Journal of Positive School Psychology
2022, Vol. 6, No. 3, 3880 – 3891 http://journalppw.com

Financial Inclusion: A Cross Examination of Dimensions and Access in the Three Districts of Assam

Dr.LijumNochi
Associate Professor
***Bhoirab Jyoti Konch,** Ph.D
Department of Economics, Rajiv Gandhi University Rono hills, Itanagar, Arunachal Pradesh, 791112,

ABSTRACT

Financial inclusion is the process of bringing into the ambit the excluded populace towards access to the diverse product and services rendered within a financial system. This paper is an attempt to decode the depth of financial inclusivity and access with regard to the rural areas of three specific north bank districts of Assam. The financial inclusion at best is and in the narrowest possible sense points towards mediocre or medium inclusion in the range of scale. This has been largely due to the lack of aggressive or high financial access, either due to moderate or partial access in addition to large section of rural households without any financial access. At times when welfare interventions, direct benefit transfer, and dispensations orientation even for maintenance of frill accounts are high and loud, such dismal statistics calls for accentuated efforts to redress this gap. Unless rejuvenated accentuated efforts are made in regard to financial inclusion, society cannot be expected to be reintegrated in the broader scheme of the paradigm.

Keywords: Financial Inclusion, Inclusion Dimensions, Financial Access, Index of Financial Inclusion.

1. Introduction

Financial inclusion is the process of bringing into the ambit the excluded populace towards access to the diverse product and services rendered within a financial system. While the framework remains the same, definitions of financial inclusion do vary, depending on the level of social, economic and financial development. Theimport of financial inclusion is widely accepted,which therefore, brings forth the pertinent query as to how inclusive the financial system is to the various sections of population. Individual indicators like number of bank accounts, bank branch and the financial services and products provided by it or by alternate institutions as postal network, credit institutions, finance companies, micro-finance institution (MFIs) and other formal and quasi-formal non-banking institutions.

Financial institutions and services, unless accessible, would not create wealth and wellbeing. Owing to such access deterrents individuals and enterprises often rely on petty personal savings or internal resources to invest in housing, health, education, and entrepreneurial activities to make use of growth opportunities (World Bank, 2008).[1]This paper is an attempt to decode the depth of financial inclusivity and access with regard to the rural areas of three specific north bank districts of Assam. Hence the objectives are a comparative cross-analysis

1. Of the dimensions
2. Comparing the inclusivity
3. Depth of financial access

2. Material and Method

The study is based on three sample districts namely; Lakhimpur, Dhemaji and Sonitpur. In the present case, it comprises of 8 blocks, 22 gram panchayat, 59 villages and 600 households with 2962 individuals. The approach to study is both qualitative as well as quantitative; based on bothprimary and secondary data. Primary data was collected using structured schedule during the first visit,

---

[1] Adopted from URL: https://www.rbi.org.in/scripts/PublicationsView.aspx?id=10494.

which was followed by second visit with semi-structured questionnaire both open and close ended. Secondary data includes Global Findex dataset for various years, reports of banks and government.

Block headquarters being reference of spatial and locational backdrop, sample villages were chosen based on multi stage samplingi.e. from moderately rural to remotest clusters. Undoubtedly, the state of Assam is largely rural in nature. Likewise, the three-sample district selected comprises mainly of rural gentryto the tune of 92.96 and 91.24 percent for the contagious districts of Dhemaji and Lakhimpur,while it is 90.96 percent in case of Sonitpur district (District Census Handbooks 2011).All of the sample districts fall within one agronomic zone, namely; North Bank of Brahmaputra.

Nonetheless, sample households were chosen based purely on random basis. Table 1 gives the summary statistics. Of the surveyed population (2962) about 2635 are bankable adults with 2194 active accounts. Leaving aside the 327 individuals below 14 years of age group.

