EVALUATING THE IMPACT OF BANKING PENETRATION ON ECONOMIC GROWTH OF INDIA

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ABSTRACT

Economic growth and development of the country is one of the major objectives of all governments of the world. Recent studies and research shows that financial inclusion plays a significant role in economic development of the country. Financial inclusion is the inclusion of that segment of the population into the formal banking structure which were devoid of the formal banking structure. Various efforts have been made by Indian government to provide banking structure benefits to the poor and the under privileged sections of the society. Banking sector has become the source through which the objectives of economic development and growth can be achieved and thereby enhancing financial inclusion in India. The present paper attempts to study the impact of banking penetration on economic growth of India. The extent of bank penetration has been measured through number of bank branches, credit deposit ratio and ATM growth rate. Secondary Data has been collected for a period of ten years and multiple regression model has been used to estimate the relation between the variables under study. Results show a negative and insignificant impact of ATM growth on GDP. Credit Deposit Ratio has a positive and insignificant impact on GDP. Bank Branches has a positive and significant impact on GDP.

Keywords- *Financial Inclusion, Banking Penetration, Economic Growth, Multiple Regression Analysis*

1. INTRODUCTION

India is a country which is having the second largest population in the world. In terms of growth it is one the fastest growing economy of the world. But still our country is plagued by many problems like poverty inequality illiteracy unemployment etc. There are various reasons to our many problems. But one of the main reasons to our many problems is Financial exclusion. Financial Exclusion is the opposite of Financial inclusion. Financial inclusion may be 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 (The Committee on Financial Inclusion, Chairman: Dr. C. Rangarajan).

Financial inclusion measures tries to ensure that all segments of the society have equal and fair access to the formal banking structure of the country. Measures are been taken to provide banking services at such a low price that even the marginalized segments or the weaker sections of the society are able to avail banking facility. For the Same RBI has initiated many steps to include the weaker sections of the society. Financial awareness program have started, zero balance accounts has been opened, number of bank branches has been increased so that banking network can be spread to the far reaching regions of the country.

2. MEANING

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"(RANGARAJAN 2008).

3. OBJECTIVE OF FINANCIAL INCLUSION

(1) Due to financial inclusion more and more people will be able to save and invest which would ultimately help the economy of the country.

(2) Availability of a formal banking sector would help the weaker sections to come out the clutches of the informal banking service providers. Thus helping in stopping the exploitation of the weaker sections.

(3) Availability of timely and cheap sources of credit would help to grow entrepreneurial abilities among the weaker section.

(4) Financial inclusion helps in effective distribution of various government schemes among the weaker sections.

(5) Financial inclusion will be able to develop the habit of savings among the poor as they did not have a formal structure to save.

4. REVIEW OF LITERATURE

(1) Suranarayan(2008) (M 2008) in his paper tried to provide a perspective, a measure of inclusion and an evaluation based on available estimates of consumption distribution for the year 2004 2005.

(2) Radhika Dixit and Munmun Ghosh(2013)(ghosh 2013) focused on understanding inclusive growth phenomenon, its need and financial inclusion as an instrument to attain it with extent in Indian states. The analysis was done grouping clusters considering parameters like GDP per capita, literacy rate, unemployment rate and index of Financial inclusion. The level of Financial inclusion varies from state to state. The challenge of financial exclusion is being faced by most of the states. In order to solve the problem of Financial exclusion, every state needs to develop a customized solution.

(3) Shelly Oberoi and Dr. Namita Rajput(Rajput n.d.) Studied the current situation of Financial Inclusion in India and critically analyzed the Government, Banks and RBI's initiatives in Financial inclusion. They tried to compute the comprehensive measures of Financial inclusion for each state. The results of the study showed that most of the southern states have performed better in terms of financial inclusion. The level of financial inclusion of states in India have a near to ground mean and high disparity.

(4) Dr. Kabita kumari Sahu(2013) (Sahu May 2013) in her paper tried to understand the present status of Financial inclusion, estimate the level of Financial inclusion index in various states, and study the relationship between Financial inclusion and socio economic variables. The study found that no state in India belong to the category of high IFI. Chandigarh and Delhi belong to the medium category and rest of the states has low IFI.

(5) Dr. M M Gandhi(2013)(Gandhi June 2013) in his paper tried to critically evaluate the initiatives taken by banks in Financial inclusion and the efforts made by IT enabled financial services. The paper stresses the need of matured positive attitude and approach, sound strategy to achieve the objective of financial inclusion.

