"FINANCIAL INCLUSION IN TINSUKIA DISTRICT OF ASSAM: A SUPPLY SIDE ANALYSIS"

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Abstract:

Unavailability of sufficient formal financial sources has been the major reasons of financial exclusion. In this study an attempt is made to study the availability of banking services, accessibility and usage of banking services in Tinsukia district in comparison to the other districts of Assam as on 31st March, 2017. By analysing supply side data, an indexing is done to know the level of financial inclusion. The study shows that Tinsukia district is still in the category of low financial inclusion. The usage of banking services in the district is much lower than certain other districts of Assam.

Keywords: ***Accessibility, Financial Inclusion, Formal Financial Services, Index of financial Inclusion.***

Introduction:

Financial inclusion, a concept that is generating attention from general mass, policy makers, financial regulators, stakeholders of banking and financial sector, researchers and others from a long back. Not only in India, but also in the others parts of the world financial inclusion is a concern which is evident from the various reports, Financial Access survey, The Global Findex database to name a few, published by international organisation like International Monetary fund , World Bank etc.

A modern economy based on a sound financial system that smoothen the economic activities such as saving, investment, production, consumption. However the concern that raise attention is the fact that a large portion of the population still remain outside the formal financial system which is popularly termed as financial exclusion , an antonym of financial inclusion. Although there are degree of differences in the concept of financial inclusion promoted by various scholars and institution from different parts of the world the core meaning of the term remain same. The financial inclusion drive all over the world aims at bringing those people within the formal financial system who remain outside because of one or the other reason, inaccessible financial system, unaffordable financial products, unawareness, to name a few, so that they can realise the benefit of the system and enable themselves to be a participant in the process of capital formation and balanced and sustainable economic development.

Concept of Financial Inclusion:

The concept of financial inclusion has various dimension. There is variation in the coverage of the term financial inclusion. Based on the variation emphasis is given on different dimensions by the policy makers throughout the world or throughout India.

Dr.C.Rangarajan, (2008) "Financial Inclusion is the process of ensuring access to appropriate financial products and services needed by vulnerable groups such as weaker section and low income groups at an affordable cost in a fair and transparent manner by mainstream Institutional players", the Committee on Financial Inclusion.

Planning Commission (GOI) (2009): "Financial inclusion refers to universal access to a wide range of financial service at a reasonable cost. These includes not only the Banking products but also the other financial services such as Insurance and equity products."

Raghuram Rajan Committee on financial sector reforms defined financial inclusion as, "Expanding access to financial services, such as payment services, savings products, insurance products and pension".

Asian Development Bank (2000), defines financial inclusion as the "provision of broad range of financial services such as deposits, loans, payments services, money transfers and insurance to poor and low-income households and their micro enterprise".

The concept of financial inclusion is not new to India although the terminology used have been different at different point of time. The differences that appears because of the difference is in the perspective of the issue. To reach the unbanked and underbanked areas and people of the country a number of policy measures and schemes launched by the Government from time to time. Various Studies have been conducted by scholars, government / non-government, inter government researcher(s)/ research agencies/ organisation to understand the difficulties in financial inclusion and contribute for policy measure. The following section focus on review of some of those researches.

Review of literature:

(Srinivasan, 2007)[1] draw attention toward the policy gap in financial inclusion. He pointed out that the banks policy of giving attention to large clients for commercial interest, downsizing its employee as a cost cutting measure and in the name of automation contradict the objective of financial inclusion. He stated that rural finance system lacks its linkage with the rest of the financial sector. (Dasgupta, 2009)[2]comparing and contrasting the report on financial inclusion by the Committee on Financial Inclusion headed by C Rangarajan (CRC in short) and a part of the report A Hundred Small Step by Planning commission under the chairmanship of Raghuram G Rajan (RRC in short). CRC emphasise on providing credit for the weaker sections and low income group. RRC looks at financial inclusion more from deposit and saving angle. RRC considers financial services to the poor as a business opportunity wheras

[1] Srinivasan, N. (2007). Policy issues and role of banking system in financial inclusion. *Economic and political weekly , 42* (30).