Table 1
Summary Statistics

Panchayats	22	Active accounts	2194
Households Surveyed	600	Districts (Bank by Organization type)	71
Population Surveyed	2962	ATMs in the districts	344
Bankable Population	2635	CSPs in the districts	867

Source: Compiled from field data and secondary sources

(http://slbcne.nic.in/assam/assam_June2020.zip)

3.1 The Framework

A simple measure of financial inclusion is to index it in terms of various dimensions. For n^{th} dimensions in Euclidian space, it can be given as

$$IFI_i = 1-\frac{\sqrt{\sum_{i=1}^{n}(1-d_i)^2}}{\sqrt{n}}$$

Where IFI_irefers to the Index of Financial inclusion andthe$d_i$are the respective dimensions running from 1 to the n^{th} dimensions in Euclidian space. However, in this study we limit our case to three dimensions, namely; banking penetration (d_1), availability (d_2) and usages (d_3). The banking penetration (d_1) is defined as proportion of total number of bank accounts in the surveyed household upon total surveyed population. On the other hand, availability (d_2) is referred to as the availability of number of bank branch in the study area to per 100 rural population. Finally, usage (d_3) is the ratio of unbanked or marginally banked population to total sample population.

The above index reveals the financial inclusivity, the in depth of inclusiveness is but revealed only by the amount of access the beneficiary makes of the various financial services. As such, a Financial Access Index (FAI_i) is constructed to assess the nature of access at the household level. FAI_i is indexed as the mean value of the scores obtained by each respective dimensions, namely, savings, credit, insurance, and payment. In other words

$$FAI_i=\frac{(S+C+I+P)}{4},$$

Where 'S' is the savings score and is obtained by scoring '2' if the households own an account and have saved (even if meagre) in a bank, a score of '1' in case it is other than in banks e.g. SHG/MFIs, and a score of '0' if both are not true. The highest applicable score is '2' which may apply even when a household have both the available accounts and have saved something. The obtained score is then normalised with the highest obtainable score i.e. '2'

$$S=\frac{Score}{2}$$

and 0≤SI≤1

For 'C', the credit score those households having access to credit from formalsources for investment is given the score of '5', for those having access to credit from formalsources for purpose other than business is scored '4', those having access to credit fromsemi formal sources are scored '3', those having access to credit from friends and relative isscored '2', from money lenders is scored '1' and who have not taken any loan is scored 0. Hence,

$$C=\frac{Score}{5}$$

and 0≤C≤1

For '*I*' the insurance score, the households having life insurance coverage isgiven a score of '2', and those without life insurance but of other types of coverageis scored '1', and those without any of aforementioned are scored '0'. Likewise, ifany households have more than one insurance coverage the highest scoredaccommodated is '2'.

$I=\frac{Score}{2}$

and $0 \leq I \leq 1$

For '*P*' payment score, in order to reflectthe transaction usages, the transactions through banks; whetherphysical or virtual is given a scoreof '2', and those without any transaction during last two successive financial quarters are scored '1', and those without the usage oftransaction is given score 0. Thus,

$P=\frac{Score}{2}$,

and $0 \leq P \leq 1$

3.2 Interpretation of Indices

With regard to IFI_i, depending upon the index derived, the results can be categorized into high financial inclusiveness with the indexed value ranging from 0.5 to 1, as medium within the bandwidth of 0.3 to 0.5, as low for values ranging from 0.10 to 0.30, and for the values below 0.10 as very poor.

On the other hand, the depth of financial access measured as FAI_imay be classified into four categories as; no access for the households with FAI equal to 0, partial access for those greater than 0 but less than or equal to 0.40, greater than 0.40 and less than or equal to 0.70 as moderate and for index between 0.70 and 1 as high access.Hence, constructing the FAI_ior the financial access index at the households level, the same were categorised into various groups aforementioned in percentage.

4. Findings

The details of the dimensions, $IFI_i$and FAI are presented abstractly in Table 2 below. As can be seen, for the first dimension d_1, banking penetration, the contagious sample district of Dhemaji and Lakhimpur have almost the same nature of low banking penetration in the rural area; 0.70 and 0.72 respectively. Rural gentry of Sonitpur has relatively better edge in banking penetration amongst all sample district at 0.72 respectively. The banking penetration in rural areas of all the sample districts i.e. overall banking penetration is 0.74 which is relatively low.

With regard to d_2, the availability, Sonitpur ranks the highest with 1.47 followed by Dhemaji at 1.17 and by Lakhimpur at 1.09 with an overall dimension of 1.25. In case of d_3, usage, the dimensional values are relatively very low, of which, Lakhimpur ranks the highest at 0.17 followed by Dhemaji at 0.15 and then by Sonitpur at 0.12. The overall dimension for all sample district is also low at 0.15.

