

AVAILABILITY OF FINANCIAL INCLUSION IN INDIA: AN INTERSTATE ANALYSIS

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ABSTRACT

Financial Inclusion is such a process that aims to cover each individual in the economy in the canopy of formal finance, by providing them timely and adequate financial services, and that too at an affordable cost. Ensuring access and availability to basic banking services are the very basis of financial inclusion. Although the Government of India is trying laboriously to ensure inclusion of 'every individual', there is a great disparity in the inclusion stance of different states of the country. The current article is an aim in this regard, and brings out the discrepancy across the Indian states in terms of the 'availability' aspect of financial inclusion. The results highlight that there is a wide and vivid gap between the 'banking availability' levels of the Northern states vis-s-vis the North Eastern States of the country. The efforts need to therefore be streamlined towards those in the economically downtrodden states of the country to up-pace the effectiveness of the task of financial inclusion in the country.

Keywords: *Financial Inclusion, Financial Availability, Bank Availability.*

Introduction

Driven by the objective of reaching out to the 'bottom of the pyramid', financial inclusion assumes an overtly important role in a class inequality smitten, developing country like India. For a country, characterized by a wide and a vivid gap in the inclusion stance across geographic areas and socioeconomic classes; the need for a study focusing on the extent and adequacy of financial access and availability becomes explicit. The need becomes even more pronounced for facilitating a comparison of the status of financial inclusion, before and after 2005-06 (the period wherein RBI directed banks to make financial inclusion a policy objective).

According to RBI's Financial Inclusion Plan, (FIP) 2010, every village, located in even the remotest corner of the country, with a population greater than 2000, needs to be financially covered through a bank or any other means of Point of Sale (PoS). Availability of banks in the form of brick and mortar branches, ATMs, internet or mobile banking helps in the adequate utilization of financial services. The need, however, of physical brick and mortar branches, even in

an age of technological revolution and branchless banking cannot be ruled out. Considering demographic penetration as a measure of banks' outreach in being available to an adequate number of individuals; the number of bank branches per 1,00,000 adults has been used as a measure for it. Higher demographic branch availability can therefore be considered as a testimonial of easier access, owing to fewer potential clients per outlet (Ravi Kumar, 2013).

Geographic branch availability or geographic branch penetration is one of the most important measures of financial inclusion (Beck et al, 2007; Chakravarty and Pal, 2010). Penetration of branches is important to ensure availability of branches to people in terms of geographic access (Ravikumar, 2013). Number of branches of SCBs per 1000 square kilometers has, therefore, been used as a measure for it. Higher geographic bank availability has implications for shorter distance to banks, and thus, unproblematic geographic access. Ensuring penetration of branches at reasonably small distances is therefore, essential to ensure greater bank linkage (with individuals). ATM availability is another significant dimension of financial inclusion, but the same could not be incorporated in the current research, due to paucity of consistent data pertaining to it.

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Defining Financial Inclusion

In the earlier periods, the term 'financial exclusion', was used to highlight limitations in access to the banking network (Anderloni et al., 2008). Before the era of liberalization, the term was used to describe both, demand and supply side bottlenecks to adequate financial access (Rahim et al, 2009). Early literature on financial exclusion has been defining it in the broader context of social exclusion (Kempson and Whyley, 1999; Sarma, 2008). The modern day definitions of financial inclusion consider its importance in not only providing access to the formal financial system, but also in ensuring the availability of timely, easy and affordable range of financial products and services to the vulnerable groups (RBI, 2008).

Development agendas today, thus consider inclusion as means, and not an end in solving the developmental problems (Kodan and Chhikara, 2013). An inclusive financial system not only helps to enhance efficiency and welfare of the population at large, but also facilitates effective utilization of productive resources, thereby reducing the cost of capital (Sarma, 2012). In addition, it also improves the management of finances and prevents the growth of informal sources of credit supply (such as moneylenders), which are often found to be exploitative (Sarma, 2008). Various definitions of financial inclusion, proposed by different authors and/or institutions have been presented in a summarized form in Table 1

Table 1: Definitions of Financial Inclusion/Exclusion

Title	Author/Institution	Year	Term	Definition
Geographies of Financial Exclusion: Financial Adandonment in Britain and United States	Leyshon and Thrift	1995	Financial Exclusion	"The processes that serve to prevent certain social groups and individuals from gaining access to the formal financial system"
Repot of the Committee on Financial Inclusion, India	Rangarajan Committee (RBI)	2008	Financial Inclusion	"The process of ensuring access to financial services and timely and adequate availability of credit where needed by vulnerable groups such as the weaker sections and low income groups at an affordable cost".
Access to Finance and Development: Theory and Measurement	World Bank	2008	Financial Inclusion	"Broad access to financial services implies an absence of price and non price barriers in the use of financial services".
Index of Financial Inclusion - A measure of financial sector inclusiveness	Mandira Sarma	2012	Financial Inclusion	"A process that ensures the ease of access, availability and usage of formal financial system for all members of an economy".

Source: Author's compilation on the basis of review of literature.

Database and Research Methodology

- *Sample and Reference Period*

The study spans 25 states, 4 union territories and 6 geographic areas of the country; and considers a period from April 1994 to March 2014.

- *Database*

Data for the indicators has been sourced from RBI's Basic Statistical Report of Scheduled Commercial Banks in India, and the Census of India Reports for various years.

- *Methodology*

The scores for the demographic and geographic availability of financial inclusion have been arrived at by computing number of bank branches per 1,00,000 adults, and per 1000 kilometer square respectively, for all states, UTs and the geographical areas. They have subsequently been analyzed using descriptive statistics and Compounded Annual Growth Rates (CAGRs).

