Research Chronicler: International Multidisciplinary Peer-Reviewed Journal
ISSN: Print: 2347-5021 www.research-chronicler.com ISSN: Online: 2347-503X

Determinants of Inter-District Disparities in Financial Inclusion in India

Dr. Jatinder Kaur*

Associate Professor& HOD, PG Dept. of Commerce, Guru Gobind Singh College for Women, Chandigarh, S. A. S. Nagar (Mohali), Punjab-160071(*The author is grateful to ICSSR for awarding post doc fellowship to work on the theme of Financial Inclusion)

Abstract

This paper attempts to identify the determinants of inter-district disparities in financial inclusion in India using a Financial Inclusion Index (FII) for 632 districts of India developed by the author (2017). The study considered literacy rate, degree of urbanization, banking habits and proportion of working population as the main socio-economic determinants of financial inclusion. The sources of variations have been studied by applying the techniques of correlation and step-wise regression with district-wise Financial Inclusion Index as dependent variable and the selected socio-economic indicators as independent variables. Among the four variables literacy rate and proportion of working population turned out to be non-significant with the remaining two variables emerging as important in step-wise regression test. However, urbanization turned out to be the single most important source of inter-district variations in financial inclusion across India explaining 31% of the variations.

Key Words: Financial Inclusion Index, Literacy Rate, Urbanization, Banking Habits, Working Population

Introduction: Almost all the countries across the globe are making efforts to promote financial inclusion as a prerequisite for achieving the goal of inclusive growth. Access to easy and affordable finance especially to poor and weaker sections of the society has been recognized as a key objective to reduce poverty and ensure sustainable development. India is no exception. Indian government has also identified financial inclusion as an important pillar of inclusive growth and has launched various schemes to bring the financially excluded population under the umbrella of formal financial sector. However, the major problem faced by India is not only the presence of large population base which is financially excluded but also the growing regional disparities across its various regions, states and districts as well as classes. Regional disparities are almost inevitable in the course of development; some regions offer more advantages due to natural, administrative and historical factors than others and regions which gain a lead tend to become more and more prosperous. Though, balanced development is not an essential precondition to achieve higher growth and overall development at the national level but it is of paramount importance for integrated development of national economy.

At the time of independence, Indian banking was urban biased and thus concentrated mainly in urban areas. The banks were

mostly following the profit-oriented approach and thus credit was granted on the basis of security and was not need based. This approach of banks led to lop sided development of banking in urban areas and neglection of rural areas and priority sectors of the economy. So in order to ensure growth of banking in unbanked areas and promoting need based credit, government adopted social controls and introduced regulatory mechanism which was later on replaced by open market system in 1990-1991 with the introduction of LPG. Since then, considerable progress has been made by Indian banking both geographically as well as in terms of providing facilities to the neglected sectors as depicted in Table 1.

It is seen that the number of bank branches have risen to more than fifteen fold from 8262 in 1969 to 125672 in 2015 resulting in a significant decline in the population served per branch from 64000 to 10300 persons. A significant outcome of the branch expansion policy has been its focus on opening of the new branches in unbanked areas. As a result, more than 65% of the total new branches have been opened in rural and semi-urban areas since then and only 35% of the new branches have been opened in urban and metropolitan areas. In terms of access to credit, the share of priority sector in total credit also rose from 14% to 36.6% over the same period. Thus, banks have been playing an important role in meeting the credit requirements of the priority sectors through proper sectoral allocation and have been rendering a great support to the government in promoting growth with stability and social justice through deployment of funds in a most productive and efficient manner.