Table 2
Dimensions, IFI and FAI

Particulars	Dhemaji	Lakhimpur	Sonitpur	Overall
d_1	0.70	0.72	0.80	0.74
d_2	1.17	1.09	1.47	1.25
d_3	0.15	0.17	0.12	0.15
IFI_i	0.47	0.49	0.42	0.47
FAI_i**(Percentage Household)**				
No Access	8	11.5	6	8.5
Partial Access	33	45.5	30.5	31.67
Moderate Access	43.5	33.5	46.5	41.17
High Access	15.5	9.5	17	14

Considering IFI_iwithin the sample districts, Lakhimpur ranks the highest at 0.49, followed by Dhemaji at 0.47 and Sonitpur at 0.42. IFI_ior the financial inclusivity for all sample districts, therefore, in the most modest sense is medium, which is also reflected in the overall financial inclusivity indexed at 0.47 for the aggregated samples.

The surmised analytical implication is the fact that Sonitpur despite having relatively higher dimensional values of banking penetration and availability, compared to Dhemaji and Lakhimpur, have the lowest financial inclusiveness amongst the sample districts. This particular instance is attributable largely to low level dimensional value for usage. Contrarily, the rural populace of Dhemaji and Lakhimpur due to relatively higher usage have higher financial inclusion despite low banking penetration and availability.

For the $\boldsymbol{FAI_i}$or the Financial Access Index within the sample districts; it can be seen that, in Dhemaji 43.5 percent of rural households have moderate access; which is the highest category followed by partial access at 33 percent. It is then by high access at 15.5 percent and only 8 percent had no financial access. Almost similar trait is found in Sonitpur with moderate access of 46.5 percent followed by partial at 30.5 percent, then by high access at 17 percent and with no access at 6 percent.

Unlike Dhemaji and Sonitpur, in Lakhimpur a reverse trait is found in case of no access and high access at 11.5 and 9.5 respectively. This is also true for the partial access and moderate access at 45.5 and 33.5 percentages respectively. The overall financial access index category wise are highest for the moderate access at 41.17 percent followed by partial access at 31.67 percent, high access at 14 percent and 8.5 percentages of households being without any financial access at all.

5. Conclusion

The financial inclusion in the three sample districts at best is and in the narrowest possible sense points towards mediocre or medium inclusion in the range of scale. This has been largely due to the lack of aggressive or high financial access, with simultaneous clogging in category of moderate or partial access.Inaddition to it, there is still a large section of rural households without any financial access. Certain implications of the study are:

One, the relatively low level of banking penetration i.e. dimensional values less than unity either for overall sample or across samples is indicative of the fact that there are still bankable adults within households without access to a bank account. The same goes with the dimension usage – reflecting unbanked and marginally unbanked populace - underlines major fault in operational domain of inclusiveness. At times when welfare interventions, direct benefit transfer, and dispensations orientation even for maintenance of frill accounts are high and loud, such dismal statistics calls for accentuated efforts to redress this gap.

Second, while the dimensional value of availability may come with cost attached, some alternatives can be put through mobile banks at call, digital transactions, customer services points to address the gap. Such may not only be cost effective but come handy in tandem with rural based demand; which is often circular in nature.

Thirdly, with respect to financial access, there is the need of transitioning the cluttering households in the moderate financial access towards high access. If not the aforementioned transition, at least those in the partial access category needs to be elevated more aggressively towards moderate financial access. *Finally,* it is not in the least interest of the welfare dispensation, orientation and governance that any section of society remains excluded. At the helm of affair, these marginalised groups with no financial access immediately requires attention and redress of the issues to be included. Unless rejuvenated accentuated efforts are made in regard to financial inclusion, society cannot be expected to be reintegrated in the broader scheme of the paradigm.

Bibliography

1. Abel, S., Mutandwa, L., & Roux, P. Le. (2018). A Review of Determinants of Financial Inclusion. *International Journal of Economics and Financial Issues*, *8*(3), 1–8. https://www.econjournals.com/index.php/ijefi/article/download/5458/pdf
2. Aggarwal, R. (2014). Financial Inclusion in India : Challenges and Opportunities. *International Journal of Research*, *1*(4), 557–567.
3. Bagli, S., & Dutta, P. (2012). Radix International Journal of Economic & Business Management. *A Study of Financial*

Inclusion in India, *1*(8).