(6) Dangi and Kumar (2013) (Kumar 2013) examined the current status of Financial inclusion in India. They also tried to examine the steps taken by government and RBI for financial inclusion. The paper concluded that gains have been made in Financial inclusion but still a lot needs to be done so that the benefits of financial inclusion can be received by the needy and the poor.

(7) Badar Alam iqbal and Shaista Sami(2016)(Badar Alam Iqbal 2016)in their paper aimed to study the impact of financial inclusion on growth of the economy over a period of seven years. Secondary data was used and the data was analyzed using multiple regression model. The results found a positive and significant impact of number of bank branches and credit deposit ratio on GDP of the country, whereas an insignificant impact in case of ATM growth on Indian GDP.

5. RESEARCH GAP

All the studies done in field of financial inclusion prove that the economic development and growth of the country is not possible without including the under privileged and deprived sections of the society. Progress has been made in the field of Financial inclusion but still many people are not able to get the basic banking sector facility. If these are catered to and included in the financial inclusion then the growth and development of the country can be increased. This paper is an attempt to study the scenario of banking penetration during last ten years and how it has affected economic growth of the country.

6. RESEARCH OBJECTIVES

(1) To examine the extent of banking penetration in India

(2) To study the impact of banking penetration on economic growth of India

(3) To examine the role of banks in achieving financial inclusion through banking penetration.

7. RESEARCH METHODOLOGY

This research has been done basically on secondary data which is collected from reports of RBI, Ministry of Finance, Government of India, Newspapers, Research articles, Journals, books and magazines etc. Various online websites like RBI, Ministry of Finance and World Bank etc were also used to collect the data. The data has been collected for a period of ten years (2007-08 to 2016-17). The data so collected has been analyzed using Multiple Regression. This has been done to establish an empirical relation between Financial inclusion and growth of the country. In the present study GDP of the country has been taken as a dependent variable. Number of bank branches, ATM growth rate and credit deposit ratio has been taken as independent variable.

7.1 Hypothesis of the Study

H01. There is no significant impact of financial inclusion on the growth of Indian economy.

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

7.2 RESEARCH DESIGN

The current paper is a combination of descriptive and causal research designs.

7.3 SCOPE OF RESEARCH

The present research has only taken ATM growth rate, credit –deposit ratio, and number of bank branches as the variables of the study. Similarly the data for the variables has been collected for a period of ten years i.e. 2007-08 to 2016-2017.

8. DATA ANALYSIS

8.1 BANKING PENETRATION

One of the prime objectives of Reserve Bank of India is to spread financial inclusion in India RBI has instructed banks to take measures so that the benefit of financial inclusion reaches to the poor and unbanked.

The following tables present the data collected regarding bank group wise number of branches in rural, semi urban, urban and metropolitan areas for a period of 2007-08 to 2016-17.

Table 1-Bank group wise branches in rural area

Years	SBI and its associates	Nationalised banks	Other public sector banks	Foreign banks	Regional rural banks	Private sector banks	Total
2007-08	4870	12085	46		10847	870	28718
2008-09	5063	12260	46	1	10939	922	29231
2009-10	5434	12557	61	1	11059	1003	30115

Years	SBI and its associates	Nationalised banks	Other public sector banks	Foreign banks	Regional rural banks	Private sector banks	Total
2010-11	5796	13117	73	4	11320	1111	31421
2011-12	6126	14321	82	4	11911	1329	33773
2012-13	6522	15562	113	5	12487	2049	36738
2013-14	7072	17964	239	5	13274	3349	41903
2014-15	7426	19503	351	6	14028	3843	45157
2015-16	7652	20296	414	6	14635	5276	48279
2016-17	7810	20780	433	9	14964	5775	49771

The above **Table 1**shows bank group wise branches in rural area for a period of 2007-08 to 2016-17. In the initial 3 years Nationalised banks, Regional rural banks and SBI group were the three major contributors in total number of branches respectively. During the ten years for which data has been collected the maximum growth in number of branches (in % terms) has been achieved by other public sector banks and public sector banks which are 841.3% & 563.8%respectively. The growth rate for SBI is 60.37%, nationalised bank is 71.94 and regional rural banks are 38% for the same period.