Table 1: Progress of Commercial Banking since Nationalization

Indicators	June 1969	March 2015
Number of Branches	8262	125672
Of Which:		
Rural	1833	48498
Semi-Urban	3342	33703
Urban	1584	22997
Metropolitan	1503	20474
Population per Branch (in thousands)	64	10.3
Deposits (Rs in billions)	46.46	88989.01
Per Capita Deposits (Rs.)	88	68576
Deposits per Branch (Rs. in millions)	5.6	708.1
Credit (Rs. in billions)	36	64998.29
Per Capita Credit (Rs.)	68	50089
Credit per Branch (Rs. in millions)	4.4	517.2
Advances to Priority Sector (Rs in billions)	5.04	23781.71
Share of Priority Sector in total Credit (%)	14	36.6
Credit-Deposit Ratio	77.5	73.0

Source: Banking Statistics, Basic Statistical Returns of RBI, March 2015, Vol.44

No doubt banks have come a long way in spreading its network across all the regions of the country especially in rural and semi-urban areas, still complete financial inclusion is a distant dream. In terms of, at least one bank account per household, most of the states have achieved 100% financial inclusion but the usage of these savings accounts by people for depositing and borrowing money is still very low in India and varies widely across different regions of the country. Many researchers have attempted to measure financial inclusion across different geographical boundaries of India and all the studies have found presence of wide variations across different regions of the country (Kaur J, 2017; Jesudasan & D'Souza, 2016; Mukhopadhyay, 2016; Ambarkhane et al., 2014; Gupta et al.,2014; CRISIL, 2013; Chithra & Selvam, 2013; Bagli and Dutta, 2012; Pal and Vaidya, 2011; Kumar and Mishra, 2011; Laha and Kuri, 2010; Mehrotra et al., 2009). In all these studies, the authors have measured financial inclusion across different geographical boundaries by constructing financial inclusion index incorporating different dimensions of inclusive finance and found some regions to be highly developed while others were found to be far below the average depicting presence of glaring inter-regional disparities. The present paper is an attempt to identify the factors responsible for these disparities in financial inclusion.

Review of Literature: Though lots of literature exists concerning the measurement of financial inclusion, not much work has been done to find out its determinants. Some of the research work done in this has been discussed below:

Nitin Kumar (2012) attempted to probe the causal factors of financial inclusion across states of India by taking six determinants of financial inclusion namely population density; average population per bank branch; per capita net state domestic product; credit deposit ratio; the proportion of factories which was taken as a proxy for the level of industrialization and individual employment status. The study found increase in bank network represented by average population per branch, per capita net state domestic product, proportion of factories and proportion of employed population to be positively associated with deposit and credit penetration. The results indicated a negative influence of population density on deposit penetration while it had insignificant effect on credit penetration. The study concluded that regional economic conditions of a state greatly influence its level of financial inclusion.

Kuldeep Singh & Anand Singh Kodan (2012) in their study examined the determinants of financial inclusion amongst the states of India. The authors used literacy, employment rate, sex-ratio, per capita net state domestic product and urbanization as the factors of financial inclusion. They analyzed the relationship between financial inclusion index and various factors with the help of regression analysis. The result depicted that the per capita NSDP and urbanization had a highly significant and positive association with financial inclusion level of a state while the rest of the indicators namely literacy, employment and sex-ratio were found to be insignificant.

Sahu (2013) in her study constructed the Index of Financial Inclusion (IFI) for the states of India and also studied the relationship between Financial Inclusion Index and some selected socio-economic variables. The socio-economic variables selected by the author included per-capita income, literacy, population, branch density, no of SHGs and per capita net state domestic product (PNSDP). The correlation and regression results showed that 34 percent of the change in financial inclusion index was explained by per capita net state domestic product alone.