4. Bano, A., &Baijal, S. (2016). Financial inclusion in Indian Perspective. *International Journal of Advanced Research*, *4*(4), 43–51. https://doi.org/10.21474/IJAR01
5. Baruah, P. B., &Bezbaruah, M. P. (2020). Financial Access and Business Performance of Urban Unorganised Sector Enterprises : A Study of Assam in Northeast India. *The Journal of Entrepreneurship*, *29*(1), 119–147. https://doi.org/10.1177/0971355719893502
6. Bhanot, D., & et. al., (2012). Studying financial inclusion in north-east India'. *International Journal of Bank Marketing*, 30(6), 465-484, URL: https://doi.org/10.1108/02652321211262221.
7. Bhattacharjee, N. (2014). Financial Inclusion of the Identified Slum Dwellers in Assam. *Reviews of Literature*, *1*(12), 1–9. URL: http://oldrol.lbp.world/UploadArticle/107.pdf.
8. Bhavani, T. A., &Bhanumurthy, N. R. (2014). Financial Access - Measurement and Determinants : A Case Study of Unorganised Manufacturing Enterprises in India. *Indian Economic Review*, *49*(1), 85–108. https://www.jstor.org/stable/pdf/24583408. Accessed: 17-11-2020 18:42 UTC.
9. Chakma, J. B. (2014). Financial Inclusion in India : A Brief Focus on Northeast India. *International Journal of Application or Innovation in Engineering & Management*, *3*(11), 224–229. URL https://www.ijaiem.org/Volume3Issue11/IJAIEM-2014-11-25-82.pdf.
10. Chauhan, A. A. (2013). A Study on Overview of Financial Inclusion in India. *Indian Journal of Applied Research*, *3*(12), 351–353. URL: https://www.worldwidejournals.com/indian-journal-of-applied-research-(IJAR)/fileview/December_2013_1385986542_62b5c_108.pdf
11. Damodaran, A. (n.d.). Financial Inclusion : Issues and Challenges. *AKGEC INTERNATIONAL JOURNAL OF TECHNOLOGY*,*4*(2), 54–59, URL: https://www.researchgate.net/publication/309194840_Financial_Inclusion_Issues_and_Challenges.
12. Dangi, N., & Kumar, P. (2013). Current Situation of Financial Inclusion in India and Its Future Visions. *International Journal of Management and Social Sciences Research*, *2*(8), 155–166. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.403.9647&rep=rep1&type=pdf
13. Demİrgüç-kunt, &Klapper, L. (2013). Measuring Financial Inclusion : Explaining Variation in Use of Financial Services across and within Countries. *Brooking Papers on Economic Activity*, 279–321. https://www.jstor.org/stable/pdf/43831342, Accessed: 5-11-2020 08:30 UTC.
14. Dev, S. M. (2006). Financial Inclusion : Issues and Challenges. *Economic&Politicalweekly*, *41*(41), 4310–4313. https://www.jstor.org/stable/pdf/4418799.pdf, Accessed: 05-11-2020 08:27 UTC.
15. Kumar, N. (2013). Financial inclusion and its determinants: evidence from India'. *Journal of Financial Economic Policy*, 5(1), 4-19, 2013, URL: https://ideas.repec.org/a/eme/jfeppp/v5y2013i1p4-19.html, Accessed: 30-10-2018.
16. Matteis, L. De. (2015). Financial Inclusion .: Policies and Instruments for Migrants in Italy. *Savings and Development*, 39–69. https://www.jstor.org/stable/pdf/savideve.2015.39. Accessed: 05-11-2020 08:32 UTC.
17. Nandru, P., Anand, B., &Rentala, S. (2016). Exploring the factors impacting financial inclusion: Evidence from South India. *Journal of Symbiosis Centre for Management Studies Pune*, *4*(4), 1–15, URL: https://www.researchgate.net/publication/299562803_Exploring_the_factors_impacting_financial_inclusion_Evidence_from_South_India.
18. Raichoudhury, A. (2020). Major Determinants of Financial Inclusion: State-Level Evidences from India. *Vision*, *24*(2), 151–159. https://doi.org/10.1177/0972262920923882, Accessed: 10-11-2020.
19. Rajput, B. (2017). Financial Inclusion and its Determinants : An Empirical Study on the Inter-State Variations in India. *International Journal on Arts, Management and Humanities*, *6*(1), 8–18, URL:

https://www.researchtrend.net/ijamh/pdf/3%20BHAWNA%20RAJPUT.pdf.