[2] Dasgupta, R. (2009). Two Approaches to Financial Exclusion. *Economic and Political Weekly , 44* (26/27).

CRC emphasise on creating an enabling environment by provision of bank infrastructure and capacity building support. (Mohan, 2014)[3] critically place the arguments against what the Nachiket Mor Committee proposes for financial inclusion. He raises concern on the idea of creation of two new group of institution for financial inclusion.viz. payment banks and wholesale banks. He questioned on the viability of the payment banks which are meant for functioning of deposits and withdrawals by public who need no credit. Again the challenge seen in case of wholesale banks too which are meant for credit provide. It is argued that it is worth waiting for the performance of the existing structure and ongoing initiative (banking correspondent and bank microfinance institution partnership) rather than these institutions which are subjected to a differentiated licensing regime. The priority sector lending adjustment proposal is also criticised by the author. It is commented that financial inclusion drive can be accelerated by energising the existing players through regulatory relaxation and providing for private ownership. (Shetty & Deokar, 2014)state lack of co-ordination between RBI and the Government of India's initiative/recommendation on financial inclusion.

(Dev, 2006)[4] studied the issues and challenges of financial inclusion with special concern for the small and marginal farmers. He found that size of indebtedness of this segment is higher to informal sources than formal credit sources and credit from formal sources increases with the increase size of land. (Kamath, Mukherji, & Sandstrom, 2010) study evidences too support Dev's findings. (Chavan, 2007)study the extent of

[3] Mohan, T. T. (2014). Mor on Financial Inclusion A few Baby Steps, Not a Great Leap Forward. *Economic and Political Weekly , XLIX* (16).

[4] Dev, S. (2006). Financial inclusion:issues and challenges. *Economic and Political Weekly , 41* (41).

exclusion of *dalits* in rural areas from access to formal credit. (Bhatia & Chatterjee, 2010)inferred that the slums of Mumbai in spite of having physical access to the Bank branches they are not financially included. It is found that though this segment possess required documents for opening account , the availability of the banking service is limited .They concern about the barriers to open no-frill account. (Srinivasan, 2007) brought to light the unorganized sector as a major challenge or policy issue in financial inclusion. *Kumar et al*. (2007), in this study the researchers have highlighted the discrimination of credit flows among regions and among different households. The study showed that poor and less educated people are mostly excluded by the banking services. Further, the authors have noticed that the procedure for loan disbursement should be more simple so that the illiterate people can access the financial services. (Mukhopadhyay, 2016)[5]Keeping money at home, and chit funds, although risky are used as an instrument of saving in the north-eastern states. He critically analyses the inadequacy of the Index developed to measure financial inclusion in India. He stated about inadequacy of covering multi-dimensional aspect of financial inclusion in many of the indexes developed till the time. Demand side aspects is no covered in those indexes. (Mukhopadhyay, 2016) higher educational attainment level positively affect the likelihood of formal borrowing. Rapid penetration of microfinance is another reason for providing poor household access to formal finance in rural India. (Jain, Bohra, & Mathur, 2012)[6]*,* examines the role of financial inclusion with reference to reduction of

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[5] Mukhopadhyay, J. (2016). Financial inclusion in India A Demand Side Approach. *Economic and Political Weekly , LI* (49).

[6] Jain, M., Bohra, S., & Mathur, T. (2012). Financial services to excluded sectors through financial inclusion. *Arth Prabhand A Journal of Economics and Management , 1* (3)

poverty and process of financial inclusion. His study concluded that uneven distribution of the banking services in terms of population coverage is a reason for poor financial inclusion. (Leyshon, French, & Signoretta, 2008)[7]study the issue financial exclusion from geographical aspect. Studying the bank branch closure (bank rationalization policy) in Britain they found such financial infrastructure withdrawal leads to access exclusion. (Subba Rao, 2007) identified rural –urban disparity in credit offering of commercial banks. The percentage of indebtedness to non-institutional sources viz. moneylenders is more in rural households. He stated that in the post reform period the concession of interest rate on credit is also reducing.

