is integral to the inclusive growth process and sustainable development of a country. The financial inclusion has emerged as a concept in Bangladesh just after liberation when the then government nationalized all the commercial banks (Islam &Mamun, 2011). Under the nationalization policy, branches were established in different places in the country including rural areas in view of covering the hitherto population neglected from the formal financial system. For a dynamic socio-economic progress, a reform in the financial sector has been put in place starting from 1990 (Financial Sector Review, BB, 2006). Post 90s, Bangladesh economy enters into the period of liberalization including the reforms of the financial sector in an intensive way. Opening of a good number of private commercial banks with their different banking products and services has influenced the economy targeting different sections of people in the country. Along with the gradual development of the Bangladesh's financial sector, the economic activities have been increasing steadily. The GDP growth was below 5 percent on an average during 90s, whereas the country has been maintaining about a 6 percent average GDP growth in last ten years (Sixth Five Year Plan, FY 2011-15, Part-3); therefore, financial inclusion has greater impact on economic activities. Bangladesh Bank had been pushing all banks and financial institutions to extend financial services for all productive purposes of all under-served or un-served population in the society.

Financial inclusion refers to a broader concept in its nature, scope and definition. In the blue book titled “Building Inclusive Financial Sector for Development”, United Nations (2006) defines financial inclusion as the access to credit for all “bankable” people and firms, to insurance for all insurable people and firms and to savings and payments services for everyone. Basic financial services include savings, short and long-term credit, leasing and factoring, mortgages, insurances, pensions, payments, local money transfers, and international remittances. Financial inclusion is a key element of social inclusion, which refers to the opportunity for the hitherto excluded population from the process of social andeconomic development. Hitherto financial and social excluded populations are related to poverty with deprivations in health, education and asset ownership.

Inclusive growth is a notion of financial and social inclusion where the concept is a growth process based on fuller participation of all the population segments benefitting them all. Reaching out the excluded population in growth process, inclusive growth stresses more on investment in rural infrastructure and agriculture and more on spending in education and health care. Financial institution can make the banking and financial services and provide financial education for the financially and educationally vulnerable people. Thus, inclusive growth is expected to be stronger and better rounded not only in terms of income but also in other measures of development such as human development, food security and environmental sustainability.

In this backdrop, this paper will examine i) the different dimensions of financial inclusion in Bangladeshii)is financial inclusionreallyacceleratinggrowth process of Bangladesh?

Section-2 of this paper provides literature review, section -3 is about the dimensions of financial inclusion and inclusive growth in Bangladesh, section-4 explains Theoretical Model and Empirical Analysis. And section-5 is conclusion.

2. Literature Review

Global literature explains financial exclusion in the context of a larger issue of social exclusion of weaker sections of the society. While Leyshon and Thrift (1995) explain financial exclusion as such processes those aid to prevent some social groups and individuals from getting access to the formal financial system, Carbo et al. (2005) and Conroy(2005) opine that it is a state of inability of some poor and disadvantaged societal groups to access the financial system. Mohan (2006) reasons that financial exclusion implies the lack of access by somesegments of the society to suitable, low-cost, fair and secure financial products and services from mainstream providers. Ensuing the reasoning made above, it can be an indication that financial exclusion occurs mostly to people who are the disadvantaged sections of the society.

One more issue of interest is whether low level of financial inclusion is associated with high income inequality (Kempson et al., 2004). Beck et al. (2007) have examined financial sector outreach and its factors by employing cross country data. Even, in the developed economies too, studies have revealed that the exclusion from the financial system occurs to low-income groups, the ethnic minorities, immigrants and others (Barr, 2004; Kempson and Whyley, 1998; Connoly and Hajaj, 2001). Studies by Leyshon and Thrift (1995), and Kempson and Whyley (2001) highlight that the geographical factor that people living in rural areas and in locations that are remote from financial centres are more likely to be financially excluded. As such, countries with low levels of income inequality tend to have relatively high level of financial inclusion (Buckland et al., 2005; Kempson and Whyley, 1998). In other words, the levels of financial inclusion inevitably rise in response to both prosperity and declining inequalities. Another factor that can be related with financial exclusion is employment (Goodwin etal., 2000). Recent evidence also suggests that the continued payment of social security benefits and the state pension in cash is significantly related to financial exclusion (Kempson and Whyley, 1999).

Informal sector accounts for a substantial share of employment in several less developed countries (ILO, 2002) which does not facilitate the process of financial inclusion. Formal employment also entails inclusion and, hence, the proportion of formal sector employment would be a vital indicator of the degree of financial inclusion.