Results and Discussion

- *Demographic Availability*

Tables 2 (a) and (b) reflect the country's elevation from 11.316 branches per 1,00,000 adults in 1994-95, to 13.845 in 2013-14. Further, the mean demographic branch availability increased from 13.527 in 1994-95, to 17.712 in 2013-14. While the highest value for demographic branch availability increased from 31.519 in 1994-95, to 54.204 in 2013-14; the minimum value, however, marginally declined from 7.044 in 1994-95, to 6.339 in 2013-14. This, in turn, clarifies presence and even increase in variability in terms of demographic availability across the areas.

Region-wise, demographic availability of bank branches was observed to be high in the Northern, Southern and Western regions;

while it was low in in Central, Eastern and North Eastern regions. State-wise (including UTs), Chandigarh (1994-95 to 1998-99) and Goa (1999-2000 and thereafter) demonstrated highest penetration of bank branches per 1,00,000 adults during different years. The demographic availability in Manipur emerged to be the least. With the exceptions of Mizoram, Meghalaya and Arunachal Pradesh, all North-Eastern states exhibited inferior demographic branch availability. The coefficient of variation, increased from 40.0 per cent in 1994-95 per cent to 56.5 in 2013, depicting increasing inter-region/state variability in demographic bank availability.

Table 3 reflects a CAGR of meager 0.602 per cent in terms of demographic branch availability in the country. This however, does not mean stagnation in growth of the number of bank branches. The bank branches in the country have although almost doubled from 63790 branches (in absolute terms) in 1994-95, to 120857 in 2013-14 (Basic Statistical Returns of Scheduled Commercial Banks, various issues), but the population has increased at a faster rate and has resulted in a low CAGR. However, the growth rates (CAGRs) of Southern (1.207 per cent) and Northern (1.106 per cent) regions were found to be greater than the all-India growth rate (CAGR). On the downward side, the growth rates of the Eastern and North-Eastern regions were found to be negative. Considering the growth rates in the states, it was only in Sikkim, Haryana and Kerala, that the demographic branch availability exhibited a CAGR greater than 2 per cent. In most of other states and UTs, the CAGRs were found to be extremely low. The figures iterated almost negligible (and even negative) CAGRs in the states of the North-Eastern region. Compared to earlier periods, it was only during 2009-10 to 2013-14, that the regions/states UTs depicted moderate average annual growth rates.

Table 2(a): Extent of Demographic Availability of Bank (SCBs) Branches in India.