Objectives of the study:

1. To measure the level of Baking Penetration in the State
2. To measure the level of financial inclusion in Assam

Methodology for Analysing Supply Side Issues of Financial Inclusion:

To fulfill the objectives of the study i.e; to measure the level of financial inclusion in the district from the banks stand point, secondary data has been used in this study. The data are mostly collected from RBI databank, SLBC report. An index is used to measure the level of financial inclusion in Tinsukia District in comparison to the other district of Assam.

The financial inclusion index used in this study is adapted from the financial inclusion index developed by Sarma, M (2008). IFI is computed in three stages of calculation, viz. Indicator Index (I), Dimension Index (D)and Financial Inclusion Index

[7]Leyshon, A., French, S., & Signoretta, P. (2008). Financial exclusion and the geography of Bank and building society branch closure in Britain. *Transaction of the Institute of British Geographers,New Series , 33* (4), 447-465.

(IFI).The Indicator index I_i, as computed by the formula (1), measures the district's achievement in the 'i' th dimension of financial inclusion. A weight w_i such that $0 \leq w_i, \leq 1$ is attached to the dimension i, So in this study a weight of '1' is attached to each indicator and dimension which indicates the relative importance of the indicator 'i' in each dimension and dimension'i' in the IFI.

$$I_i = w_i \frac{(A_i - m_i)}{(M_i - m_i)} \qquad \text{---------------------(1)}$$

w_i = weight attached to the Indicator i, $0 \leq w_i, \leq 1$

A_i = actual value of Indicator i

m_i = lower limit on the value of Indicator i,

M_i = upper limit on the value of Indicator i,

Formula (1) ensures that $0 \leq I_i \leq w_i$. The higher the value of I_i , the higher the districts's achievement in Indicator'i'. If n Indicators of financial inclusion are considered, then, achievements in each dimension are represented by a point $d_i = (I_1, I_2, I_3 \ldots. I_n)$ on the n-dimensional space.

For calculating the value of each dimension of IFI from the indicators, Euclidean Distance Method and Inverse Euclidean Distance method is used. The same procedure is also used in calculating IFI index from each dimension. For calculating IFI, a simple average of the Euclidian distance between X and O and the inverse Euclidian distance between X and W is used. Thus, to compute IFI, first X_1 (distance between X and O) is computed and X_2(inverse distance between X and W) is computed and then a simple average of X_1 and X_2 is taken to compute IFI, the final index. The exact formulae are given below:

$$X_1 = \frac{\sqrt{{d_1}^2+{d_2}^2+\cdots+{d_n}^2}}{\sqrt{({w_1}^2+{w_2}^2+\cdots+{w_n}^2)}} \quad \ldots\ldots\ldots\ldots\ldots(2)$$

$$X_2 = 1 - \frac{\sqrt{(w_1-d_1)^2+(w_2-d_2)^2+\cdots+(w_n-d_n)^2}}{\sqrt{({w_1}^2+{w_2}^2+\cdots+{w_n}^2)}} \ldots\ldots\ldots\ldots(3)$$

$$IFI = \frac{1}{2}[X_1 + X_2] \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(4)$$

The formula (2) for X1 gives the normalized Euclidean distance of X from the worst point O, normalized by the distance between the worst point O and the ideal point W. The normalization is done to make the value of X_1 lie between 0 and 1. Higher value of X_1, implies more financial inclusion. The formula (3) for X_2 gives the inverse normalized Euclidean distance of X from the ideal point W. In this, the numerator of the second component is the Euclidean distance of X from the ideal point W, normalizing it by the denominator and subtracting by 1 gives the inverse normalized distance. The IFI formula (4) is a simple average of X_1 and X_2, thus incorporating distances from both the worst point and the ideal point.