Committee on Financial Inclusion in India (Rangarajan Committee, 2008) defines it 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. These financial services include the entire gamut – savings, loans, insurance, credit, payments, etc. The financial system has to provide its function of transferring resources from surplus to deficit units but both deficit and surplus units are those with low incomes, poor background, etc. By providing these services, the aim is to help them come out of poverty.

According to Peachy and Roe (2004), developed countries have experienced good levels of inclusion. However, it is reported that (ADB, 2007), in the developing countries, formal financial sectors serve relatively a small segment, often not over 20-30 percent of the population. Recent data illustrate those countries with large proportion of financial exclusion also show higher poverty ratios and higher levels of inequality.

Choudhury (2010) studied the issues related with financial inclusion, international experiences and the status of Bangladesh. Siddique*et* al. (2011) studies the various features and barriers to financial inclusion with a specific reference to Bangladesh. Islam and Mamun (2011) discussed the extent of financial inclusion by looking at the role of Bangladesh Bank in promoting inclusive growth in Bangladesh.Bahar*et* al. (2013) examined the relationship of "the Inclusive Banking and Inclusive Growth: Bangladesh perspective" and explained how inclusive banking influenced inclusive growth.

3. Dimensions on Financial Inclusion and Inclusive Growth in Bangladesh

3.1 Financial Inclusion

Finance influences not only the efficiency of resource allocation throughout the economy but also the comparative economic opportunities of individuals from relatively rich or poor households. Financial institutions exist to serve as intermediaries in market with high information asymmetries and transaction and information costs. As the bridges between the firms and the households, financial institutions live up to the primary function of being able to spur growth and development. Though this may be the case, there exists a divide within the financial system in itself. Financially excluded, as they are defined to be, there is a seen need for them to be included in the financial sector.

The G20 association of major world economic powers added its imprimatur to financial inclusion by recognizing it as one of four pillars in the financial sector reform structure of its Global Development Agenda, and given equal standing along with financial integrity, financial consumer protection, and financial stability. In so doing, the G20 defined financial inclusion as:

"…a state in which all working age adults have effective access to credit,savings, payments, and insurance from formal service providers…"

Financial inclusion, as defined by Rangarajan Committee on Financial Inclusion in India is "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." Though much has been written on financial inclusion, a gap in the literature is seen as no comprehensive measure is available to determine the level on financial inclusion in countries. As such, Sarma (2008) proposes an index which can answer the empirical questions as regards financial inclusion and development.

The World Bank usually measures the level of financial inclusion through certain banking measures. These include number of bank branches, number of accounts, and domestic credit as percentage of GDP and domestic deposit as percentage of GDP.These indicators for financial inclusion however, as Sarma (2008) argues, are not enough because it only identifies one dimension of banking outreach.

As an initiative of the Indian Council for Research on Economic Relations, Sarma(2008) proposed a measure by which the level of financial inclusion can be measured. Following from the framework of other UNDP indicators such as the human development index (HDI), gender related development index (GDI) and other indices, the index of financial inclusion (IFI) was derived. A dimension index for each included dimension of the IFI was first derived. The dimension index for the i^{th}dimensions is given by the formula:

$$\mathrm{di} = \frac{Aii - mi}{Mi - mi}$$

Where,

Ai = Actual value of dimension i

m = minimum value of dimension i

M = maximum value of dimension i

After getting the dimensions, the formula for the index of financial inclusion was derived to be a weighted average of the dimension indexes. As such, it can be presented as follows:

$$\mathrm{IFIi} = 1 - \sqrt{(1-d1)2 + (1-d2)2 \ldots\ldots + (1-dn)n} \,/ \sqrt{n}$$

The three dimensions included in Sarma's (2008) define the three most used determinants of financial inclusion in previous studies conducted by the World Bank.These are banking penetration, availability of banking services and usage measured in terms of number of people with bank accounts, number of bank branches and credit and deposits as percentage of GDP, respectively.

Due to unavailability of data, Sarma (2008) was limited to coming up with an index for only a few countries and an index of financial inclusion based on only two dimensions. The index is only based on usage and availability.

