



## **Financial Inclusion and its Determinants: An Empirical Study on the Inter-State Variations in India**

**Dr. Bhawna Rajput**

*Associate Professor, Aditi Mahavidyalaya, University of Delhi, Delhi, INDIA*

*(Corresponding author: Dr. Bhawna Rajput)*

*(Received 06 February, 2017, Accepted 25 March, 2017)*

*(Published by Research Trend, Website: [www.researchtrend.net](http://www.researchtrend.net))*

**ABSTRACT:** The access to finance by the poor is a prerequisite for poverty reduction and sustainable economic development of a country. This paper attempts to measure the inter-state variations in the access to finance using credit and deposit penetration ratios and attempts to identify and analyze the determinants of financial inclusion using panel data analysis of 29 states spanning over a period from 2006 to 2014. The study corroborates the theory of importance of regional economic conditions on the level of financial inclusion in India. The level of economic activity reflected by per capita state domestic product, the factory proportion and employee base are found to be significant variables indicating that income and employment generating schemes lead the public to be more active, aware, interested with regard to banking activities, which contributes towards financial inclusion.

**JEL codes:** G21, G23, G28, O16

**Keywords:** access to finance, financial inclusion, poverty alleviation, economic development

### **I. INTRODUCTION**

Financial sector development fosters economic growth and reduces poverty by widening and broadening access to finance and allocating society's savings more efficiently. A mature system supports higher levels of investment and promotes growth in the economy with its depth and coverage India has a functioning financial market/system comprising of money market, forex market, capital market, debt market to cater to financial needs and requirements of various participants and segments of society. It ensures a smooth and efficient flow of monetary resources, meeting the funding needs required for growth and prosperity.

The banking industry in India has shown tremendous growth in volume and complexity over the last decade or so. Despite making significant improvements in all the areas relating to financial viability, profitability and competitiveness, there are concerns that much needed banking services have not reached a vast segment of the population, especially the underprivileged sections of the society. In fact, the significantly large section of population still lack access to the most basic banking services that is holding a bank account. This is termed as "financial exclusion" which further leads to social exclusion. In India, only 55% of the population has deposit accounts and 9% have credit accounts with banks. The number showing access to other financial services are even more disappointing. Less than 20% of Indian population has life insurance coverage and only 10% have an access to any other kind of insurance coverage. The number of credit cards has remained stagnant at around 20 mn for last five years. Studies have proved that lack of inclusion or rather exclusion from the banking system results in a loss of 1 per cent to the GDP. Thus, financial inclusion is not just an economic imperative but also a socio-political one. The present study is an attempt to understand the behavior and determinants of financial inclusion in India. The econometric technique is used for the study of state-wise panel data for the period from 2006-2014.

The rest of the paper is organized as follows: Section 2 briefly provides the significance of financial inclusion in India. The source of data and key variables is given in Section 3. Section 4 explains the econometric methodology employed for the analysis. The exploratory results are discussed in Section 5. Section 6 provides the results of empirical analysis. The Section 7 concludes with summary and major findings of the study.

## II. CONCEPTUAL FRAMEWORK OF FINANCIAL INCLUSION

“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*” (Rangarajan Committee report, 2008).

Access to safe, easy and affordable credit and other financial services by the poor and vulnerable groups in disadvantaged areas and lagging sectors is recognized as a pre-condition for accelerating growth and reducing income disparities and poverty. 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 protects themselves against economic shocks. Financial inclusion is also considered to be a business opportunity for the formal financial institutions. It would help them in penetrating into unbanked areas and thereby attaining profit and help them in developing the supportive infrastructure for economic growth.

Financial Inclusion is considered to be an important determinant for social inclusion of poor and vulnerable. It is in fact, one of the essential conditions for reduction of poverty and socioeconomic inequalities in the society (Rangarajan, 2008). It provides multiple effect of the economy through higher savings from vast segment of the society and people from the bottom of the society get access to formal saving arrangements which result in expansion of credit and investment by banks. It leads to improvement in financial condition and living standards of improvised sector of the society as they are able to generate income and financial assets which enable them to build resilience to meet livelihood shocks. Government easily transfer welfare benefits to disadvantaged groups of people in a leakage proof manner. The monetary policy of the country becomes effective which enhances the prospects of non-inflationary growth. It reduces the reliance on informal sector and enables a country against anti-money laundering and combating of financing terrorism.

The Government of India and the Reserve Bank of India have been making concerted efforts to promote financial inclusion as one of the important national objectives of the country. Some of the major efforts made in the last five decades include - nationalization of banks, building up of robust branch network of scheduled commercial banks, co-operatives and regional rural banks, introduction of mandated priority sector lending targets, lead bank scheme, formation of self-help groups, permitting Business Correspondents/Business Facilitators to be appointed by banks to provide door step delivery of banking services, zero balance accounts, etc. The fundamental objective of all these initiatives is to reach the large sections of the financially excluded Indian population.