Table 2Bank group wise branches in semi urban area

Years	SBI and its associates	Nationalised banks	Other public sector banks	Foreign banks	Regional rural banks	Private sector banks	Total
2007-08	4680	8227	81	1	3075	2350	18414
2008-09	4994	8768	83	6	3269	2620	19740
2009-10	5443	9507	121	8	3356	3012	21447
2010-11	5717	10644	161	9	3510	3739	23780
2011-12	5944	12110	207	9	3716	4641	26627
2012-13	6316	13481	253	11	3966	5419	29446
2013-14	6737	15377	348	11	4202	5932	32607
2014-15	6936	16715	490	11	4400	6428	34980
2015-16	7069	17453	564	11	4535	8031	37663
2016-17	7145	17894	594	9	4620	8703	38965

The above **Table 2**shows bank group wise branches in semi urban area for a period of 2007-08 to 2016-17. In the initial 3 years Nationalised banks, SBI group and Regional rural banks were the three major contributors in total number of branches respectively. During the ten years for which data has been collected the maximum growth in number of branches (in % terms) has been achieved by other public sector banks and public sector banks which are 633.33% &270.34% respectively. The growth rate for SBI is 52.67%, nationalised bank is 71.94% and regional rural banks are 50.24% for the same period.

Table 3 Bank group wise branches in urban area

Years	SBI and its associates	Nationalised banks	Other public sector banks	Foreign banks	Regional rural banks	Private sector banks	Total
2007-08	2642	7840	152	40	712	2177	13563
2008-09	2811	8326	160	43	787	2418	14545
2009-10	3077	8919	264	52	855	2736	15903
2010-11	3180	9429	288	53	926	2995	16871
2011-12	3374	10046	349	53	987	3293	18102
2012-13	3587	10601	364	53	1076	3558	19239
2013-14	3952	11433	409	46	1168	3838	20846
2014-15	4158	12230	480	46	1251	4201	22366
2015-16	4301	12654	530	47	1327	5090	23949
2016-17	4429	12926	539	39	1388	5565	24886

The above **Table 3 s**hows bank group wise branches in urban area for a period of 2007-08 to 2016-17. In the initial 3 years Nationalised banks, SBI group and private sector banks were the three major contributors in total number of branches respectively. During the ten years for which data has been collected the maximum growth in number of branches (in % terms) has been achieved by other public sector banks and public sector banks which are 254.61 & 155.63% respectively. The growth rate for SBI is 67.63%, nationalised bank is 64.87% and regional rural banks are 94.94% for the same period. In case of foreign banks from 2007-08 till 2010-11 the number of branches has increased but there after the number has decreased.

Table 4 Bank group wise branches in metropolitan area

Years	SBI and its associates	Nationalised banks	Other public sector banks	Foreign banks	Regional rural banks	Private sector banks	Total
2007-08	2876	9135	217	233	131	2620	15212
2008-09	3137	9604	217	240	172	2947	16317
2009-10	3350	10229	254	244	188	3363	17628
2010-11	3493	10714	282	247	210	3817	18763
2011-12	3670	11281	319	252	229	4262	20013

Years	SBI and its associates	Nationalised banks	Other public sector banks	Foreign banks	Regional rural banks	Private sector banks	Total
2012-13	3866	11757	331	257	256	4568	21035
2013-14	4177	12462	394	247	295	4936	22511
2014-15	4335	13143	443	253	335	5514	24023
2015-16	4520	13493	522	255	367	6417	25574
2016-17	4600	13732	535	231	384	7042	26524