Dimensions, variables and indicators taken in this study for measuring financial inclusion:

The indicators taken for measuring financial inclusion in this study are as follows:

Table 1: Dimensions considered to measure level of financial inclusion from Supply side:

	Dimensions		Indicators/variables
1	Banking service Availability dimension	(i)	Number of bank branches per 100000 population
		(ii)	Number of bank branches per 1000 square Kilometre
		(iii)	Number of ATM per 100000 population
2	Banking penetration / accessibility dimension	(i)	Number of Deposit account per 1000 adult population
		(ii)	Number of credit account per 1000 adult population
3		(i)	Per capita deposit in Rupees

	Banking service Usage dimension	(ii)	Per Capita credit in Rupees
		(iii)	Credit Deposit Ratio

Source: Sarma M, (2012)

Identification of the district based on the value of Index of Financial Inclusion (IFI):

On the basis of IFI value, the level of financial inclusion of a district is identified. Sarma (2008) used 3 categories depending on their IFI values- those having IFI value between 0.6-1 were categorized as high financial inclusion, those having IFI value between 0.3 to 0.6 was considered as medium financial inclusion and those having IFI values between 0 to 0.3 were considered as low financial inclusion. In this study, the same categories of inclusion level are used.

Analysis and Discussion: Level of Financial inclusion at district level: To understand the level of financial inclusion of the Tinsukia district a inter-district comparison is done by finding out the IFI value (Index of Financial Inclusion) for each district. The result is presented in the table below.

Table 6: IFI value of different districts of Assam

District	Availability Index		Penetration Index		Usage Index		IFI Value	Rank
	Index	Rank	Index	Rank	Index	Rank		
Baksa	0.025	26	0.022	27	0.214	15	0.104	25
Barpeta	0.078	15	0.232	15	0.306	7	0.213	13
Bongaigaon	0.142	7	0.232	16	0.206	16	0.195	16
Cachar	0.119	9	0.330	10	0.146	22	0.206	14
Chirang	0.029	25	0.235	14	0.108	24	0.135	20
Darrang	0.082	14	0.232	17	0.311	6	0.216	12
Dhemaji	0.041	22	0.153	21	0.254	11	0.159	18
Dhubri	0.040	23	0.121	23	0.223	14	0.137	19
Dibrugarh	0.239	2	0.497	4	0.202	17	0.320	4
Dima Hasao	0.125	8	0.076	26	0.032	27	0.082	26
Goalpara	0.054	20	0.126	22	0.152	21	0.114	22

Golaghat	0.116	10	0.448	5	0.294	8	0.295	5
Hailakandi	0.064	19	0.158	20	0.110	23	0.114	23
Jorhat	0.200	3	0.592	2	0.266	9	0.361	2
Kamrup (Metro)	1.000	1	1.000	1	0.684	1	0.862	1
Kamrup (Rural)	0.109	11	0.568	3	0.355	4	0.355	3
Karbi-Anglong	0.073	16	0.116	24	0.173	19	0.124	21
Karimganj	0.071	17	0.178	18	0.073	25	0.112	24
Kokrajhar	0.038	24	0.105	25	0.035	26	0.063	27
Lakhimpur	0.093	13	0.375	7	0.382	3	0.292	6
Morigaon	0.053	21	0.369	8	0.389	2	0.283	7
Nagaon	0.066	18	0.275	13	0.228	13	0.197	15
Nalbari	0.154	5	0.362	9	0.246	12	0.258	9
Sivasagar	0.146	6	0.443	6	0.202	18	0.273	8
Sonitpur	0.107	12	0.308	11	0.257	10	0.230	10
Tinsukia	0.174	4	0.308	12	0.168	20	0.220	11
Udalguri	0.021	27	0.171	19	0.331	5	0.190	17

Source: Researcher's own computation from the supply side data

The aggregate IFI score of Tinsukia district falls in the low financial inclusion category . Among the three dimension taken in calculating the IFI score, Tinsukia district is one of the high performer district in availability dimension although Tinsukia district fall in the category of low financial inclusion ; in the other two dimension too the district fall in low financial inclusion category.

Findings of the study:

1. The average population per bank office in Tinsukia District is 11,223 which is only 3530 in Kamrup (M). The Highest average population is in Dhubri district (32209) out of 27 districts of Assam. Again, in geographical area wise the average area per bank office in Tinsukia district is 29 sq km. Kamrup (M) has the lowest average area of 2 sq. km per bank office and Dima Hasao has the highest average area of 213 sq. km per bank office.
2. The availability dimension shows that bank branches per 100,000 population in Tinsukia District is 8.9 and rank wise the district is in 5th position. But the index value

of 0.230 indicates that there is low financial inclusion in the district. The best position is hold by Kamrup (M) with 28.3 bank branches per 100,000 population.