REGION/ STATE/ UNION TERRITORY	Years																			
	199 4- 95	199 5- 96	199 6- 97	199 7- 98	199 8- 99	199 9- 00	200 0- 01	200 1- 02	200 2- 03	200 3- 04	200 4- 05	200 5- 06	200 6- 07	200 7- 08	200 8- 09	200 9-10	201 0- 11	201 1- 12	201 2- 13	2013
NORTHERN REGION	14.1 72	14.0 28	13. 883	13. 772	13.6 46	13. 370	13. 138	12. 971	12. 779	12. 645	12.6 75	12.6 27	12.9 06	13.5 17	13.9 07	14.5 33	15.1 85	16.3 79	17.5 43	19.1 10
Haryana	12.4 85	12.2 85	12. 172	12. 214	12.1 30	11. 874	11. 684	11. 621	11. 585	11. 507	11.5 47	11.7 09	12.0 61	12.8 24	13.3 90	14.4 85	15.5 46	16.9 87	18.6 55	21.0 70
Himachal Pradesh	21.6 37	21.1 70	20. 739	20. 501	20.1 35	19. 725	19. 274	18. 929	18. 657	18. 297	18.2 14	18.1 50	18.6 89	19.2 65	19.9 78	20.8 20	21.6 23	22.9 18	24.4 06	26.2 44
Jammu & Kashmir	14.8 81	14.5 22	14. 207	13. 950	13.7 47	13. 432	13. 123	13. 038	12. 737	12. 575	12.5 42	12.2 10	12.2 00	12.6 23	12.7 84	12.8 42	12.8 77	14.4 59	16.0 63	17.6 38
Punjab	16.1 90	16.2 83	16. 323	16. 345	16.2 67	16. 045	15. 813	15. 708	15. 629	15. 500	15.5 72	15.5 73	15.9 88	16.7 23	17.1 91	18.1 99	19.3 01	21.0 80	23.0 46	25.7 79
Rajasthan	11.4 81	11.3 79	11. 190	10. 976	10.7 99	10. 529	10. 300	10. 072	9.8 23	9.6 08	9.50 4	9.32 4	9.42 6	9.73 8	9.84 5	10.0 69	10.4 03	11.0 79	11.6 96	12.5 36
Chandigarh	30.8 32	31.4 39	32. 526	32. 937	33.4 45	33. 359	32. 742	31. 968	32. 525	33. 196	34.2 65	35.1 31	36.7 92	39.8 86	41.4 83	43.1 27	43.6 49	46.0 31	47.5 50	49.5 93
Delhi	18.0 56	17.5 95	17. 353	17. 240	17.2 41	16. 838	16. 674	16. 484	16. 204	16. 405	16.9 20	17.1 66	17.8 17	19.1 24	20.1 72	21.2 29	22.1 24	23.5 62	24.2 87	25.2 76
NORTH EASTERN REGION	9.53 2	9.31 8	9.1 18	8.8 90	8.67 2	8.4 41	8.2 45	7.9 75	7.7 62	7.6 17	7.53 7	7.39 2	7.42 4	7.55 1	7.71 9	7.84 3	8.03 5	8.43 9	8.93 2	9.86 2
Arunachal Pradesh	12.4 95	12.1 97	11. 905	11. 621	11.3 43	11. 073	10. 808	10. 550	10. 231	9.6 34	9.48 3	9.33 2	9.44 3	9.41 2	9.49 8	9.57 0	9.97 7	10.8 00	11.5 65	13.5 44
Assam	8.84 8	8.69 3	8.5 34	8.3 32	8.14 2	7.9 30	7.7 85	7.5 29	7.3 17	7.2 03	7.13 0	6.97 4	6.99 9	7.16 0	7.26 9	7.38 4	7.55 5	7.82 8	8.16 4	8.87 4
Manipur	7.04 4	6.81 3	6.6 66	6.5 22	6.45 5	6.3 16	5.8 98	5.4 28	5.2 61	5.0 36	4.88 2	4.73 2	4.52 8	4.33 3	4.47 7	4.33 9	4.31 1	4.73 2	5.41 7	6.33 9
Meghalaya	16.4 27	15.9 70	15. 526	15. 095	14.6 75	14. 347	13. 948	13. 560	13. 246	12. 868	12.7 07	12.6 11	12.4 45	12.2 16	12.5 40	12.6 57	12.7 58	13.2 91	13.9 47	15.1 36
Mizoram	17.2 33	16.6 88	16. 160	15. 649	15.1 54	14. 675	14. 211	13. 936	13. 416	13. 078	12.9 11	12.5 86	13.0 36	13.4 56	13.7 01	13.9 25	13.8 51	14.9 88	16.0 60	18.0 94
Nagaland	8.28 1	7.85 7	7.4 54	6.9 73	6.61 5	6.1 88	5.9 54	5.6 49	5.6 31	5.6 13	5.75 2	5.73 4	6.10 7	6.32 1	6.61 2	6.97 9	7.34 3	8.32 0	9.52 2	10.7 93
Tripura	10.2 06	9.87 3	9.6 55	9.4 94	9.23 4	9.0 31	8.8 32	8.6 84	8.4 44	8.3 46	8.20 5	8.06 5	8.09 6	8.32 8	8.78 7	9.02 5	9.51 8	10.2 10	11.0 87	12.7 49
EASTERN REGION	9.55 8	9.39 0	9.2 02	9.0 60	8.91 0	8.7 48	8.5 67	8.4 03	8.2 01	8.0 58	7.98 3	7.86 2	7.86 7	8.02 1	8.14 6	8.36 1	8.61 2	9.08 6	9.48 8	10.2 83
Bihar	9.21 9	9.02 9	8.8 34	8.6 76	8.50 4	8.3 12	8.1 27	7.9 39	7.7 35	7.5 68	7.44 2	7.27 4	7.20 5	7.25 7	7.35 8	7.62 0	7.80 1	8.23 3	8.64 5	9.47 9
REGION/ STATE/ UNION TERRITORY	Years																			
	199 4- 95	199 5- 96	199 6- 97	199 7- 98	199 8- 99	199 9- 00	200 0- 01	200 1- 02	200 2- 03	200 3- 04	200 4- 05	200 5- 06	200 6- 07	200 7- 08	200 8- 09	200 9-10	201 0- 11	201 1- 12	201 2- 13	2013
Orissa	10.1 82	10.0 22	9.8 10	9.7 35	9.67 2	9.5 23	9.3 47	9.2 20	9.0 39	8.9 01	8.86 4	8.80 0	8.99 4	9.38 4	9.72 7	10.0 39	10.3 71	11.1 46	11.7 19	12.9 06
Sikkim	15.5 43	14.9 79	14. 436	13. 912	13.4 07	14. 151	13. 934	13. 714	13. 393	13. 353	14.6 37	14.5 55	15.4 83	17.6 00	17.1 88	17.4 96	18.9 34	20.0 69	21.5 82	24.3 03
West Bengal	9.60 7	9.46 4	9.2 99	9.1 52	8.99 2	8.8 57	8.6 81	8.5 33	8.3 27	8.2 10	8.17 3	8.08 6	8.08 8	8.25 5	8.32 2	8.44 1	8.73 6	9.12 4	9.43 0	9.98 9