## III. DATA SOURCE AND KEY VARIABLES

The study is a state-wise panel data analysis spanning over a period from 2006 to 2014. The Variables are defined as follows:

### A. Dependent Variables

The following two proxy variables for financial inclusion has considered as dependent variable:

- (i) Deposit Penetration Indices defined as number of deposit accounts per thousand of population
  - (ii) Credit Penetration Indices defined as number of credit accounts per thousand of population
- Separate regressions have been performed for deposit and credit penetration indices.

### B. Independent Variables

*Population Density* is an important explanatory variable in the study. The population density is the population per square kilometer to capture the role of population concentration on the penetration of banking system.

### C. The Other Explanatory Variables are explained as follows

Average Population per bank branch (APPB, henceforth) is the ratio of population (in thousands) to the total number of branches in the specific territory. *Income* is measured by per capita net state domestic product (NSDP) at 2004-05 constant prices. The logarithm of per capita NSDP has been included to analyze the influence of states' economic condition on the level of financial inclusion measured using penetration of banking system in the present study. *Credit deposit ratio* (CD ratio) indicates the efficiency with which the deposits are mobilized and is utilized to carry out investment and capital formation activities. A high CD ratio is usually associated with higher investment and growth. The *proportion of factories* has been taken as a proxy for the level of industrialization. The economies with greater industrialization are expected to have greater role for banking and financial activities. *Employment status* represents the employment status of individuals. Those of a more secure status economically are less likely to be financially excluded (Devlin, 2005).

The information on state-wise deposit and credit accounts has been obtained from Basic Statistical Return Relating to Commercial Banks in India. The state-wise annual population data is derived from the projected population

estimates given by office of census of India, Government of India. The relevant information along with the data on factories has been collated from Annual Survey of Industries. Both factories and employee information has been normalized by the respective population figures. The data on NSDP has been collected from Handbook of Statistics on Indian Economy published by Reserve Bank of India.

**IV. ECONOMETRIC MODEL AND METHODOLOGY**

The study involves the use of the panel data estimation techniques (fixed-effects model and random-effects model) to control for the fixed or random individual differences. The econometric analysis applied in the study will proceed in **two stages**:

At the First stage, the level of financial inclusion will be measured using the credit penetration ratios and deposit penetration ratios as mentioned above of the 29 selected states during the sample period of 2006-2014.

At the Second stage, the determinants of financial inclusion using certain factors will be explored by applying panel linear regression analysis. The second-level of analysis will attempt to identify the variables that influence the level of financial inclusion during the sample period i.e. 2006-2014. It will help to evaluate potential correlates of inter-state disparity in financial inclusion using different financial inclusion indicators as dependent variable of different states in India:

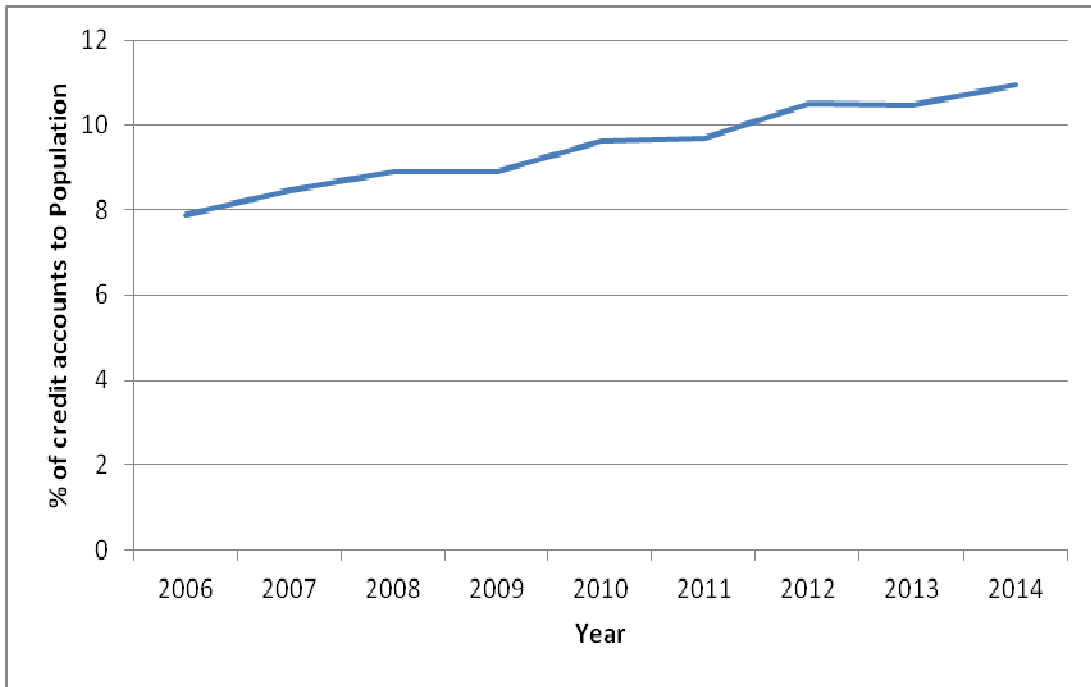
The basic functional form of the regression equation is as follows:

$$Y_{ij} = \beta_0 + \beta_1 x_{ij} + \alpha_i + \varepsilon_{ij} \dots(1)$$

Here,  $Y_{ij}$  represents the value of endogenous/dependent variable for the  $i^{th}$  state at the  $t^{th}$  period which will be financial inclusion indicator  $\beta_0$  stands for the intercept term and  $X_{ij}$  is the matrix of exogenous/explanatory variables or determinants of financial inclusion defined in the section 3.  $\beta_1$  is the vector of associated parameters.  $\alpha_i$  is treated as a random variable with a specified probability distribution (usually normal, homoscedastic, and independent of all measured variables) in case of random effects model, whereas a set of fixed parameters in fixed effects model.  $\varepsilon_{ij}$  is the usual stochastic disturbance term following normal distribution with mean 0 and variance  $\sigma^2$ .

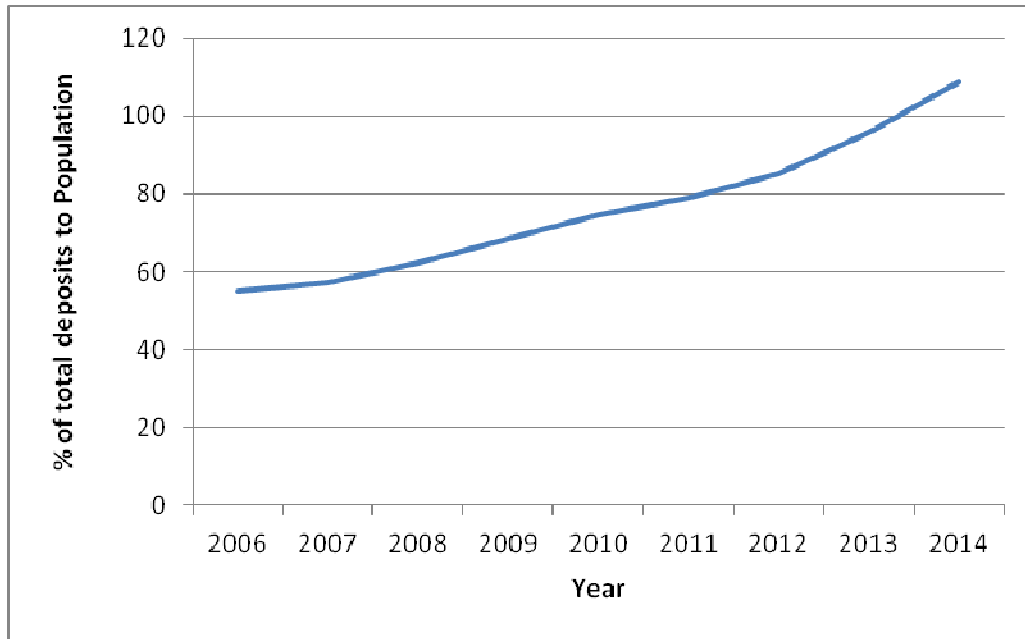
**V. EXPLORATORY RESULTS**

As per Sarma (2008) index of penetration has been constructed separately for deposit and credit accounts as percentage of deposit/credit accounts to population. Fig. 1 displays the trend of ratio of credit accounts to population (credit penetration index) during the sample period. During 2006 to 2014 there has been an increase in the ratio from 7.89 to 10.94 per cent.