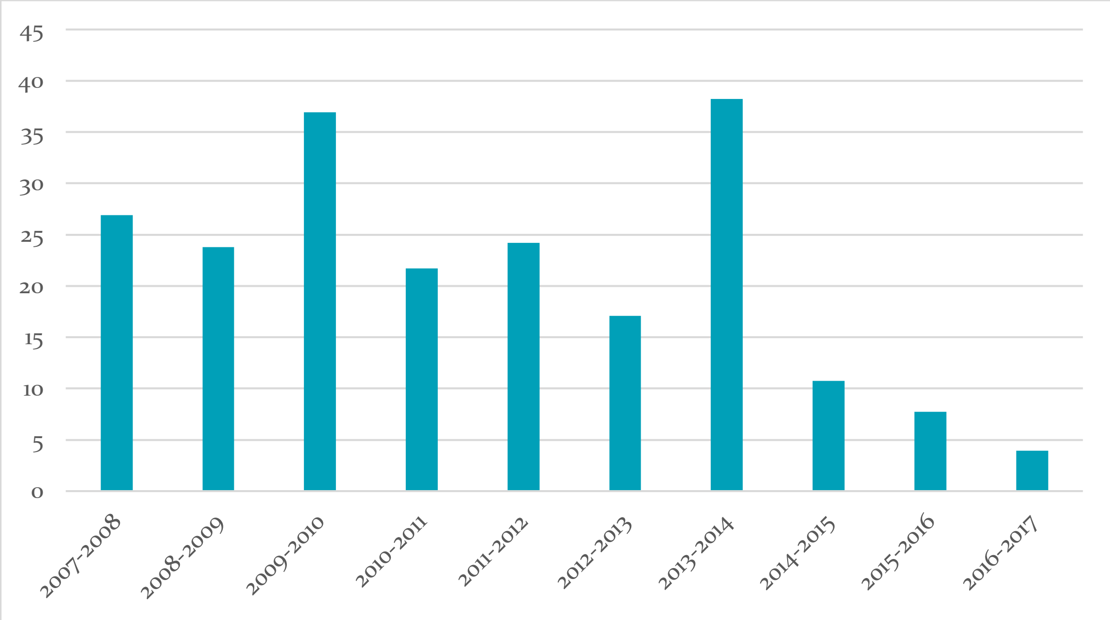
The above **Table 4**shows bank group wise branches in metropolitan area for a period of 2007-08 to 2016-17. In the initial 3 years Nationalised banks, SBI group and private sector banks were the three major contributors in total number of branches respectively. During the ten years for which data has been collected the maximum growth in number of branches (in % terms) has been achieved by regional rural banks and public sector banks which are 193.129 &168.77% respectively. The growth rate for SBI is 59.94%, nationalised bank is 50.32% and other public sector banks are 147% for the same period. In case of foreign banks from 2007-08 till 2012-13 the number of branches has increased but there after the number has decreased.

Table 5 variables of study

Years	GDP at market price	GDP Growth	ATM growth rate	Credit deposit ratio	Number of Bank Branches
2007-2008	49870.9	16.1218	26.92	77.6	61,132
2008-2009	56300.63	12.8927	23.77	72.6	80200
2009-2010	64778.27	15.0578	36.91	73.3	85480
2010-2011	77841.15	20.1655	21.733	75.6	91037
2011-2012	90097.22	15.7449	24.18	79	98330
2012-2013	99440.13	10.3698	17.1	78.1	102343
2013-2014	112335.22	12.9676	38.22	77.6	117200
2014-2015	124451.28	10.7856	10.73	78.3	1,26,519
2015-2016	136820.35	9.9388	7.75	78.2	1,35,383
2016-2017	151837.09	10.9755	3.96	73	1,40,064

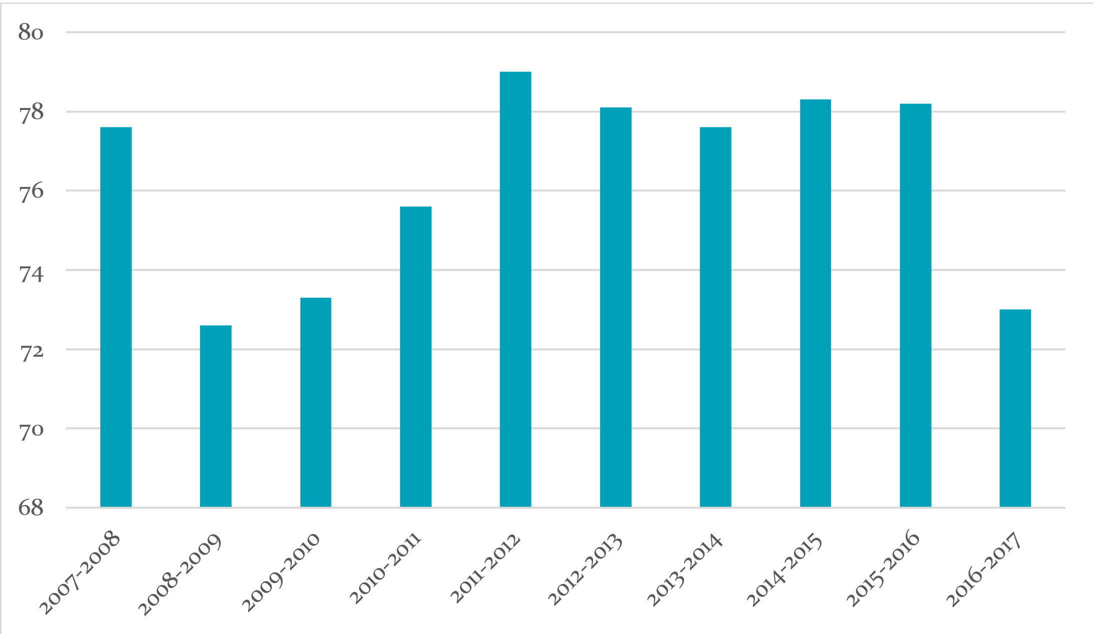
The above **Table 5**shows the variables used for study. In the present study GDP of the country has been taken as a dependent variable. Number of bank branches, ATM growth rate and credit deposit ratio has been taken as independent variable.