Andaman & Nicobar Islands	15.261	15.239	14.726	14.230	13.751	13.288	12.841	12.408	12.235	12.454	12.664	12.865	13.805	13.612	13.422	13.235	14.814	15.998	18.175	19.950
CENTRAL REGION	10.182	9.998	9.825	9.664	9.533	9.321	9.149	8.993	8.745	8.566	8.450	8.292	8.299	8.577	8.821	9.138	9.369	10.004	10.540	11.460
Madhya Pradesh	10.535	10.294	10.121	9.899	9.736	9.543	9.363	9.143	8.870	8.654	8.58	8.292	8.275	8.483	8.756	9.015	9.206	9.762	10.245	11.070
Uttar Pradesh	10.010	9.855	9.681	9.550	9.434	9.214	9.045	8.920	8.684	8.523	8.417	8.293	8.310	8.624	8.852	9.198	9.450	10.122	10.684	11.652
WESTERN REGION	11.684	11.507	11.408	11.285	11.195	11.0973	10.9813	10.9546	10.9292	10.9138	10.9092	9.962	10.049	10.390	10.719	11.208	11.660	12.448	13.142	14.105
Goa	31.519	31.807	31.963	33.065	33.378	33.256	33.530	33.286	33.084	32.979	33.541	33.707	34.890	37.331	38.252	39.864	41.789	45.770	49.477	54.204
Gujarat	12.594	12.244	12.084	11.882	11.740	11.548	11.394	11.2030	11.0754	10.9583	10.853	10.705	10.628	10.789	11.111	11.589	12.140	12.976	13.907	15.065
Maharashtra	10.890	10.797	10.730	10.631	10.563	10.327	10.159	9.947	9.707	9.563	9.556	9.433	9.489	9.793	10.121	10.604	10.987	11.710	12.243	13.059
SOUTHERN REGION	12.540	12.476	12.385	12.285	12.241	12.141	12.015	11.853	11.717	11.6608	11.663	11.591	11.817	12.404	12.863	13.427	13.934	14.999	16.009	17.212
Andhra Pradesh	10.926	10.824	10.726	10.631	10.571	10.520	10.397	10.287	10.186	10.075	10.111	10.034	10.183	10.823	11.300	11.927	12.432	13.436	14.400	15.391
Karnataka	14.789	14.662	14.499	14.348	14.268	14.099	13.893	13.648	13.426	13.274	13.296	13.157	13.327	13.769	14.138	14.569	14.806	15.851	16.932	18.313
Kerala	14.660	14.647	14.607	14.584	14.585	14.518	14.501	14.529	14.604	14.730	14.970	15.090	15.554	16.215	16.736	17.474	18.515	19.600	21.086	22.561
Tamil Nadu	11.519	11.516	11.459	11.355	11.325	11.197	11.074	10.825	10.619	10.443	10.459	10.364	10.613	11.226	11.709	12.226	12.710	13.874	14.680	15.871
Pondicherry	12.409	12.429	12.280	12.1976	12.186	12.0721	12.0406	11.817	11.618	11.5155	11.612	11.532	12.179	13.252	14.715	16.196	17.255	18.029	19.156	20.403
ALL-INDIA	11.316	11.170	11.028	10.896	10.786	10.602	10.433	10.251	10.045	9.899	9.861	9.747	9.851	10.218	10.512	10.920	11.302	12.085	12.800	13.845

Note: Demographic Availability is the number of branches of Scheduled Commercial Banks (SCBs) per 1,00,000 adults.
Source: Based on data provided in Basic Statistical Returns of Scheduled Commercial Banks (various issues) and Census of India Reports (1991, 2001 and 2011).

Table 2(b): Descriptive Statistics of Demographic Availability of Bank (SCBs) Branches.

Descriptive	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Mean	13.527	13.351	13.185	13.041	12.908	12.726	12.505	12.261	12.071	11.942	11.8021	11.666	12.252	12.808	13.189	13.676	14.216	15.238	16.271	17.712
Min	7.044	6.813	6.666	6.522	6.455	6.188	5.898	5.428	5.261	5.036	4.882	4.732	4.528	4.333	4.477	4.339	4.311	4.732	5.417	6.339
Max	31.519	31.807	32.9526	33.065	33.3445	33.3359	33.530	33.286	33.084	33.196	34.265	35.131	36.792	39.886	41.483	43.127	43.649	46.031	49.477	54.204
Median	12.409	12.197	11.905	11.621	11.343	11.197	11.074	10.825	10.619	10.443	10.453	10.305	10.428	10.823	11.300	11.927	12.432	13.291	13.947	15.136
Standard Deviation	5.405	5.505	5.642	5.823	5.927	5.937	5.934	5.881	5.952	6.047	6.261	6.412	6.755	7.375	7.630	7.992	8.270	8.877	9.388	10.007

Coefficient of Variation (%)	40.0	41.2	42.8	44.7	45.9	46.7	47.5	48.0	49.3	50.6	52.1	53.6	55.1	57.6	57.9	58.4	58.2	58.3	57.7	56.5
All-India demographic availability of banking services	11.170	11.028	11.896	10.786	10.602	10.433	10.251	10.045	9.899	9.861	9.747	9.851	10.218	10.512	10.920	11.302	12.085	12.800	12.845	
Total Number of Observations	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Number of States/UTS/Regions with demographic availability greater than mean value	13	13	13	13	13	13	13	13	13	13	13	13	12	13	13	12	12	12	12	13
Number of States/UTS/Regions with demographic availability less than mean value	22	22	22	22	22	22	22	22	22	22	22	22	23	22	22	23	23	23	23	22
Number of States/UTS/Regions with demographic availability greater than all-India availability of banking services	21	21	21	21	21	20	20	21	21	20	20	20	20	20	20	20	20	20	20	20
Number of States/UTS/Regions with demographic availability less than all-India availability of banking services	14	14	14	14	14	15	15	14	14	15	15	15	15	15	15	15	15	15	15	15
Skewness	2.117	2.206	2.320	2.423	2.488	2.492	2.513	2.481	2.526	2.556	2.553	2.579	2.564	2.586	2.594	2.557	2.458	2.462	2.419	2.404
Kurtosis	5.121	5.601	6.180	6.684	7.025	7.103	7.241	7.133	7.306	7.434	7.415	7.536	7.463	7.579	7.637	7.447	6.912	6.929	6.754	6.759
Jarque Bera	55.930	64.135	75.054	85.434	92.720	94.133	97.051	94.344	98.541	101.634	101.207	104.058	102.328	105.041	106.299	101.861	90.040	90.421	86.402	86.031
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Source: Author's own calculations based on Table 1 (a).