Table 3.1: Overall Scenario and coverage of financial access of Financial Inclusion in Bangladesh

Banks		**Coverage**
1.	Population (15+)	95.6 (mil.)
2.	Total No. of bank branch outlets (up to June 2013)	8,427
3.	(i) Total No. of deposit accounts in banks (up to June 2013), Of which	61.2 (mil.)
	(ii) No. of no-frills accounts of small holder/tenant farmers and other low income individuals opened with nominal Tk. 10 initial deposits (up to 22nd August 2013)	13.2 (mil.)
	(iii) No. of mobile phone banking accounts. (up to July 2013)	
	(iv) No. of agent outlets serving mobile phone banking users (up to July 2013)	7.2 (mil.)
	(v) No. of ATM outlets of banks (December 2012)	108 (thousands)
MFIs		
1.	No. of licensed NGO-MFIs (June 2012)	618
2.	No. of branches (June 2012)	17,977
3.	No. of clients (June 2012)	24.6 (mil.)
Post Office and Cooperatives		
1.	No. of Post Office branches	10,000
2.	No. of Post Offices with facility of Electronic Money Transfer (EMT) services	1,150
3.	Post Offices with postal cash cards services	31
4.	No. of Cooperatives	183 (thousands)

Source: *Rahman A.,The Mutually –Supportive Relationship between Financial Inclusion and Financial Stability.A publication of BB.*

It has been observed from the above data that total number of deposit accounts in banks (up to June 2013) stood at 61.2 million which is about 64 percent of the total population of age 15+ and 108 percent of the economically active population.

Financial inclusion due to opening of no-frill accounts (13.2 mil.) constitutes almost 25 percent of the total economically active population.There are around 8.4 thousands bank branches along with about 18thousands branches of NGO-MFIs, 1.2 thousands post offices and 183thousands cooperative outlets totaling about 210.6 thousands branches/outlets for 56.6 million economically active population generating at least one financial service point per 270 people.As of July 2013, there are around 7.2 million mobile banking accounts which are growing at around 10 percent per month during the last few months.

From table 3.2, it is observed that the financial inclusion as percent of total population is increased gradually. In 2003 it was 40.10 percent and in 2010 it was 56.42 percent. Financial inclusion increased by 40.70 percent in 2010 compare to 2003. This was mainly possible because of innovative initiatives from the Bangladesh Bankand Government. In this respect, BB's initiative to instruct banks to give facility to open 10 taka account for farmer and rural people.

Table-3.3 reflects the overall situation of financial inclusion in SAARC countries. Maldives is the leader in this region concern to financial inclusion. But Bangladesh's position is alsogoodin some area like ATMs per 1,000 km^2, Number, Commercial bank branches per 1,000 km^2, Number,Deposit accounts with commercial banks per 1,000 adults, Number ofLoan accounts with commercial banks per 1,000 adults, Number of active mobile money accounts per 1000 adults, Outstanding deposits with commercial banks as percent of GDP, Outstanding loans from commercial banks as percent of GDP.

3.2 Financial Inclusion through Banks and Non -Bank financial institutions

Financial Inclusion Data Working Group (FIDWG) in 2013 defined the Core Set of Financial Inclusion Indicators. They addressed the two basic dimensions of financial inclusion: access and usage of financial services.

"Access" refers to the ability to use the services and products offered by formalfinancial institutions. Determining levels of access may require identifying andanalyzing potential barriers to opening and using a bank account, such as cost or physical proximity of bank service points (branches, ATMs, etc.)

"Usage" refers to the depth or extent of financial services and product use. Determining usage requires gathering details about the regularity, frequency and duration of use over time. The indicators for usage in the Core Set are: percentage of adults with at least one type of regulated deposit account, percentage of adults with at least one type ofregulated credit account.

Table-3.4 (a) and 3.4 (b) depicts access and use of financial services in Bangladesh.

Table 3.2 : Status of Financial Inclusion in Bangladesh

Year	Adult Population (millions)	Total population (millions)	Population per bank branch (in number)	Number of bank deposit A/Cs (millions)	Deposit A/Cs as % of adult population	Number members MFIs (millions)	of MFI in members as % of adult population	Number members cooperatives (millions)	of Cooperative in members as % of adult population	Financial inclusion as % of adult Population	Financial inclusion as % of total Population
2003	80.80	133.40	21406	31.30	38.73	14.63	18.11	7.57	9.37	66.21	40.10
2004	82.25	135.20	21443	31.60	38.42	14.40	17.51	7.76	9.43	65.36	39.76
2005	83.80	137.00	21420	33.10	39.50	18.82	22.46	7.92	9.45	71.41	43.68
2006	84.60	138.80	21171	34.50	40.78	22.89	26.95	8.03	9.45	77.33	47.13
2007	87.08	140.60	20320	35.70	42.02	20.83	24.52	8.22	9.68	74.36	46.05
2008	89.62	142.40	20566	37.60	43.83	23.53	24.36	8.44	9.84	77.63	48.86
2009	92.24	144.20	19681	38.97	42.25	24.90	26.99	8.64	9.37	78.61	50.28
2010	94.50	146.10	18947	48.68	51.51	24.94	26.39	8.81	9.32	87.23	56.42