20. Raman, A. (2012). Financial Inclusion and Growth of Indian Banking System. *ISOR Journal of Business and Management*, *1*(3), 25–29. URL: https://d1wqtxts1xzle7.cloudfront.net/32504147/D0132529., Accessed: 14-09-2017.
21. Sangwan, S. . (2014). Bank Preference for Financial Inclusion in in Rural Punjab Inclusion Rural Punjab. *Economic&Politicalweekly*, *49*(30), 27–28. URL: https://www.jstor.org/stable/pdf/24479733, Accessed:05-11-2020 08:32 UTC
22. Sarania, R., &Maity, S. (2014). Self Help Groups (SHGs) and Financial Inclusion- A Case Study in Baksa District of Assam. *International Journal of Humanities & Social Science Studies*, *1*(3), 137–146, URL: http://www.ijhsss.com/files/Rahul-Sarania_004r4me3.pdf, Accessed: 08-12-2018.
23. Sarma, M., &Pais, J. (2008). Financial Inclusion and Development : A Cross Country Analysis. *Conference on Equality, Inclusion and Human Development, by HDCA and IHD, New Delhi*, 1–30, URL: https://icrier.org/pdf/Mandira%20Sarma-Paper.pdf. Accessed: 15-04-2019.
24. Shahulhameedu, M. (2014). Financial Inclusion - Issues in Measurement and Analysis. *International Journal of Current Research and Academic Review*, *2*(2), 116–124, URL: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.428.6058&rep=rep1&type=pdf, Accessed: 29-04-2019
25. Shankar, S. (2013). Financial Inclusion in India: Do Microfinance Institutions Address Access Barriers? *ACRNJournal of Entrepreneurship Perspectives*, vol.2, Issue 1, pp. 60-74, 2013, URL: http://www.acrn.eu/resources/Journals/201302d.pdf. Accessed:24-11-2018
26. Sharma, A., &Kukreja, S. (2013). An Analytical Study : Relevance of Financial Inclusion For Developing Nations. *Research Inventy: International Journal Of Engineering And Science*, *2*(6), 15–20, URL: http://www.researchinventy.com/papers/v2i6/D033015020.pdf. Accessed:25-11-2018
27. Singh, A. B., & Tandon, P. (n.d.). Financial Inclusion In India : An Analysis. *International Journal of Marketing, Financial ServiCes s & Management Research*, *1*(6), 41–54.
28. Soumaré, I., & et. al. (2016). Analysis of the determinants of financial inclusion in Central and West Africa. *Journal of Transnational Corporations Review*, 8(4), 231-249, 2016, URL: https://doi.org/10.1080/19186444.2016.1265763. Accessed:10-08-2019.
29. Sukumaran, K. (2015). Financial Access : Inclusion and Literacy. *Journal of Symbiosis Centre for Management Studies*, *3*(1), 188–207, URL: https://www.scmspune.ac.in/chapter/Chapter%2013.pdf. Accessed: 12-02-2017.
30. Thangasamy, E. (2014). Financial inclusion in north east India : an analytical study. *International Journal of Commerce, Business and Management*, *3*(1), 180–188.
31. Yazeed A. M., & et. al. (2013). Analysis of Household Heads Decision-To-Save with Financial Institutions in Ghana'.*Asian Economic and Financial Review*, 3(11),1466-1478, 2013, URL: https://www.researchgate.net/publication/258355993_ANALYSIS_OF_HOUSEHOLD_HEADS'_DECISION-TO-SAVE_WITH_FINANCIAL_INSTITUTIONS_IN_GHANA. Accessed: 23-10-2019
32. Zulfiqar, K., Chaudhary, M. A., & Aslam, A. (2016). Financial inclusion and its implications for inclusive growth in pakistan. *Pakistan Economic and Social Review*, *54*(2), 297–325, URL: https://www.jstor.org/stable/pdf/26616711, Accessed: 05-11-2020 08:31 UTC