Table 3: Growth Rates of Demographic Availability of Bank Branches

REGION/STATE/UNION TERRITORY	Average Annual Growth Rate 1994-95 to 1998-99	Average Annual Growth Rate 1999-00 to 2003-04	Average Annual Growth Rate 2004-05 to 2008-09	Average Annual Growth Rate 2009-10 to 2013-14	CAGR
NORTHERN REGION	-1.157	-1.059	2.791	7.096	1.106*(2.945)
Haryana	-0.995	-0.555	4.666	9.839	2.224*(4.631)
Himachal Pradesh	-1.833	-1.579	2.723	5.967	0.602***(1.78)
Jammu & Kashmir	-2.027	-1.358	0.493	8.365	0.200(0.445)
Punjab	-0.177	-0.596	3.187	9.114	1.715*(4.376)
Rajasthan	-1.714	-2.026	1.177	5.642	0.000(-0.224)
Chandigarh	1.595	0.563	4.726	3.566	2.429*(10.513)
Delhi	-1.382	0.113	4.660	4.465	1.918*(5.416)
NORTH-EASTERN REGION	-2.403	-2.236	0.810	5.932	-0.399(-1.233)
Arunachal Pradesh	-2.388	-3.041	0.188	9.174	-0.598(-1.407)
Assam	-2.167	-2.100	0.716	4.728	-0.499(-1.664)
Manipur	-2.156	-5.000	-2.286	10.153	-2.078*(-4.258)
Meghalaya	-2.671	-2.397	-0.064	4.609	-0.995*(-3.346)
Mizoram	-3.163	-2.526	1.547	6.874	-0.399(0.912)
Nagaland	-5.660	-1.412	3.968	11.581	1.005(1.36)
Tripura	-2.416	-1.899	1.954	9.078	0.401(0.947)
EASTERN REGION	-1.755	-1.812	0.940	5.327	-0.100(-0.389)
Bihar	-2.050	-2.186	0.492	5.642	-0.499(-1.506)
Orissa	-1.327	-1.422	2.536	6.511	0.803**(2.24)
Sikkim	-1.793	0.773	3.788	8.591	2.327*(5.511)
West Bengal	-1.613	-1.591	0.653	4.304	-0.200(-0.649)
Andaman & Nicobar Islands	-2.723	-0.932	0.942	10.825	0.803(1.689)
CENTRAL REGION	-1.750	-1.942	1.600	5.849	0.100(0.225)
Madhya Pradesh	-1.959	-2.246	1.167	5.290	-0.300(-0.829)
Uttar Pradesh	-1.643	-1.791	1.812	6.116	0.200(0.719)
WESTERN REGION	-1.248	-1.656	2.140	5.923	0.501(1.468)
Goa	1.087	0.175	3.537	8.002	2.327*(7.424)
Gujarat	-1.717	-1.969	2.105	6.785	0.401(1.104)
Maharashtra	-1.055	-1.537	2.126	5.353	0.501(1.522)
SOUTHERN REGION	-0.644	-0.799	2.878	6.417	1.207*(3.732)
Andhra Pradesh	-0.756	-0.788	3.393	6.592	1.410*(3.935)
Karnataka	-0.952	-1.164	1.859	5.916	0.602*** (2.063)
Kerala	-0.195	0.617	3.150	6.598	2.020*(6.947)
Tamil Nadu	-0.565	-1.351	3.198	6.760	1.207*(3.193)
Pondicherry	0.522	-1.760	6.967	5.946	2.429*(5.043)
ALL-INDIA	-1.295	-1.437	2.080	6.127	0.602(1.703)

Source: Based on data provided in Table 2(a).

Notes: CAGR is the Compounded Annual Growth Rate; All figures are in percentage form; Figures in parenthesis indicate t-values; *, **, *** indicate significance at 99 per cent, 95 per cent and 90 per cent confidence levels, respectively.

- *Geographic Availability*

Tables 4(a) and (b) reflect a surge in geographic branch penetration of the country from 19.402 branches per 1000 square kilometers in 1994-95, to 36.772 in 2013-14. However, the geographic penetration score of the country indicates that people have to travel considerable distance to avail banking services. The mean geographic penetration score more than doubled from 85.621 in 1994-95, to 215.576 in 2013-14. While the maximum value for geographic penetration soared from 1315.789 in 1994-95, to 1938.596 in 2003-04, and 3578.947 in 2013-14; the minimum value could only increase scantily from 0.824 in 1994-95 to 1.528 in 2013-14. This, therefore, testifies presence and increase in the inter-region/state discrepancies. Owing to increase in the gap between the best and worst geographically included regions and states (and UTs), the indicator of the inter-region/state variability (CV), rose from an already high 300 per cent in 1994-95 to 321.11 per cent in 2013-14.

Region-wise analyses reveal that the geographic branch availability in the Southern, Eastern and Western regions is high, and also greater than (or equal to) the geographic availability of bank branches in India as a whole. North Eastern region, owing to a deficient bank network, exhibited not only the least, but also inadequate geographic branch penetration. In addition to the inter-region variability, existence of intra-region discrepancy was found to be acute in the Northern region. In the Northern region, the geographic penetration of

Chandigarh (348.947 in 2013-14) and Delhi, (2194.875 in 2013-14) was found to be in sharp contrast to that of Jammu and Kashmir (6.907 in 2013-14) and Rajasthan (17.260 in 2013-14). Reflecting the poorest level of geographic bank access, bank availability in Arunachal Pradesh was found to be less than one (per 1000 kilometer square) for most of the years.