Source: *Rahman (2009b), MRA, BBS, Schedule Bank Statistics,BB andWorking Paper Series: WP 1101 (Dec. 2011). Research Department.BB.*

Table 3.3: Access and use of financial services in SAARC Countries (2013)

	Bangladesh	India	Pakistan	Sri Lanka	Nepal	Maldives	Afganistan	Bhutan
ATMs per 100,000 adults, Number	6.33	13.27	6.49	16.68	8.47	26.64	0.78	20.18
ATMs per 1,000 km2, Number	52.22	38.96	9.90	40.47	10.46	213.33	0.19	2.79
Commercial bank branches per 100,000 adults, Number	8.19	12.16	9.33	18.57	8.57	16.24	2.49	16.41
Commercial bank branches per 1,000 km2, Number	67.59	35.68	14.24	45.06	10.58	130.00	0.60	2.27
Deposit accounts with commercial banks per 1,000 adults, Number	610.61	1,197.57	316.48		478.90	1,772.27	143.83	984.99
Loan accounts with commercial banks per 1,000 adults, Number	94.92	147.00	27.82		33.67	145.72	4.08	150.32
Number of active mobile money accounts per 1000 adults, Number	41.64		13.66				7.35	
Value of mobile money transactions (during the reference year) (% of GDP), Percent	5.63		4.00				18.46	
Outstanding deposits with commercial banks as percent of GDP, Percent	68.85	69.98	34.26	46.85	82.50	61.37	19.59	61.39
Outstanding loans from commercial banks as percent of GDP, Percent	49.81	55.14	18.28	42.24	49.30	48.98	4.43	53.15

Source: International Monetary Fund (IMF)

In 2005, Commercial bank branches per 100,000 adults was 6.86 in 2005 but in 2013 it was 8.19.Depositors with commercial banks per 1,000 adults were254.51 and in 2013 it increased to577.27. ATMs per 100,000 adults were increased from 0.19 in 2005 to 6.32 in 2013.Borrowers from commercial banks per 1,000 adults increased from 65.50 in 2005 to 84.11 in 2013.Commercial bank branches per

Table 3.4 (a): Access and use of financial services in Bangladesh

Year	Commercial bank branches per 100,000 adults	Depositors with commercial banks per 1,000 adults	ATMs per 100,000 adults	Borrowers from commercial banks per 1,000 adults
2005	6.86	254.51	0.19	65.50
2010	7.44	324.77	2.05	66.49
2011	7.65	464.12	3.60	86.74
2012	7.84	498.63	4.88	84.60
2013	8.19	577.27	6.32	84.11

Source: Financial Access Survey, IMF

1,000 km^{2}were 6.86,7.44 and 8.19 respectively in 2005, 2010 and 2013. There have a rapid increase of ATMs per 100,000 adults from 0.19 in 2005 to 6.32 in 2013.Borrowers from commercial banks per 1,000 adult's also substantially increased between 2005 and 2013.

Table-3.5 expressedbranch, deposit and advance in the banking system in rural and urbanarea. At end December 2000, the number of rural brancheswas 3659 (59.8 percent of total branches), which increased to 4827 (57.3 percent of total branches) at end of June 2013. The number of branches in urban areas increased from 2460 (40.2 percent of total branches) as of end December 2000 to 3600 (42.7

Table 3.4 (b): Access and use of financial services in Bangladesh

Year	Commercial bank branches per 1,000 km^2	ATMs per 1,000 km^2	Household deposit accounts with commercial banks per 1,000 adults	Outstanding deposits with commercial banks (% of GDP)
2005	49.56	1.41	265.08	42.98
2010	59.06	16.29	360.56	53.86
2011	61.88	29.16	321.23	57.34
2012	64.72	40.31	342.48	59.81
2013	67.58	52.21	450.99	68.84

Source: Financial Access Survev. IMF

percent of total branches) at end June2013. The number of rural branches increased at a lower rate compared with the number of urban branches.

Total deposits of rural branches increased toTaka 1030.9 billion (18.0 percent of totaldeposits) at end June 2013 from Taka 160.6billion (22.6 percent of the total deposits) as ofend June 2000. The amount of urban deposits increased to Taka 4690.2 billion (82.0 percent of total deposits) at end June 2013 compared to Taka 549.2 billion (77.4 percent of total deposits) as on 30 June 2000. The amount of advances in rural areas increased from Taka100.1 billion as of end June 2000 to Taka434.3 billion at end June 2013. However, the share of rural advances decreased to 10.2percent as of end June 2013 from 16.9percent of the same period in 2000. The amount of urban advances increased from Taka 493.5 billion (83.1 percent of total advances) at end June 2000 to Taka 3813.8billion (89.8 percent of total advances) as on30 June 2013.