Gupta and Singh (2013) used the Financial Inclusion Index (FII) developed by Chattopadhya to study the association between financial inclusion and literacy level .They assessed the correlation between usage dimension of Financial Inclusion Index and literacy level in India using the Karl Pearson coefficient of correlations. The study revealed that on an overall basis literacy rate does not have a high negative relationship with financial inclusion though negative relationship existed at all the three levels of financial inclusion index, that is, high, medium and low. The relationship was found to be positive at the country level. Negative correlation showed that literacy rate does not affect the financial inclusion. Low positive correlation at country level indicated that the literacy level had low impact on financial inclusion in the country. Large variations in the correlation between the Financial Inclusion Index and literacy rate in different states indicated that financial exclusion in India was not mainly due to the lower literacy rates. For instance, the state of Kerala had a very low value of the usage dimension of Financial Inclusion despite highest literacy rate, while Karnataka comparatively had a higher value of usage dimension in relation to the literacy level.

Chithra & Selvam (2013) in their study used socio-economic variables (represented by GDP per capita, literacy rate, proportion of rural population, unemployment level and households), infrastructural variables (consisting of road network, no. of telephone both landline and mobile per person, access to information per person through newspapers, computer & internet) and banking variables (represented by deposit penetration, credit penetration, credit-deposit ratio and investment ratio) as determinants of financial inclusion across states of India. Amongst the determinants of financial inclusion socio-economic factors like income, literacy and population were found to have significant association with the level of financial inclusion. The study also found significant association between financial inclusion and physical infrastructure relating to connectivity and information. Among the banking variables deposit and credit penetration were found having significant association with financial inclusion but credit-deposit ratio and investment ratio were found to be non significant.

Nandru, Anand and Rentala (2016) conducted a study to identify the determinants of financial inclusion by providing evidential support for South Indian states. The study used Index of Financial Inclusion (IFI) developed by CRISIL as the dependent variable. The authors applied multiple regression analysis

to examine the determinants of financial inclusion for the states in South India. Based on evidence from previous studies, they considered five important determinants of financial inclusion namely branch penetration, size of population, gender ratio, deposit to credit penetration ratio and literacy rate. The results from regression analysis indicated that among all the independent variables, population size, gender ratio, branch penetration and deposit to credit penetration ratio showed significant impact on financial inclusion for Indian states.

Sathiyan and Panda (2016) analyzed the pattern, progress, and determinants of financial inclusion in India during the post-reform period using data for 28 Indian states for the years 2001 and 2011. A multiple regression model was used to examine the determinants. The study found that though India has witnessed an increase in percentage of people accessing banking services, particularly deposits in the post-reform period, still a large proportion of rural people are excluded from banking services. The regression analysis suggested that the increase in the number of bank accounts availed by households is determined by factors such as the number of bank branches, population dependency per branch, and industry concentration in the state. Socioeconomic factors like per-capita income of the state, literacy rates, and urbanization did not emerge to be significant factors. Branch penetration turned out to be playing an important role in financial inclusion in India. The authors concluded that effective implementation of the financial literacy programs and leveraging existing bank branches will go a long way in achieving greater financial inclusion.

N**eed and Objectives of the Study:** From the review of literature, it is seen that different authors have used different variables as determinants of financial inclusion and reached at the conclusion. However, an important point to be mentioned here is that almost all the authors have taken state as a unit of measurement. State being a bigger unit, may not give true picture and for inclusive growth it is a must to study the problem at grass route level. In India, district is the smallest administrative unit so it was thought pertinent to study the relationship between selected determinants of financial inclusion and financial inclusion index at the district level. The differential levels of financial inclusion may be associated with different level of socio-economic indicators affecting the progress of inclusive finance across these different districts. These indicators, if recognized and quantified, would be of great help in pinpointing the sources of disparities in financial inclusion across India. Moreover, the identification of these factors would also be helpful in formulation of future policies and determining priorities to improve the financial inclusion level of backward regions for promoting inclusive growth. It will also be helpful in determining the direction in which future investment in different socio- economic factors is required to be made and also whether existing surpluses of any factor in a region can be diverted to other regions for better and fuller utilization.

Data Base and Methodology: The study covers 632 districts belonging to all the 36

states/UTs of India for the year 2013. Since banking data for districts of Delhi is not available separately so Delhi as a whole is taken as a single district. In order to identify the major determinants of financial inclusion, FII developed by the author herself (Kaur J, 2017) has been used as a dependent variable.