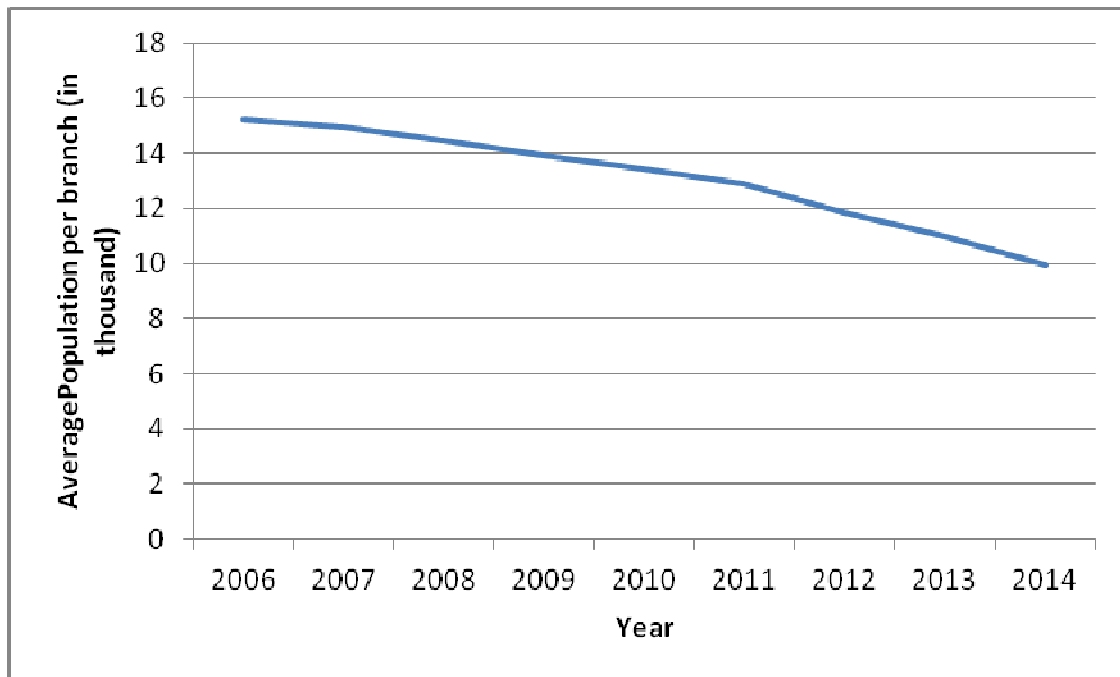


**Fig. 1.** Ratio of Credit Accounts to Population.

The ratio of deposit accounts to population (deposit penetration index) has also recorded a consistent growth during the sample period (Fig. 2). The movement of APPB is depicted in Fig. 3, which exhibits an improvement of APPB from 15248 individuals being catered by a single branch in 2006 to 9926 persons in the year 2014. This is an indicator of branch expansion of commercial banks in India.



**Fig. 2.** Ratio of Deposit Accounts to Population.



**Fig. 3.** Average Population per Branch.

A graphical representation of credit penetration index for the year 2014 is illustrated in Fig. 4 to provide a glimpse of the variation of credit penetration across the various states of India. The states, such as, Tamil Nadu, Puducherry, Kerala have the highest credit penetration at 39.8, 23.59 and 23.48 per cent respectively, whereas, the states performing poorest in terms of credit penetration are observed to be Manipur and Chhattisgarh at 4.2 and 4.5 per cent.

The graph is slightly different in terms of deposit penetration where the states of Goa, Chandigarh and Delhi peaked with 252.42, 192.17 and 184.66 per cent (Fig. 5). The states performing poorest in terms of deposit penetration are observed to be same as that of credit penetration i.e. Manipur and Chhattisgarh at 4.2 and 4.55 respectively.

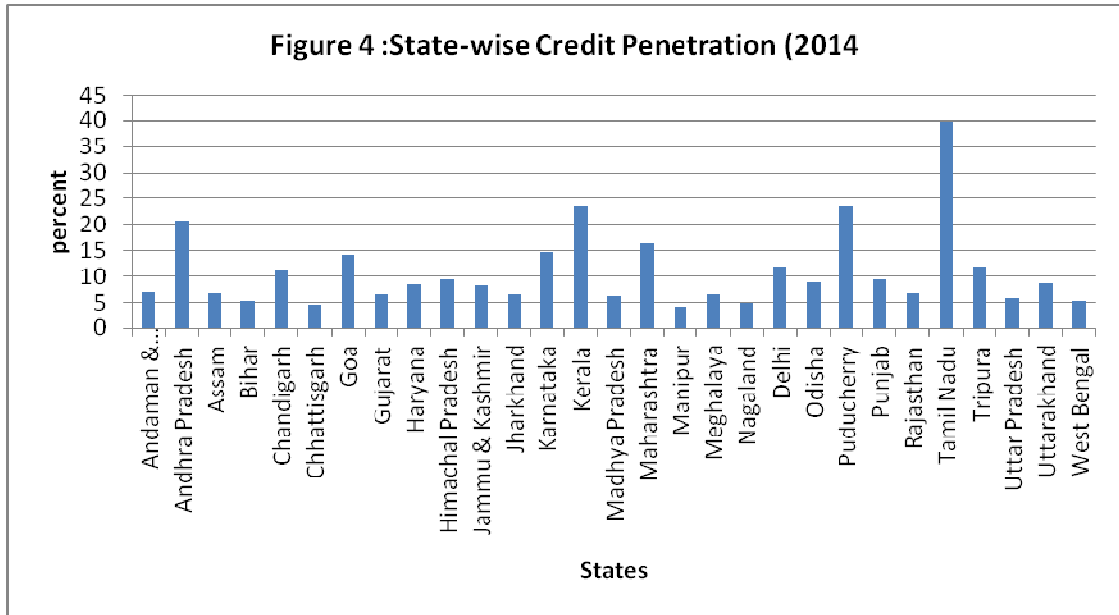


Fig. 4.