BB introduced Mobile banking servicesin order to easy excess to financial services for the people who have no opportunity to take the service from formal

Table 3.5: Branch, deposit and advance in the banking system - rural and urban

(Billion taka)

Year	Number of Branch*			Deposit**			Advance**		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
2000	3659	2460	6119	160.6	549.2	709.8	100.1	493.5	593.6
2005	3764	2638	6402	218.3	1197.6	1415.9	117.6	999.7	1117.3
2010	4393	3265	7658	436.9	2942.3	3379.2	206.9	2367.5	2574.4
2011	4551	3410	7961	536	3579.9	4115.9	254.5	2958.3	3212.8
2012	4760	3562	8322	853.1	4011	4864.1	405.6	3453.7	3859.3
2013	4827	3600	8427	1030.9	4690.2	5721.1	434.3	3813.8	4248.1

Source: Bangladesh Bank Annual Report 2012-2013.

financial institutions. The initiatives of BB are the milestone in the banking sector for the use of mobile financial services. It may be mentioned here that; *Bangladesh bank achieved International Award for Promoting Mobile Banking by the Alliance for Financial Inclusion.* Some indicators of mobile banking are shown in table-3.6.

Small and medium enterprises (SMEs) are playing an increasingly important role as engines of economic growth in Bangladesh. BB has undertaken different programmes to provide relatively cheaper funds to the banks and financial institutions to encourage them to engage in SME financing. SME and Special Programmes Department (SME&SPD) of BB is working to facilitate this. The Monitoring Division of SME&SPD has been set up to ensure the monitoring of SME financing activities and to obtain the facts and figures of SME development. To expand and develop this sector, Bangladesh Bank has been continuing its

Table 3.6: Indicators of Financial Inclusion through Mobile Financial Services

Year	Value of total outstanding mobile banking balances	Value of mobile money transactions (during the reference year)	Number of registered agent outlets	Number of registered mobile money accounts	Number of active agent outlets	Number of active mobile money accounts	Number of mobile money transactions (during the reference year)
2011	44000000	476000000	5654	125506	2551	7186	229592
2012	746000000	63809000000	54594	3229573	45183	989128	25895678
2013	3141000000	5.16648E+11	185023	13173425	136333	4472342	228601768

Source: Financial Access Survey, IMF

refinancing facilities for FY13 for Banks and NBFIs for SMEs.

In 2005, SME borrowers from commercial banks were 184504 and in 2010 by increasing 93.30 percent it reached to 356645. In compare to 2010 the numbers of borrowers increased by 21.55 percent in 2013. SME loan accounts increase from 201697 in 2005 to 580377 in 2010 and in 2013 it reached to 636381. On the other hand, SME outstanding deposits and loans also increased tremendously this period of time.

Table 3.7: Financial inclusion by SME sector

Year	Commercial banks: of which: SME borrowers	Commercial banks: of which: SME loan accounts	Commercial banks: of which: SME Outstanding Deposits	Commercial banks: of which: SME Outstanding Loans
2005	184504	201697	38013000000	65829000000
2010	356645	580377	1.21532E+11	5.39438E+11
2011	433262	534992	4.30514E+11	9.55454E+11
2012	467586	552246	4.84116E+11	1.12382E+12
2013	433497	636381	5.16081E+11	1.16421E+12

Source: Financial Access Survey, IMF

3.3 Financial Inclusion through Micro Finance Institutions

In Bangladesh about 70 percent of the poor people live in rural areas and are concentrated in the agriculture sector.Along with the Government, the MFIs are involved to provide financial services to the people and accelerate the overall economic development of the country through microcredit operations. The overall scenario of financial inclusion through MFIs is shown in table-3.8.

The Grameen Bank and the MFIs constituted a rapidly growing segment of the rural financial market in Bangladesh and brought about a major breakthrough in reaching out to the rural poor. Microcredit operations have been providing various social and financial services to the poor for more than three decades. It brings banking to the poor villagers with a focus primarily on women in order to

Table 3.8: Situation of Financial Inclusion through MFIs.