Variable Specification: For the present analysis, the following four variables have been considered to study their impact on the level of financial inclusion.

I. Literacy Rate (LR) which is taken to be the ratio of literate population to total population. Literacy rate is an important indicator expected to have a direct impact on the promotion of financial inclusion as it is presumed that higher the proportion of educated population in a particular region, higher will be the banking habits and thus more developed will be the financial services in that area.

II. Banking Habits (BH) which is taken to be the proportion of households availing banking services to total number of households. The indicator has been chosen to be the representative of banking development as it is expected that the more, the people use services of banks; higher will be the level of financial inclusion.

III. Degree of Urbanization (UP) which is taken to be the proportion of urban population to total population. The development of a particular region is generally associated with the growth of urbanization as it is being asserted that urban areas are the "engines of inclusive economic growth" across the globe especially in the developing countries. So urbanization has been taken to be the other important indicator affecting banking development. It provides the necessary infrastructure in the region and creates conducive and favorable climate for banking development by promoting entrepreneurship and industrial growth.

IV. Proportion of working population (WP) which is taken to be the ratio of main workers to total population. The working population of a region represents the proportion of total population engaged in economically productive activities concerning different sectors of the economy. It is presumed that working population and growth of banking is directly related as working people will make more use of banking services.

Thus, the above four variables have been selected as determinants of financial inclusion to identify the factors affecting financial inclusion levels across different districts of India. Moreover, the availability of data was another major consideration in the selection of these variables.

Statistical Techniques: To analyze the association between FII and the selected socio-economic indicators, the following statistical tools have been used:

Correlation Analysis

Correlation analysis is a tool that measures the association between two variables. There are various methods of calculating correlation but the two most commonly methods used in research are Pearson and Spearman coefficient of correlations. In this study Pearson correlation technique has been used to measure the degree of relationship. The formula for calculating Pearson's correlation is:

$$r = \frac{\sum XY - \frac{(\sum X)(\sum Y)}{n}}{\sqrt{\left(\sum X^2 - \frac{(\sum X)^2}{n}\right)\left(\sum Y^2 - \frac{(\sum Y)^2}{n}\right)}}$$

where
r = correlation coefficient
x = socio-economic indicators i.e. Literacy Rate, Urbanization, Banking Habits and Worker Participation Rate
y= Financial Inclusion Index

Multiple Regression Analysis

Multiple regression measures the effect of two or more independent variables on a single dependent variable simultaneously and predicts the dependent variable from the set of independent variables. The regression results are interpreted with the help of *t test* and adjusted R^2 and F test. The b coefficients in the regression equation express the unit change in the dependent variable due to the change in the value of the predictor. There are various methods of regression analysis, such as stepwise regression, enter method, backward and forward method, but for this study stepwise method of regression has been used to identify the important indicators explaining the variations in financial inclusion. Stepwise regression essentially does multiple regression a number of times, each time removing the weakest correlated variable. The process systematically adds the most significant variable or removes the least significant variable during each step. At the end only those variables are left that explain the distribution best.

The regression equation has been presented as:

$Y_i = \alpha + \beta_1 x_1 + \beta_2 x_2 + \ldots\ldots\ldots + \beta_n x_n$

Where

Y_i is the outcome variable,

α is the intercept point of the regression line,

β_1 is the coefficient of the first important predictor (x_1)

β_2 is the coefficient of next important predictor entering the models (x_2),

β_n is the coefficients of the last nth predictor (x_n)

Findings of the Study: Table 2 depicts the correlation matrices of the selected variables with the dependent variable i.e. Financial Inclusion Index. It is seen from the table that all the selected four variables are significantly correlated with index of financial inclusion. Except the working population proportion, the rest three indicators are positively related with index indicating that any increase in their level i.e. increase in literacy, degree of urbanization and banking habits will contribute towards the promotion of inclusive finance. Proportion of working population has been found to be significantly but negatively related with level of financial inclusion. It also has negative correlation with all the three other independent variables. If we look at the degree of association amongst the independent variables, the degree of correlation is low. Although, there is statistically significant relation between them, there are no signs of multi-co linearity which usually happen if correlation between independent variables is 0.80 or more.