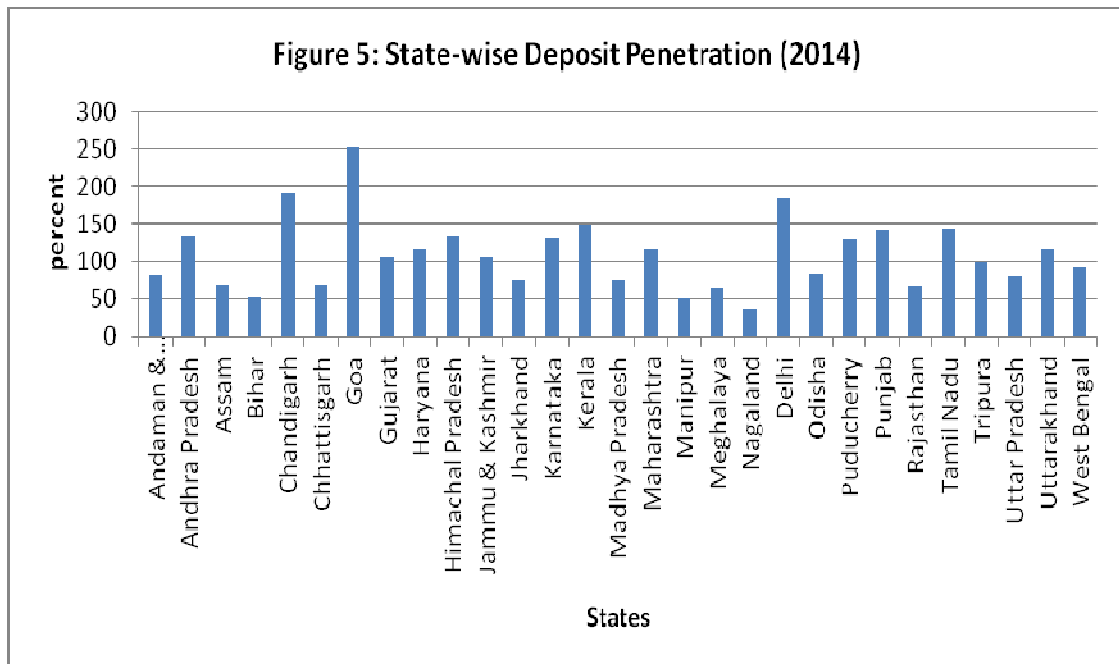


Fig. 5.

The Fig. 6 portrays the APPB. As observed in case of penetration indexes, in case of APPB also Nagaland Bihar and Manipur had the lowest branch network, catering to more than 16,000 to 19,000 persons per branch. A high branch density with less than 10,000 persons per branch have been computed for Goa, Chandigarh and Himachal Pradesh, Delhi and various southern states such as Kerala, Tamilnadu etc.

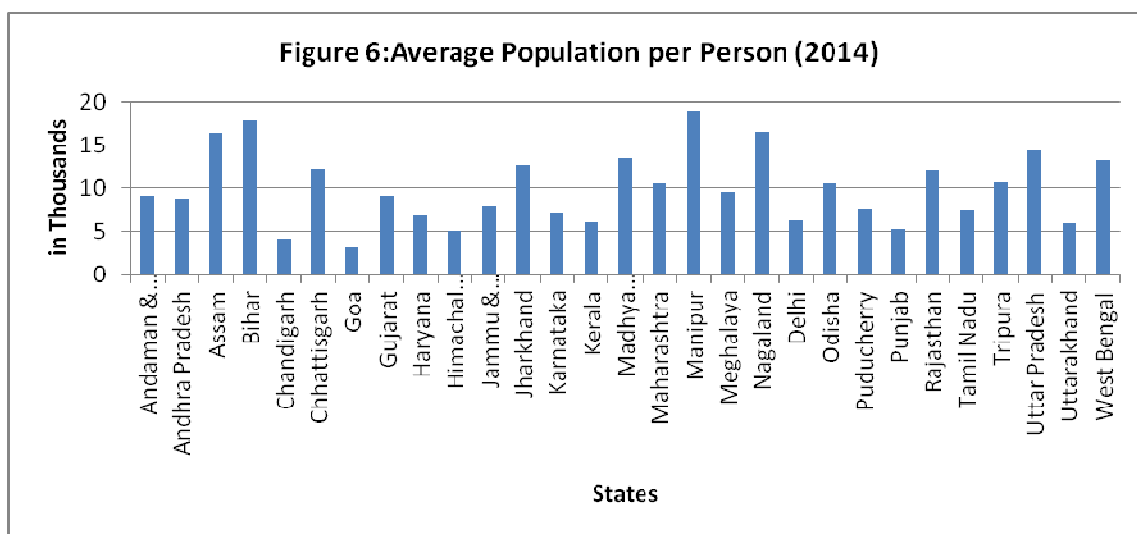


Fig. 6.

A snapshot of variables for few selected years is provided in Table 1. From the table, it is evident that the number of branches of Scheduled Commercial Banks in India rose by around 50000 during the period of the study. The number of credit accounts marked a increase of around 85 lakhs in 2006 as compared to 2014. Overall, other variables have risen in magnitude.