Year	Deposit taking MFIs: of which: household borrowers	Deposit taking MFIs: of which: household depositors	Deposit taking MFIs: of which: household loan accounts	Deposit taking MFIs: of which: household Outstanding Deposits	Deposit taking MFIs: of which: household Outstanding Loans
2005	13980000	18820000	13980000	21005000000	56059000000
2010	20724894	26388150	20724894	53590000000	1.4867E+11
2011	20673607	26044130	20673607	63304000000	1.73798E+11
2012	19312926	24637184	19312926	75208000000	2.11227E+11
2013	19271479	24617934	19271479	93998000000	2.5701E+11

Source: Financial Access Survey, IMF

establish a sustainable means of income. According to BB Annual Report 2012-13, although more than a thousand of institutions are operating microcredit program, only 10 large Micro Finance Institutions (MFIs) like (BRAC, ASA, TMSS, BURO TANGAIL, Proshika, Jagarani Chakra Foundation, Shakti Foundation, PadakhkhepManabikUnnayan Kendra, Caritas Bangladesh and RDRS) and Grameen Bank represent lion's share of total savings of the sector. Grameen Bank and large NGOs like BRAC, ASA, TMSS and BURO TANGAIL disbursed credit of366.08 billion taka in FY 2012-13.

Besides extending micro-credit, many MFIs in Bangladesh have collaborated with insurance companies in extending another financial service, viz., micro insurance to the poor, offering modest sized covers such as credit life insurance ('debt dies with debtor'), health and accident insurance (for sicknesses and injuries requiring hospitalization etc)., property insurance (usually for livestock bought with MFI loans), at affordably low rates of premium.

3.4 Inclusive Growth due to financial Inclusion and its status in Bangladesh

Several Researchers identify the several indicators of inclusive growth due to financial inclusion. Bahar*et* al.(2013) identified some indicators of financial inclusion like national and sector wise growth rates and their patterns, sector wise unemployment rate, national and regional Gini Coefficient, status of physical infrastructure, national health and educational attainments etc. Sarma(2008) proposed a measure by which the level of financial inclusion can be measured. Following from the framework of other UNDP indicators such as the human development index (HDI), gender related development index (GDI) and other indices.

According to Swamy (2010), a growing GDP is an evidence of a society, getting its collective act together for progress. As its economy grows, a society becomes more strongly organized, more compactly interwoven. Growth is good, sustained high growth is better and sustained high growth with inclusiveness is best of all. Inclusive growth in the economy can only be achieved when all the weaker sections of the society, including agriculture and small scale industries, are nurtured and brought on par with other sections of the society in terms of economic development.

Bangladesh's economy has been performing of real GDP growth of more than six percent on average for more than few years. This stable growth trend has been maintained because of the Bangladesh government's inclusive development strategy, supported by Bangladesh Bank's (BB) initiative of emphasizing socially responsible financing in its everyday activities and pushing these objectives into the country's financial sphere.

All banks and financial institutions, whether state-owned, private, local or foreign, have devotedly engaged themselves in nationwide financial inclusion. Financial support from these initiatives has boosted agriculture, with SMEs (Small and Medium Enterprises) projects generating domestic output.

Bangladesh's GNI per capita in 1973 was USD 224.30 in1980 it was USD 243.51 ,1990 was USD 269.62 in 2000 was USD 349.50 in 2010it was USD 539.09 and in 2013 it USD 625.34. In compare 1973 the GNI per capita increased near about three times for the last four decades.

For the last few years in Bangladesh, financial inclusion is increasing gradually which is induced sustained economic growth and increased GNI per capita. And this increased GNI per capita influences inclusive growth in Bangladesh.

According to Table-A (Annexur-1), Bangladesh's HDI value for 2013 is 0.558—which is in the medium human development category. Between 1980 and 2013, Bangladesh's HDI value increased from 0.336 to 0.558, an increase of 66.0 percent or an average annual increase of about 1.55 percent.

Table-A (Annexure-1) reviews Bangladesh's progress in each of the HDI indicators. Between 1980 and 2013, Bangladesh's life expectancy at birth increased by 15.8 years, mean years of schooling increased by 3.1 years and expected years of schooling increased by 5.1 years. Bangladesh's GNI per capita increased by about 165.7 percent between 1980 and 2013.

Table-B (Annexure-1) depicts that Bangladesh's 2013 HDI of 0.558 is below the average of 0.614 for countries in the medium human development group and below the average of 0.588 for countries in South Asia.

Table-C explained theBangladesh's IHDI for 2013 relative to selected countries and groups. According to table –C, Bangladesh's HDI for 2013 is 0.558. However, when the value is discounted for inequality, the HDI falls to 0.396, a loss of 29.1 percent due to inequality in the distribution of the dimension indices. Pakistan and Nepal show losses due to inequality of 30.1 percent and 28.8 percent respectively. The average loss due to inequality for medium HDI countries is 25.6 percent and for South Asia it is 28.7 percent. The Human inequality coefficient for Bangladesh is equal to 28.7 percent.