Table 2: Correlation Coefficient Matrix

		FII	UP	LR	WP	BH
FII	Pearson Correlation	1	.556(**)	.344(**)	-.113(**)	.284(**)
	Sig. (2-tailed)		.000	.000	.004	.000
	N	632	632	632	632	632
UP	Pearson Correlation	.556(**)	1	.514(**)	-.219(**)	.222(**)
	Sig. (2-tailed)	.000		.000	.000	.000
	N	632	632	632	632	632
LR	Pearson Correlation	.344(**)	.514(**)	1	-.138(**)	.332(**)
	Sig. (2-tailed)	.000	.000		.001	.000
	N	632	632	632	632	632
WP	Pearson Correlation	-.113(**)	-.219(**)	-.138(**)	1	-.250(**)
	Sig. (2-tailed)	.004	.000	.001		.000
	N	632	632	632	632	632
BH	Pearson Correlation	.284(**)	.222(**)	.332(**)	-.250(**)	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	632	632	632	632	632

** Correlation is significant at the 0.01 level (2-tailed).

Overall, it has been observed that urbanization has a major role to play in boosting the level of financial inclusion.

In order to identify the important variables of inclusive finance, step-wise multiple regression technique was applied between the dependent variable (FII) and selected predictors. The results of the analysis are given in Table 3.

It is seen from table 3.1 that, of the four variables, only two variables namely; degree of urbanization (UP) and banking habits (BH) entered the list while the rest of the two i.e. literacy rate (LR) and proportion of working population (WP) turned out to be weakest correlated variables and did not enter the list of variables explaining the model.

Table 3: Step-wise Regression Results

Table 3.1: Variables Entered/Removed(a)

Model	Variables Entered	Variables Removed	Method
1	UP	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	BH	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a Dependent Variable: FII

The overall correlation between the variables which entered in the models and the dependent variable (FII) is given in table 3.2. It is seen that Model 2, with two variables together, explained about 34% of the variation in the level of financial development across different districts of India. However, Degree of Urbanization turned out to be the single most important indicator as a source of variations in financial inclusion level as is clear from Model 1, where it alone is explaining 31% of the variations while both the indicators together explained 34%.

Table 3.2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.556(a)	.310	.309	.26248
2	.580(b)	.337	.334	.25751

a Predictors: (Constant), UP
b Predictors: (Constant), UP, BH

Table 3.3 gives the results of F-test. In the linear regression F-test has the null hypothesis that there is no linear relationship between the variables (in other words $R^2=0$). Since the F-test results are highly significant so the null hypothesis is rejected it is assumed that there is a linear relationship between the variables in this model.

Table 3.3: ANOVA(c)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.471	1	19.471	282.617	.000(a)
	Residual	43.403	630	.069		
	Total	62.874	631			
2	Regression	21.164	2	10.582	159.578	.000(b)
	Residual	41.710	629	.066		
	Total	62.874	631			

a Predictors: (Constant), UP
b Predictors: (Constant), UP, BH
c Dependent Variable: FII

Thus, the multiple step-wise regression models with the selected two predictors produced the following regression equation;

$R^2 = .337$, $F(2, 629) = 159.58$, $p < .001$.

The next table 3.4 shows the multiple linear regression estimates including the intercept and the significance levels. The results depict that intercept as well as both the variables i.e. degree of urbanization and banking habits are highly significant as is clear from the p value of the t-test for each predictor.