Table 5 reflects a growth rate (CAGR) of 2.942 per cent in geographical branch availability for the country as a whole. The Northern (3.769 per cent) and Southern (3.149 per cent) regions exhibited CAGRs greater than the growth rate (CAGR) in geographic availability for India as a whole. Not only was the geographic availability poorest in the North East, similar was the position of its growth rate (CAGR 1.918 per cent). The states and UTs of Pondicherry (5.338 per cent), Sikkim (5.232 per cent), Delhi (5.232 per cent), Chandigarh (5.232 per cent), Haryana (5.127 per cent), Punjab (3.977 per cent), Goa (3.769 per cent), Andhra Pradesh (3.355 per cent), Tamil Nadu (3.045 per cent) and Kerala (3.045 per cent) exhibited CAGRs, greater than the all-India value (CAGR). Experiencing growth from 3.941 bank branches per 1000 km square in 1994-95, to 6.002 in 2013-14; the state of Manipur exhibited the poorest CAGR of 0.803 per cent. Period-wise analysis revealed that the regions/UTs/states experienced higher average annual growth during 2004-05 to 2008-09, and 2009-10 to 2013-14. The average annual growth rates during all earlier years were found to be very low.

Table 4 (a): Extent of Geographic Availability of Bank (SCBs) Branches in India.

REGION/ STATE/ UNION TERRITORY	Years																			
	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
NORTHERN REGION	13.745	13.990	14.235	14.520	14.794	14.904	15.060	15.291	15.458	15.696	16.144	16.502	17.309	18.602	19.641	21.062	22.582	24.996	27.475	30.713
Haryana	30.874	31.304	31.960	33.045	33.814	34.108	34.583	35.443	36.325	37.094	38.270	39.899	42.251	46.187	49.579	55.143	60.843	68.352	77.174	89.614
Himachal Pradesh	13.813	13.831	13.867	14.028	14.100	14.136	14.136	14.208	14.280	14.280	14.495	14.729	15.465	16.256	17.190	18.267	19.345	20.908	22.704	24.895
Jammu & Kashmir	3.627	3.631	3.645	3.672	3.712	3.721	3.730	3.802	3.807	3.852	3.937	3.928	4.023	4.266	4.428	4.558	4.684	5.391	6.138	6.907
Punjab	45.372	46.722	47.953	49.164	50.097	50.594	51.050	51.924	52.778	53.473	54.883	56.074	58.814	62.845	66.002	71.383	77.340	86.295	96.382	110.143
Rajasthan	9.406	9.569	9.660	9.727	9.824	9.832	9.873	9.911	9.940	9.999	10.171	10.262	10.668	11.334	11.784	12.395	13.169	14.423	15.659	17.260
Chandigarh	1315.789	1394.737	1500.000	1578.947	1666.667	1728.070	1763.158	1789.474	1859.649	1938.596	2043.860	2140.351	2289.474	2535.088	2692.982	2859.649	2956.140	3184.211	3359.649	3578.947
Delhi	844.235	858.395	883.345	915.711	955.496	973.702	1006.069	1037.761	1047.876	1089.683	1154.417	1202.967	1282.535	1414.026	1532.030	1656.102	1772.758	1939.312	2053.270	2194.875
NORTH EASTERN REGION	7.578	7.590	7.609	7.601	7.598	7.578	7.586	7.519	7.488	7.519	7.613	7.641	7.852	8.174	8.550	8.891	9.322	10.020	10.855	12.267
Arunachal Pradesh	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.800	0.812	0.824	0.860	0.884	0.919	0.955	1.027	1.146	1.266	1.528
Assam	16.064	16.140	16.204	16.178	16.166	16.102	16.166	15.987	15.898	16.013	16.217	16.229	16.663	17.441	18.116	18.830	19.710	20.895	22.298	24.797
Manipur	3.941	3.897	3.897	3.897	3.941	3.941	3.762	3.538	3.538	3.494	3.494	3.494	3.449	3.404	3.628	3.628	3.717	4.210	4.972	6.002
Meghalaya	8.025	8.025	8.025	8.025	8.025	8.070	8.070	8.070	8.114	8.114	8.248	8.427	8.560	8.650	9.140	9.497	9.853	10.567	11.414	12.751
Mizoram	3.747	3.747	3.747	3.747	3.747	3.747	3.747	3.795	3.747	3.747	3.795	3.795	4.032	4.269	4.459	4.649	4.744	5.265	5.787	6.688
Nagaland	4.343	4.343	4.343	4.283	4.283	4.222	4.283	4.283	4.283	4.283	4.403	4.403	4.705	4.886	5.127	5.429	5.730	6.514	7.479	8.505
Tripura	17.643	17.452	17.452	17.547	17.452	17.452	17.452	17.547	17.452	17.643	17.738	17.833	18.310	19.264	20.790	21.839	23.555	25.844	28.705	33.759
EASTERN REGION	26.810	26.946	27.015	27.214	27.380	27.502	27.555	27.652	27.617	27.769	28.157	28.380	29.061	30.326	31.521	33.110	34.906	37.689	40.281	44.678
Bihar	28.670	28.773	28.848	29.032	29.159	29.205	29.262	29.291	29.279	29.394	29.659	29.745	30.228	31.240	32.500	34.530	36.273	39.281	42.317	47.608
Orissa	13.994	14.046	14.020	14.187	14.373	14.431	14.444	14.527	14.521	14.579	14.803	14.983	15.613	16.608	17.552	18.471	19.453	21.316	22.851	25.657
Sikkim	5.919	5.919	5.919	5.919	5.919	6.483	6.623	6.764	6.764	6.905	7.751	7.892	8.596	10.006	10.006	10.428	11.556	12.542	13.811	15.924
West Bengal	49.475	49.835	50.072	50.388	50.624	50.985	51.097	51.357	51.221	51.616	52.517	53.103	54.286	56.630	58.342	60.483	63.976	68.291	72.134	78.094
Andaman & Nicobar Islands	3.637	3.758	3.758	3.758	3.758	3.758	3.758	3.758	3.758	3.879	4.000	4.122	4.485	4.485	4.485	4.485	5.092	5.576	6.425	7.152
CENTRAL REGION	18.002	18.085	18.180	18.294	18.460	18.466	18.542	18.645	18.617	18.726	18.968	19.115	19.643	20.848	22.015	23.419	24.658	27.035	29.248	32.657
Madhya Pradesh	10.128	10.125	10.186	10.193	10.258	10.288	10.328	10.319	10.285	10.310	10.425	10.427	10.691	11.260	11.941	12.631	13.251	14.437	15.567	17.281
Uttar Pradesh	29.863	30.074	30.220	30.495	30.814	30.783	30.913	31.184	31.167	31.402	31.836	32.200	33.127	35.291	37.190	39.669	41.839	46.011	49.855	55.817
WESTERN REGION	19.340	19.545	19.886	20.188	20.550	20.670	20.903	20.923	20.881	21.033	21.413	21.614	22.298	23.577	24.874	26.598	28.297	30.894	33.356	36.611
Goa	75.095	77.256	79.146	83.468	85.900	87.250	89.681	90.762	91.302	92.112	94.814	96.434	101.026	109.400	113.452	119.665	126.958	140.735	153.971	170.719
Gujarat	18.289	18.238	18.462	18.620	18.870	19.038	19.268	19.130	19.084	19.217	19.421	19.589	20.283	21.472	22.625	24.145	25.879	28.303	31.037	34.399
Maharashtra	19.339	19.684	20.080	20.425	20.834	20.909	21.117	21.224	21.179	21.335	21.800	22.004	22.635	23.886	25.241	27.041	28.650	31.224	33.382	36.407
SOUTHERN REGION	27.171	27.542	27.856	28.153	28.581	28.882	29.123	29.272	29.467	29.728	30.418	30.787	31.966	34.171	36.092	38.369	40.554	44.461	48.337	52.933
Andhra Pradesh	17.881	18.066	18.259	18.459	18.721	19.001	19.153	19.328	19.491	19.633	20.066	20.280	20.960	22.687	24.123	25.930	27.526	30.297	33.067	35.994
Karnataka	23.583	23.927	24.214	24.521	24.954	25.236	25.450	25.585	25.742	26.028	26.664	26.988	27.958	29.543	31.023	32.697	33.985	37.212	40.654	44.971
Kerala	80.256	81.337	82.289	83.344	84.553	85.377	86.509	87.924	89.108	90.626	92.865	94.383	98.088	103.106	107.300	112.961	120.680	128.811	139.722	150.735
Tamil Nadu	35.776	36.353	36.768	37.030	37.537	37.722	37.922	37.675	37.691	37.799	38.606	39.013	40.743	43.950	46.748	49.778	52.776	58.751	63.395	69.892
Pondicherry	154.489	158.664	160.752	160.752	169.102	179.541	179.541	175.365	177.453	175.365	187.891	192.067	208.768	233.820	267.223	302.714	331.942	356.994	390.397	427.975
ALL-INDIA	19.409	19.603	19.802	20.019	20.277	20.394	20.535	20.648	20.702	20.875	21.278	21.523	22.258	23.626	24.873	26.441	28.007	30.645	33.220	36.772