Table-D described the Bangladesh's GDI value and its components relative to selected countries and groups. The Gender Development Index (GDI) based on the sex-disaggregated Human Development Index, defined as a ratio of the female to the male HDI. The GDI measures gender inequalities in achievement in three basic dimensions of human development—health (measured by female and male life expectancy at birth), education (measured by female and male expected years of schooling for children and mean years for adults aged 25 years and older); and command over economic resources (measured by female and male estimated GNI per capita).

There have a rapid decline of poverty between 2005 and 2010 and was a sizeable decline in the incidence of extreme poverty. The percentage of population under the lower poverty line, the threshold for extreme poverty, fell by 29.6 percent (or 7.4 percentage points) from 25 percent of the population in 2005 to 17.6 percent in 2010. A fall of 47percent (or 7 percentage points) occurred in urban areas and that of 26 percent (7.5percentage points) in rural areas. The percentage decline in extreme poverty rate was thus more than that in the poverty rate, consistent with the growth in per capita consumption due to increase in per capita GNI (Sixth Five Year Plan).

But another considerable concern in Bangladesh is about the growing income inequality.Income Gini coefficient from 0.451 in 2000 to 0.458 in 2010 due to an increase in rural incomeinequality(Sixth Five Year Plan).

It is observed from the above discussion that over the time due to financial inclusion influences the inclusive growth. But it is also observed that over the time with sustained GDP growth income inequality also increased.

4. Macroeconomic Factors

A number of macroeconomic fundamentals and structural factors are drivers of inclusive growth. For sustainable poverty reduction, rapid pace of growth is necessary. There are many factors in social, economic and political are for influencing financial inclusion; In this study we have attempted to see the comportance variables to measure financial inclusion for time series analysis.

First, per capita GNI (Gross Nation Income) because if there is an increase in per capita income (*gnigro*) (measured as per capita GNI growth rate), there will be an increase in inclusive growth process. Assuch, per capita income (which used as a determinant in a similar analysis by Andrea Vaona and Roberto Patuelli, 2008) is commonly acceptedmeasure of standard of living of people and, consequently, is a major factor that enhances inclusive growth and, hence, it is included in the analysis.

Second, there is also an argument that overall credit has impact on inclusive growth process (Andrea Vaona, 2005). In view of this, credit to gross domestic product (*cregdp*) (measured as a ratioin percentage to GDP) is included as a determinant.

Third, Domestic savings (*savgdp*)(measured in ratio as percent of GDP)) is included as a determinant in order to account for the argument that savings propels economic activity in the system at large and helps in inclusive growth process (Beck,Levine and Loayza, 2000).

So, the linear form of the regression equation has been estimated

$$gdpgro = \beta_1 + \beta_2 gnigro + \beta_3 cregdp + \beta_4 savgdp + \mu$$

Where,

gdpgro = GDP growth rate

gnigro = GNI per capita growth rate

cregdp = Credit provided by all financial institutions as percent of GDP

savgdp = Saving as percent of GDP

Here is$_1$intercept, and$_{2,34}$are coefficients and the signs of the coefficient expected to be positive also $\mu$is the error term. A simple OLS technique has been used to examine the impact of financial inclusion on inclusive growth.

4.1 Regression results and discussion

This study found that GNI per capita has a very high significant impact on inclusive grow. This implies that if there is an increase in per capita income, there certainly increase in inclusive growth. Because the coefficient of GNI per capita growth is 0.929 which means 1% increase in GNI per capita income will increase the GDP growth 0.929 percent.This finding is consistent with other finding like

Kraay (2004) and Beck et al. (2007). Though, credit provided by all financial institution (as percent of GDP) has significant impact on inclusive growth but this study found that this variable is not statistically significant. However, saving as percent of GDP is statistically significant but negatively correlated with growth.

Regression Results

Dependent variable gdpgro	
gnigro1	0.929***
	(0.034)
cregdp1	0.039
	(0.038)
savgdp1	-0.092*
	(0.048)
Constant	-0.040
	(0.119)
Observations	39
R-squared	0.960

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Nature and strength of the impact of various determinants on Inclusive growth

Explanatory variable	Correlation trend
gnigro	Positive and highly significant
cregdp	Positive but not significant
savgdp	Negative and significant

Limitation

As the data of four variables are time series in nature, so it is essential to test the unit roots. Augmented Dicky-Fuller test has been used for unit roots test. First, we test the unit roots for all variables at level. We found that all variable contain unit roots at level. But when using first difference we found all variable are stationary in first difference.

Unit root test result

Variables	Level	First difference
gdpgro	I(0)	I(1)***
gnigro	I(0)	I(1)***
cregdp	I(0)	I(1)***
savgdp	I(0)	I(1)***

The regression result has some flaws because the observations are limitedonly 39 observations which are not sufficient for time series analysis. Moreover, lots of socio-economic and political factor factors are responsible for inclusive growth but as data are not available for all factors so this study did not include all those factors in the growth model.