To examine the relationship between the credit and deposit penetration indices, the coefficient of correlation between deposit and credit penetration indices is tabulated in Table 2. It is observed from the table that although some of the states do have negative and/or insignificant relationship but most of the states have a positive and significant relationship between the two indices. The results indicate that the regions having high credit penetration are also the regions having high deposit penetration and *vice versa*.

In order to know the extent of variation of penetration indices across the states, the coefficient of variation is computed in Table 3. It is observed that penetration indices do considerably vary across states. For instance, the deposit index varied from as low as 6 per cent for Chandigarh to a high of 47 per cent for Manipur. The variation seems to be lower in case of credit index. The variation credit penetration for Karnataka was lowest at around 4 per cent whereas for Maharashtra the index hovered around 29 per cent.

Table 1: The summary statistics of variables for select years.

Statistics	Year	Statistics	Branches (in no.)	Deposit Accounts (in no.)	Deposit Amount (in ₹)Million	Credit Accounts (in no.)
Sum	2006	Sum	70533	484005418	20861066	85302801
Average	2006	Average	2432.172	16689842	719347.1	2941475.897
S.D.	2006	S.D.	2293.923	17118984.3	1008394	3728724.134
Sum	2007	Sum	72934	518032537	25908480	94287742
Average	2007	Average	2514.966	17863190.9	893395.9	3251301.448
S.D.	2007	S.D.	2362.633	18375076.8	1327721	4295591.765
Sum	2008	Sum	77415	580298950	32418384	106822693
Average	2008	Average	2669.483	20010308.6	1117875	3683541.138
S.D.	2008	S.D.	2505.193	20693403.2	1731935	5573925.735
Sum	2009	Sum	81507	660673446	39116014	109888620
Average	2009	Average	2810.586	22781843	1348828	3789262.759
S.D.	2009	S.D.	2638.543	23767807.4	2023098	5817851.491

Statistics	Year	Statistics	Branches (in no.)	Deposit Accounts (in no.)	Deposit Amount (in ₹)Million)	Credit Accounts (in no.)
Sum	2010	Sum	86651	733013596	45486917	118453871
Average	2010	Average	2987.966	25276330.9	1568514	4084616.241
S.D.	2010	S.D.	2806.684	25937834.6	2395350	6034589.422
Sum	2011	Sum	91779	807797567	53750996	120532185
Average	2011	Average	3164.793	27855088.5	1853483	4156282.241
S.D.	2011	S.D.	2964.502	29030278.1	2864454	5870514.593
Sum	2012	Sum	100423	900278429	60609135	130671483
Average	2012	Average	3462.862	31044083.8	2089970	4505913.207
S.D.	2012	S.D.	3240.706	32346208.8	3052965	6430015.067
Sum	2013	Sum	108854	1041914540	69913939	128071893
Average	2013	Average	3753.586	35928087.6	2410825	4416272.172
S.D.	2013	S.D.	3497.695	37631814.9	3520960	6054970.131
Sum	2014	Sum	120475	1223382755	79323979	138501115
Average	2014	Average	4154.31	42185612.2	2735310	4775900.517
S.D.	2014	S.D.	3865.466	44356673.4	3997251	6640040.593

Source: Author's own calculation

**Contd. Table 1a: The summary statistics of variables for select years.**

Year	Statistics	Amount of Credit (₹ ) Million)	No. of factories	Employment (in no.)	Per Capita(Constant)
2006	Sum	15120534	137502	8967425	947183
2006	Average	521397.7	4741.448	309221.6	32661.48
2006	S.D.	969448.5	5971.487	385000.7	18514.17
2007	Sum	19448563	142133	10163857	1024401
2007	Average	670640.1	4901.138	350477.8	35324.17
2007	S.D.	1240343	6242.194	466202.8	20065.72
2008	Sum	24140001	143884	10280305	1089382
2008	Average	832413.8	4961.517	354493.3	37564.9
2008	S.D.	1575738	6073.009	429823	20810.04
2009	Sum	28443186	152726	11146414	1147322
2009	Average	980799.5	5266.414	384359.1	39562.83
2009	S.D.	1797027	6747.543	471386.5	21931.36
2010	Sum	33407745	156281	11562649	1223263
2010	Average	1151991	5389	398712	42181.48
2010	S.D.	2000659	6789.526	493777.5	23411.94
2011	Sum	40711665	208199	12465881	1305271
2011	Average	1403851	7179.276	429858	45009.34
2011	S.D.	2445360	9546.112	526587.3	25040.07
2012	Sum	47983688	214063	13204467	1369518
2012	Average	1654610	7381.483	455326.4	47224.76
2012	S.D.	2860501	9733.186	554584.3	26795.79
2013	Sum	55196797	205101	12012774	1428320
2013	Average	1903338	7072.448	414233.6	49252.41
2013	S.D.	3244338	9119.822	516898	27693.01
2014	Sum	62755174	207114	12520318	1503491
2014	Average	2163972	7141.862	431735.1	51844.52
2014	S.D.	3705541	9225.916	540609.6	29093.06

Source: Author's own calculation

A closer look reveals that the ranking of the various states also varies according to the penetration index. This has an important bearing as it implies that the utility of banking services may also vary across regions as per the local needs, perceptions, habits, convenience and so on.