Figure 1 ATM Growth Rate



The above **Figure 1**shows ATM growth rate during the period 2007-08 to 2016-17. During the year 2013-14 their was maximum growth rate ia ATM. One of the most striking feature is that during the last three years of data collection the growth rate is showing a decreasing trend.

Figure 2 Credit Deposit Ratio



The Above figure 2 shows the credit deposit ratio for a period of ten years. The C-D ratio has been constant for most of years except 2008-09, 2009-10 and 2016-17. During these three years credit deposit ratio has decreased notably.

Figure 3 Number of Bank Branches

The Above **Figure 3** shows the number of bank branches from 2007-08 to 2016-17. The figure shows a constant increase in the number of branches during the ten years for which data has been collected.

8.2 IMPACT OF BANKING PENETRATION ON ECONOMIC GROWTH

The present has taken Gross domestic product as a dependent variable and independent variables are number of bank branches in the country, ATM growth rate and credit deposit ratio.

Y=b0+b1X1+b2X2+b3X3+e

Where,

Y= Gross domestic product

X1= Number of bank branches

X2= ATM growth rate

X3= Credit deposit ratio

Table 6 Regression coefficients

Variables	Unstandardized coefficient B	Standardized coefficient Beta	t-value	Sig.
Constant	-93830.455		-1.467	.193
Number of bank branches	1.247	.918	11.965	.000
ATM growth	-280.072	-.092	-1.215	.270
Credit deposit ratio	874.374	.062	1.044	.337
R-Square	.979			
F-Value	93.407			
Sig. F	.000			
D.W.	1.965			

Table 6 indicates the summary of multiple regression analysis which was carried out through SPSS. R value is .989 which indicates that there is a high correlation between the dependent and independent variables. The value of R square is .979 and Adjusted R square is .969. P value is .000 which indicate that the regression model is statistically significant and a fit model. The value of Durbin Watson is 1.965 which is free from autocorrelation problem. Table shows the results of regression analysis for dependent and independent variables. In the present study GDP of the country has been taken as a dependent variable. Number of bank branches, ATM growth rate and credit deposit ratio has been taken as independent variable. The results of the analysis indicate that the beta value of ATM growth is -280.072 which means a negative impact on GDP. The P value is .270 which is greater than .05 which means an insignificant impact. The beta value of credit deposit ratio is 874.374 and P value is .337 which means a positive insignificant impact on GDP. The beta value of bank branches is 1.247 and P value .000 which means a positive significant impact on the GDP. The following regression equation was obtained-

GDP= -93830.455+1.247* Bank branches-280.072*ATM growth+874.374 *Credit Deposit ratio

CONCLUSION

On the basis of the study we can conclude that overall the penetration of banking has increased but still it needs to be improved. In case of rural areas the contribution of nationalized banks, SBI & its associates and regional rural banks is the maximum. In semi urban area the contribution of nationalized banks, SBI & its associates, regional rural banks and private sector banks is good. In urban areas the maximum number of branches is of nationalized banks, SBI & its associates and private sector banks. In metropolitan areas nationalized banks, private sector banks and SBI & its associates have majority of branches. If we compare the areas the number of bank branches has doubled in semi urban area. In all the three other areas the bank branch network can be improved which will further help in improving banking penetration in our country.

Based on the study we can also conclude that the financial inclusion has a impact on the economy of the country. RBI and government has undertaken many steps in order to provide the benefits of financial inclusion to the needy and the under privilege people. Still a host of factors also affect the growth of GDP apart from financial inclusion. In a country like India which has vast and vivid variations the problem of financial exclusion should be solved through various angles. Results of the study show a negative and insignificant impact of ATM growth on GDP. C D Ratio has a positive and insignificant impact on GDP. Bank Branches has a positive and significant impact on GDP. More and more steps should be taken for growth of Financial inclusion and also awareness about the same. The formal banking sector if made available to a broader public base would have a positive impact on the economy of the country.

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