5. Conclusion

Inclusive growth has been a development policy priority in many countries. For promoting inclusive growth financial inclusion has become an important vehicle. Delivering financial services to all sections of the population will remain a challenge that central banks around the world will face over the next few years. Promoting inclusive growth through financial inclusion has been a challenge and a key priority in populous low income developing economies like Bangladesh. Fair progress has been achieved in financial inclusion in Bangladesh but much remains still to be done in deepening financial inclusion in Bangladesh. There is a need for effectively promoting and facilitating adoption of cost saving options of financial service delivery to numerous clienteles in dispersed off branch locations, including mobile phone / smart card based banking using microfinance institutions and other locally active area agents. Bangladesh Bank may construct an effective multidimensional Index for Financial Inclusion that captures information on various aspects of financial inclusion.

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Annexure-1

Table A: Bangladesh's HDI trends based on consistent time series data and new goalposts

Year	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2011 PPP$)	HDI value
1980	54.9	4.9	2	1,021	0.336
1985	57.4	5	2.4	1,086	0.357
1990	60	5.6	2.9	1,098	0.382
1995	62.7	6.5	3.3	1,230	0.417
2000	65.3	7.5	3.7	1,444	0.453
2005	67.5	8.4	4.4	1,762	0.494
2010	69.4	9.5	5.1	2,337	0.539
2011	69.9	10	5.1	2,457	0.549
2012	70.3	10	5.1	2,592	0.554
2013	70.7	10	5.1	2,713	0.558

Source: Human Development Report 2014, UNDP

Table B: Bangladesh's HDI indicators for 2013 relative to selected countries and groups

	HDI value	HDI rank	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (PPP US$)
Bangladesh	0.558	142	70.7	10.0	5.1	2,713
Pakistan	0.537	146	66.6	7.7	4.7	4,652
Nepal	0.540	145	68.4	12.4	3.2	2,194
South Asia	0.588		67.2	11.2	4.7	5,195
Medium HDI	0.614		67.9	11.7	5.5	5,960

Source: Human Development Report 2014, UNDP

Table C: Bangladesh's IHDI for 2013 relative to selected countries and groups

Country	IHDI value	Overall loss (%)	Human inequality coefficient (%)	Inequality in life expectancy at birth (%)	Inequality in education (%)	Inequality in income (%)
Bangladesh	0.396	29.1	28.7	20.1	37.8	28.3
Pakistan	0.375	30.1	28.7	29.9	45.2	11.0
Nepal	0.384	28.8	27.8	21.1	44.0	18.3
South Asia	0.419	28.7	28.0	24.4	41.6	18.0
Medium HDI	0.457	25.6	25.2	21.9	35.1	18.6

Source: Human Development Report 2014, UNDP

Table D: Bangladesh's GDI value and its components relative to selected countries and groups

Country	Life expectancy at birth		Expected years of schooling		Mean years of schooling		GNI per capita		HDI values		F-M ratio
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	GDI value
Bangladesh	71.5	69.9	10.3	9.7	4.6	5.6	1,928	3,480	0.528	0.58	0.908
Pakistan	67.5	65.7	6.9	8.4	3.3	6.1	1,707	7,439	0.447	0.6	0.75
Nepal	69.6	67.3	12.5	12.2	2.4	4.2	1,857	2,554	0.514	0.56	0.912
South Asia	68.9	65.7	10.8	11.4	3.5	5.8	2,384	7,852	0.522	0.63	0.83
Medium HDI	70	65.9	11.4	11.8	4.7	6.4	3,199	8,619	0.565	0.65	0.875

Source: Human Development Report 2014, UNDP

Abbreviations

ATM	Automated Teller Machine
BB	Bangladesh Bank
BBS	Bangladesh Bureau of Statistics
FIDWG	Financial Inclusion Data Working Group
FY	Financial Year
GDP	Gross Domestic Product
GoB	Government of Bangladesh
GNI	Gross National Income
HDI	Human Development Index
IFI	Index of Financial Inclusion
IHDI	Inequality- adjusted Human Development Index
IMF	International Monetary Fund
IT	Information Technology
IPFF	Investment Promotion Financing Facility
MFI	Microfinance Institutions
MRA	Microcredit Regulatory Authority
NBFI	Non Bank Financial Institution
NGO	Non Government Organization
SME	Small and Medium Enterprises
SPD	Special Programmes Department
UN	United Nations
UNDP	United Nations Development Programs
WB	The World Bank