Note: Geographic Availability is the number of branches of Scheduled Commercial Banks (SCBs) per 1,000 square kilometers of area.

Source: Based on data provided in Basic Statistical Returns of Scheduled Commercial Banks (various issues); Census of India Reports (1991, 2001 and 2011).

Table 4(b): Descriptive Statistics of Geographic Availability of Bank (SCBs) Branches

Descriptive	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Mean	85.621	88.639	92.648	96.153	100.311	103.044	105.164	106.859	109.317	112.907	118.588	123.157	131.012	143.939	153.961	164.840	173.508	188.235	200.315	215.576
Min	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.800	0.812	0.824	0.860	0.884	0.919	0.955	1.027	1.146	1.266	1.528
Max	1315.789	1394.737	1500.000	1578.947	1666.667	1728.070	1763.158	1789.474	1859.649	1938.596	2043.860	2140.351	2289.474	2535.088	2692.982	2859.649	2956.140	3184.211	3359.649	3578.947
Median	18.002	18.085	18.259	18.459	18.721	19.001	19.153	19.130	19.084	19.217	19.421	19.589	20.283	21.472	22.625	24.145	25.879	28.303	31.037	34.399
Standard Deviation	256.513	268.930	286.107	300.125	316.081	326.531	334.185	340.500	351.541	366.343	386.828	404.745	432.772	478.950	511.306	545.423	568.769	615.019	649.391	692.178
Coefficient of Variation (%)	299.60	303.40	308.80	312.10	315.10	316.90	317.80	318.60	321.60	324.50	326.20	328.60	330.30	332.70	333.20	333.90	332.00	332.70	332.40	321.10
All-India geographic availability of banking services	19.409	19.603	19.802	20.019	20.277	20.394	20.535	20.648	20.702	20.875	21.278	21.523	22.258	23.626	24.873	26.441	28.007	30.645	33.220	36.772
Total Number of Observations	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Number of States/UTS/Regions with geographic availability greater than mean value	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Number of States/UTS/Regions with geographic availability less than mean value	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Number of States/UTS/Regions with geographic availability greater than all-India availability of banking services.	14	15	16	16	16	16	16	16	16	16	16	16	16	15	16	16	16	16	16	14
Number of States/UTS/Regions with geographic availability less than all-India availability of banking services.	21	20	19	19	19	19	19	19	19	19	19	19	19	20	19	19	19	19	19	21
Skewness	4.229	4.287	4.354	4.380	4.397	4.419	4.404	4.385	4.427	4.436	4.428	4.438	4.441	4.447	4.444	4.438	4.433	4.430	4.430	4.291
Kurtosis	17.970	18.602	19.315	19.582	19.766	20.022	19.837	19.608	20.072	20.141	20.059	20.150	20.195	20.158	19.912	19.595	19.020	18.789	18.708	18.632
Jarque Bera	481.192	511.189	546.285	559.848	569.209	582.304	572.866	561.295	585.099	588.792	584.555	589.338	591.664	594.950	576.884	560.618	531.821	520.545	516.483	512.724
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Source: Author's own calculation based on table 3(a).