**Table 2: Correlation Coefficient between Credit and Deposit Penetration.**

States	Pearson Correlation Coefficient	Spearman Correlation Coefficient
Andaman & Nicobar Islands	0.9761*	0.95*
Andhra Pradesh	0.9795*	1*
Assam	0.9928*	1*
Bihar	0.9261*	0.9333*
Chandigarh	-0.6658	-0.7*
Chhattisgarh	0.9405*	1*
Goa	0.7626*	0.7833*
Gujarat	0.9185*	0.9833*
Haryana	0.8889*	0.85*
Himachal Pradesh	0.8620*	0.9167*
Jammu & Kashmir	0.8674*	0.7833*
Jharkhand	0.9691*	0.8833*
Karnataka	0.2857	0.35
Kerala	0.9027*	0.7333*
Madhya Pradesh	0.9196*	0.9*
Maharashtra	-0.0014	0.1167
Manipur	0.9606*	0.9333*
Meghalaya	0.8455*	0.8
Nagaland	0.9018*	0.9833*
Delhi	-0.475	-0.55
Odisha	0.7706*	0.8667*
Puducherry	0.9397*	0.9833*
Punjab	0.9280*	0.95*
Rajasthan	0.9738*	1*
Tamil Nadu	0.9188*	0.8333*
Tripura	0.8679*	0.7167*
Uttar Pradesh	0.9935*	1*
Uttarakhand	0.9521*	0.95*
West Bengal	0.8839*	0.7667*

\* Significant at 5 per cent

Source: Author's own calculation



**Table 3: Coefficient of Variation of Penetration Ratios across States.**

<b>States</b>	<b>Deposit Penetration Ratio</b>	<b>Credit Penetration Ratio</b>
Andaman & Nicobar Islands	0.202808	0.182126
Andhra Pradesh	0.339922	0.169467
Assam	0.30065	0.209425
Bihar	0.33485	0.177443
Chandigarh	0.064975	0.172953
Chhattisgarh	0.37371	0.076351
Goa	0.108548	0.078957
Gujarat	0.248253	0.100026
Haryana	0.274914	0.124962
Himachal Pradesh	0.254474	0.111361
Jammu & Kashmir	0.258851	0.235963
Jharkhand	0.30121	0.151464
Karnataka	0.291743	0.042433
Kerala	0.249588	0.137732
Madhya Pradesh	0.345672	0.123555
Maharashtra	0.303442	0.28998
Manipur	0.470874	0.129988
Meghalaya	0.306994	0.107185
Nagaland	0.319824	0.183304
Delhi	0.193285	0.186162
Odisha	0.381157	0.081766
Puducherry	0.172325	0.207204
Punjab	0.207128	0.088258
Rajasthan	0.263689	0.117711
Tamil Nadu	0.313652	0.249829
Tripura	0.373966	0.152275
Uttar Pradesh	0.276284	0.105195
Uttarakhand	0.256666	0.082994
West Bengal	0.27395	0.063075

Source: Author's own calculation

## VI. EMPIRICAL RESULTS

The results of the fixed effects panel data estimation are provided in Table 4. The hausman test concluded in favor of fixed effects both in case of deposit and credit penetration models (Table 4). The dependent variable in case of model 1 is the number of deposit accounts per thousand of population, which measures the deposit penetration. The model 1 consists of fixed state effects to control for state-wise heterogeneity owing to variations in economic, social and demographic fabric across the regions. In line with the intuition, APPB is, actually having a negative and significant impact on deposit penetration. A unit decline in APPB leads to improvement of deposit penetration by approximately 2.0 accounts per thousand of population. The income effect, which is proxied by NSDP (constant prices), is having a positive and significant affect on the dependent variable. An improvement of thousand rupees is enhancing the proportional deposit accounts by approximately 7.2 units. The credit deposit ratio is coming out to be insignificant in the determination of deposit penetration. The level of industrialization, which is captured by the proportion of factories is turning out to be significant. The employee base is positively and significantly related to the deposit activities at 10 percent level of significance. Overall, these findings suggest that state level development and social characteristics have an important bearing on banking activity. The model 2 has credit penetration as the dependent variables, focusing on the credit side activity of banking. Unlike, deposit penetration, the population density is having a negative and significant influence on the credit penetration. A unit increase in population density is leading to deceleration of credit penetration by around 0.085 credit accounts per thousand of population. APPB is having a positive influence on the credit penetration like deposit penetration, income parameter, is significant with respect to credit penetration also. An increase of thousand rupees in the income is enhancing the proportional credit accounts by approximately 0.69 units. Credit deposit ratio is having a direct relationship with credit penetration. Similar findings are observed in case of proportion of factories. However, employment is significantly and negatively related to credit penetration. It points to the fact that the regional, social and developmental factors have positive implications for credit and deposit activities.