The resultant regression model from the Table 3.4 is;

FII=49.60+.008 (UP) +.003 (BH)

The equation shows that one point increase in UP will lead to .008 point increase in FII keeping BH constant. If UP is kept constant, a one point increase in BH will lead to .003 point increase in FII.

Table 3.4: Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	49.772	.017		2911.856	.000
	UP	.009	.001	.556	16.811	.000
2	(Constant)	49.603	.038		1322.507	.000
	UP	.008	.001	.519	15.583	.000
	BH	.003	.001	.168	5.053	.000

a Dependent Variable: FII

Results and Conclusions:

From the above analysis it is seen that out of the four determinants, only two variables namely; degree of urbanization and banking habits turned out to be important determinants which entered into the variable list in step-wise regression. However, Urbanization is found to be the single most important indicator explaining 31% of the variations in financial inclusion level across districts of India. As far as association of the four explanatory variables with Financial Inclusion Index is concerned, all were found to be significantly associated but proportion of working population was found to be inversely related. **Mehrotra et al. (2009)** also found the inverse relationship between working population and credit widening but they found the relationship to be non-significant as against the results of present study where association is found to be significant. Though, all the explanatory variables were found to be significantly associated with FII but only two i.e. urbanization and banking habits were found to be important in explaining variations while literacy rate and working population proportion turned out to be least important. Various authors have studied the association between literacy rate and Financial Inclusion but their results vary. While **Mehrotra et al. (2009), Sahu (2013)** and **Gupta et al. (2014)** found high positive association between FII and Literacy, **Gupta & Singh (2013)** found negative but low relationship between literacy and FII. Similarly, literacy as a determinant of financial inclusion was found to be important by **Ghosh (2012)** and **Chithra & Selvam (2013),** while **Nandru et al. (2016)** found literacy to be non-significant. The findings of the study are in line with **Mehrotra et al. (2009), Sahu (2013), Gupta et al. (2014) and Nandru et al. (2016).**

To conclude, the study found Urbanization to be the most important factor explaining variations in financial inclusion in line with the findings of **Singh & Kodan (2012).**

Policy Implications: The positive and significant association between FII and urbanization clearly implies that districts with higher proportion of urban population are more financially developed as compared

to districts with higher proportion of rural population. It means the rural population is not using the formal financial services. So there is an urgent need to undertake case studies in rural areas to find out the reasons for low usage of formal financial services in these areas. Banks need to organize financial literacy campaigns in rural areas, to make the people aware about the various financial products available for them and the benefits which they can derive by using the same. Banks need to focus their policies towards promotion of financial inclusion specifically in rural areas.

References:

1. Ambarkhane, Dilip. Singh, Ardhendu Shekhar and Venkataramani, Bhama. "Measuring Financial Inclusion of Indian States", 2014. Web. 15 December 2016 <https://ssrn.com/abstract=2485776> or <http://dx.doi.org/10.2139/ssrn.2485776>.
2. Bagli Supravat and Dutta Papita. "A Study of Financial Inclusion in India", *Radix International Journal of Economics and Business Management*, Vol. 1, Issue 8, Aug. 2012. Web. 15 December 2016 <http://rierc.org/business/paper26.pdf>.
3. Chithra, Natarajan and Selvam, M. "Determinants of Financial Inclusion: An Empirical Study on the Inter-State Variations in India", July 19, 2013. Web. 17 December 2016 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2296096>.
4. CRISIL Inclusix. "An index to measure India's progress on financial inclusion", Vol. 1. (2013). Print.
5. CRISIL Inclusix. "An index to measure India's progress on financial inclusion", Vol.2. (2014). Print.
6. CRISIL Inclusix. "An index to measure India's progress on financial inclusion", Vol.3. (2015). Print.
7. Ghosh Saibal. "Determinants of Banking Outreach: An Empirical Assessment Of Indian States", *The Journal of Developing Areas*, Tennessee State University, College of Business, 46.2 (July-December 2012): 269-95. Print.
8. Gupta Anurag, Chotia Varun &Rao NV Muralidhar. "Financial Inclusion and Human Development: A State-wise Analysis from India", *International Journal of Economics, Commerce and Management*, United Kingdom. 2.5 (2014). Web. 25 December 2016 <http://ijecm.co.uk/wp-content/uploads/2014/05/2510.pdf>.
9. Gupta Pallavi and Singh Bharti. "Role of Literacy Level in Financial Inclusion in India: Empirical Evidence"' *Journal of Economics, Business and Management*, 1.3 (August 2013): 272-76. Print
10. Gupte Rajani, Venkataramani Bhama and Gupta Deepa. "Computation of financial inclusion index for India", International Conference on Emerging Economies – Prospects and Challenges (ICEE-2012), published in *Procedia - Social and Behavioral Sciences* 37 (2012), 133 – 149. Web.
11. Jesudasan Smita and D'Souza Renita. "A Cross-Dimensional Analysis of Financial Inclusion and Development across India", *International Journal of Applied Business and Economic Research*, 14.14 (2016): 323-51. Print.