Table 5: Growth Rates of Geographic Availability of Bank Branches.

REGION/STATE/UNION TERRITORY	Average Annual Growth Rate 1994-95 to 1998-99	Average Annual Growth Rate 1999-00 to 2003-04	Average Annual Growth Rate 2004-05 to 2008-09	Average Annual Growth Rate 2009-10 to 2013-14	CAGR
NORTHERN REGION	1.633	1.613	5.480	9.902	3.769*(10.385)
Haryana	2.016	2.331	7.607	12.926	5.127*(10.879)
Himachal Pradesh	0.465	0.505	4.747	8.055	2.737*(7.814)
Jammu & Kashmir	0.516	1.138	2.992	11.060	2.737*(7.103)
Punjab	2.205	1.642	5.417	11.472	3.977*(10.177)
Rajasthan	0.892	0.682	4.049	8.640	2.737*(7.967)
Chandigarh	5.610	3.424	6.967	5.782	5.232*(33.219)
Delhi	2.900	3.476	7.503	7.303	5.232*(18.604)
NORTH-EASTERN REGION	0.000	0.096	3.164	8.417	1.918*(5.743)
Arunachal Pradesh	0.000	-0.281	3.309	12.575	2.327*(5.093)
Assam	0.048	0.146	3.046	7.151	1.816*(5.979)
Manipur	0.003	-2.353	0.800	13.632	0.803(1.495)
Meghalaya	0.111	0.440	2.873	7.683	1.918*(6.617)
Mizoram	0.000	0.256	4.166	9.631	2.429*(6.348)
Nagaland	-0.559	0.849	4.303	11.941	2.840*(6.032)
Tripura	-0.216	0.327	4.277	11.564	2.737*(5.934)
EASTERN REGION	0.511	0.473	3.305	7.798	2.224*(7.266)
Bihar	0.370	0.310	3.108	8.393	2.020*(6.272)
REGION/STATE/UNION TERRITORY	Average Annual Growth Rate 1994-95 to 1998-99	Average Annual Growth Rate 1999-00 to 2003-04	Average Annual Growth Rate 2004-05 to 2008-09	Average Annual Growth Rate 2009-10 to 2013-14	CAGR
Orissa	0.618	0.513	4.542	8.594	2.737*(7.860)
Sikkim	1.905	3.726	6.273	11.191	5.232*(14.297)
West Bengal	0.603	0.596	2.871	6.602	2.020*(8.128)
Andaman & Nicobar Islands	0.667	1.270	2.371	12.394	2.840*(7.394)
CENTRAL REGION	0.510	0.540	4.329	8.692	2.634*(7.301)
Madhya Pradesh	0.315	0.267	3.939	8.174	2.327*(6.600)
Uttar Pradesh	0.610	0.676	4.520	8.938	2.840*(7.637)
WESTERN REGION	1.340	0.711	4.454	8.323	2.942*(8.627)
Goa	3.054	1.681	4.788	9.307	3.769*(13.227)
Gujarat	0.809	0.402	4.471	9.260	2.840*(7.491)
Maharashtra	1.575	0.841	4.428	7.727	2.840*(9.191)
SOUTHERN REGION	1.229	1.044	4.774	8.389	3.149*(9.311)
Andhra Pradesh	1.222	1.099	5.296	8.554	3.355*(9.272)
Karnataka	1.364	1.110	4.177	8.326	2.942*(9.678)
Kerala	1.245	1.696	4.004	7.481	3.045*(11.615)
Tamil Nadu	1.065	0.469	5.242	8.874	3.045*(7.900)
Pondicherry	3.077	0.966	10.097	9.046	5.338*(10.431)
ALL-INDIA	0.995	0.854	4.459	8.609	2.942*(8.528)

Notes: Based on data provided in Table 4(a); All figures are in percentage form; Figure in parenthesis indicate t-values; * indicates significance at 99 per cent confidence levels.

Conclusion

Through the article, it becomes clear that there is a distinct presence of inter-state variation in terms of both indicators of availability of banking services. In addition to the inter region variability there is acute intra region variability in terms of the

geographic availability of bank branches amongst the states of the Northern Region. While there are evidences for high availability in the Northern (typically in Chandigarh and Delhi), Western (typically in Goa) and Southern regions of the country; poor inclusion stance was reflected by the

country's North-Eastern region. Additionally, although efforts to up-scale financial inclusion have been taking place in the country, they have not been able to adequately keep-pace with the population growth.

The need of the hour, therefore is to upscale the efforts to ensure financial access and availability, typically in the BIMARU and the North Eastern sister states of the country. For this, recognizing the need to spread greater financial literacy and awareness is pivotal to the stimulation of financial demand. . Financial inclusion is inevitably a road that needs to transversed to actualize the country's objectives of development and prosperity. The task of financial inclusion, however does not end in opening bank branches and cajoling people to open a bank account, but involves actuating them to make full use of the services. This in turn will improve national development and productivity by ensuring full utilization of the economic potential by people in their productive years and then reaping its benefits when they retire.

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