**Table 4: Panel Regression Estimates (Fixed Effects Model).**

Independent variables	Model I: Deposit Penetration		Model II: Credit Penetration	
	Coefficient	Standard Error	Coefficient	Standard Error
Population Density	0.075871***	0.017669	-0.00852**	0.003594
APPB	-0.02014***	0.004883	0.000549	0.000993
Log Per Capita Income	720.7953***	67.57466	69.78448***	13.74648
Credit-Deposit Ratio	-64.3251	64.73629	25.53444**	13.16908
Proportion of Factories	952.3472***	228.3177	186.5307***	46.44587
Proportion of Employment	8.00572*	2.907217	2.62674***	0.591405
Hausman Test	$\chi^2_{(5)}=41.96$ *** P-value= 0.0		$\chi^2_{(5)}= 11.51$ *** P-value= 0.000	
F-statistic <sup>1</sup> (p-value)	F (28,226)=43.28*** (0.000)		F (28,226)=42.40*** (0.000)	
F-test <sup>2</sup> (p-value)	F (6,226)=154.77*** (0.000)		F (6,226)=20.61*** (0.000)	
R <sup>2</sup> within	0.8043		0.3536	
R <sup>2</sup> between	0.7544		0.3277	
R <sup>2</sup> overall	0.7389		0.3302	
No. of Observation	261		261	
No. of Groups	29		29	

1. The F-1.Statistic of the equation (H<sub>0</sub>: All explanatory variables are equal to 0)

2. The F-test that all  $v_i = 0$

\*\*\* Significant at 1% level of significance. S.E. - Standard Error of Estimate.

\*Significant at 10% level of Significance.\*\* Significant at 5% level of Significance

## VII. CONCLUSION

The phenomenon of heterogeneous financial across Indian states is well documented in literature. This study contributes to existing research by providing potential correlates in terms of demographic and economic factors that explain the inter-state variations in level of financial inclusion in India. The findings suggest the continuous improvement of credit and deposit penetration during the sample period of 2006-14. At All-India level the credit penetration and deposit penetration are positively correlated implying that the regions having high credit penetration are also the regions having high deposit penetration and *vice versa*. As expected, the empirical analysis indicates a positive influence of population density on deposit penetration. But, the relationship is negative in case of credit penetration which implies that although credit disbursements have improved over time, but its growth has not matched with respect to the population increase. It also reflects that improved economic conditions might have reduced the need of credit dependency. The average population per branch is having a negative influence on deposit penetration. It confirms the beneficial impact of improvement of branch network on financial inclusion drive, which occurs due to greater accessibility and convenience. The income level is unambiguously having a positive influence on both penetration proportions. It points to the fact that level of economic condition is a vital determinant of financial inclusion efforts. The outcome corroborates the phenomenon of higher usage and requirement for financial services with increase in the standard of living. The proportion of factories to population is having a significant and positive influence on deposit and credit penetration ratios. It implies that region's structural and environmental setup has a role in determining the financial inclusion process. A positive coefficient for the employee proportion indicates that employed people seem to be more active, aware, interested with regard to banking activities related to both credit and deposit activities.

## REFERENCES

- Banerjee, Abhijit (2013). Microcredit Under the Microscope: What Have We Learned in the Past Two Decades, and What Do We Need to Know? *Annual Review of Economics*, **5**, 487-519.
- Beck, Thorsten (2012). The Role of Finance in Economic Development – Benefits, Risks, and Politics, in: Dennis Müller (Ed.): *Oxford Handbook of Capitalism*, 161-203.
- Chakrabarty K.C (2011). "Financial Inclusion and Banks: Issues and Perspectives", *Reserve Bank of India Bulletin* November issue, Reserve Bank of India.
- Chakrabarty K.C (2006). "Indian Bank: A Case study on Financial inclusion" Reading on financial inclusion published by IIBF& Taxman, New Delhi.
- Dev, M.S. (2006). "Financial Inclusion: Issues and Challenges", *Economic and Political Weekly*, Vol.41, pp. 4310-4313.
- Dr A Sarkar (2013). Financial Inclusion Part 2 Fostering sustainable Economic growth in India, *The Indian Banker* Volume **8** No 5.
- Dr, S Valli Devasena & Dr, M Gurupandit (2010). Financial Inclusion and Banking services, Third concept, *An International Journal of Ideas*, Volume **24**, No 284.
- Reserve Bank of India "Report on Financial inclusion".
- Rangarajan, C., Report of the Committee on Financial Inclusion, Ministry of Finance, Government of India, 2008
- Valanzuela. (2013). Improving Access to Banking: Evidence from Kenya. Policy Research Working Paper Series 6593, World Bank, Washington D.C.
- World Bank. 2006a. Measuring financial access: outlining the scope of current data collection efforts. Washington D.C.
- World Bank. 2006b. Indicators of Financial Access. Household - Level Surveys. Washington D.C.
- World Bank. 2013. *Global Financial Development Report*, Washington, D.C.