12. Kaur J. "Rural-Urban Disparities in Financial Inclusion in India: A District Level Study", Post Doctoral Fellowship Report, ICSSR, New Delhi (2017). Print.
13. Kumar Chandan and Mishra Srijit. "Banking Outreach and Household level Access: Analyzing Financial Inclusion in India", (2011). Web. 5 January 2017 < http://www.igidr.ac.in/conf/money1/Banking%20Outreach%20and%20Household%20level%20Access.pdf>.
14. Laha Arindam and Kuri Pravat Kumar. "Demand for and supply of financial inclusion in India: An inter-state analysis", *ELK Asia Pacific Journal of Finance and Risk Management* 5.1 (2014): 1-18. Print.
15. Mehrotra N, P V Nair, G and Sahoo, B. B. "Financial Inclusion- An Overview", National Bank for Agriculture and Rural Development (2009). Web. 29 December 2016 <https://www.nabard.org/pdf/OccasionalPapersonFinancialInclusion_080509.pdf>.
16. Nandru Prabhakar, Anand Byram and Rentala Satyanarayan. "Exploring the factors impacting financial inclusion: Evidence from South India", *Annual Research Journal,* Symbiosis Centre for Management Studies (SCMS), Pune. 4.3 (March 2016): 1-15. Print.
17. Kumar Nitin. "Financial Inclusion and its determinants: Evidence from state level empirical analysis in India", (2012). Web. 2 December 2016. http://www.igidr.ac.in/conf/money/mfc-13/-Financial%20Inclusion%20and%20Its%20Determinants_Nitin.pdf.
18. Pal Rupayan and Vaidya Rajendra. "Outreach of Banking Services across Indian States: 1981–2007 Converging or Diverging?" *India Development Report* (2011): 141-54. Web. 18 December 2016 <http://www.igidr.ac.in/pdf/publication/IDR-2011.pdf>.
19. Sahu Kabita Kumari. "Commercial Banks, Financial Inclusion and Economic Growth in India", *International Journal of Business and Management Invention* 2.5 (May 2013): 1-6. Print.
20. Sathiyan Sanjana and Panda Prasant Kumar. "Financial Inclusion in India: An Analysis of Pattern and Determinants" *Indian Journal of Finance* 10.4 (April 2016): 41-53. Print.
21. Singh Kuldeep and Singh Kondan. "Financial Inclusion, Development and Its Determinants: An Empirical Evidence of Indian States" *The Asian Economic Review* 53.1 (2012): 115-34. Print.
22. Subbarao, D. "Financial inclusion challenges and opportunities" speech delivered by Dr. Duvvuri Subbarao, Governor, Reserve Bank of India, Banker's club, Kolkata (9 December 2009).
23. http://www.censusindia.gov.in/DigitalLibrary/Archive_home.aspx