3. Another indicator no. of ATM per 100,000 population indicates that Tinsukia district has low financial inclusion index of 0.202. Baksa has the lowest no of ATM per 100,000 population as on 31st March, 2017.
4. The district wise penetration index shows that Tinsukia district is in 12th rank with an index of 0.308. This indicates the district falls under middle financial inclusion group from this dimension. However, deposit account wise the status of Tinsukia district is not so good.
5. The third dimension of IFI which is calculated by considering 3 indicators, i.e; per capita deposit, per capita credit and credit-deposit ratio, shows that the index in the usage dimension is only 0.168. Even in rank wise the district is in 20th position out of 27 districts.
6. The aggregate IFI value shows that Tinsukia district is in the category of low financial inclusion district. The aggregate IFI value of the district is 0.220 and the rank of the district is 11th. The best position is hold by Kamrup (M).

Conclusion: Inadequacies in access to formal financial system has been a major cause of financial exclusion. Unavailability of sufficient formal financial system can't fulfil the objective of financial inclusion. The number of bank branches and ATM per 100000 population in Tinsukia district is comparatively much lower than Kamrup (M). At the same time usage of financial services are also to be ensured. The study shows that credit account per 1000 adult in all the districts of Assam is much lower than the deposit account. In Tinsukia district, the savings account per 1000 adult population is 1210 but credit account is only 105. The credit deposit ratio in the district is also very low. For achieving financial inclusion, the scope of formal financial system should be widened. It will enable to bring the poor people with lower income group into the formal financial system.

References

Ahuja, H. (2012). *Economic environment of Business Macroeconomic Analysis* (6th ed.). New Delhi 110055: S.Chand & Company Ltd.

Bhatia, N., & Chatterjee, A. (2010, October). Financial inclusion in the slums of Mumbai. *Economic and Political Weekly, 45*(42).

Chavan, P. (2007, August 4-10). Access to bank credit: Implications for Dalit rural household. *Economic and Political Weekly, 42*(31).

Dasgupta, R. (2009). Two Approaches to Financial Exclusion. *Economic and Political Weekly, 44*(26/27).

Department of Economic Affairs, Ministry of Finance,Government of India. (2012). *Economic Survey 2011-12.* New Delhi-110001: Oxford University Press.

Dev, S. (2006, October 14-20). Financial inclusion:issues and challenges. *Economic and Political Weekly, 41*(41).

Jain, M., Bohra, S., & Mathur, T. (2012, June). Financial services to excluded sectors through financial inclusion. *Arth Prabhand A Journal of Economics and Management, 1*(3).

Kamath, R., Mukherji, A., & Sandstrom, M. (2010, September 11-17). Accessing institutional finance: A demand side story for rural India. *Economic and political weekly, 45*(37).

Leyshon, A., French, S., & Signoretta, P. (2008, October). Financial exclusion and the geography of Bank and building society branch closure in Britain. *Transaction of the Institute of British Geographers,New Series, 33*(4), 447-465.

Misra, A. (2016). *Responsible Finance India Report 2016.* New Delhi 110044: Sage Publication India Pvt. Ltd.

Mohan, T. T. (2014, April 19). Mor on Financial Inclusion A few Baby Steps, Not a Great Leap Forward. *Economic and Political Weekly, XLIX*(16).

Mor, N. (2013). Reserve Bank of India.

Mor, N. (2013). *Committee on Comprehensive Financial Services for Small Businesses and Low Income Households.* RBI.

Mukhopadhyay, J. (2016, December 3). Financial inclusion in India A Demand Side Approach. *Economic and Political Weekly, LI*(49).

Nino-Zarazua, M. M., & Copestake, J. (2008). Financial inclusion, vulnerability and mental models: from physical access to effective use of financial services in a low-income area of Mexico city. *Saving and Development, 32*(4).

Rajan, R. (2016). The Changing Paradigm for Financial Inclusion. *Equity, Access, and Inclusion - Transforming Rural India through Financial Inclusion.* Hyderabad.

Rangarajn, C. (2008). *Committe on Financial Inlcusion.* RBI.

Sarma, M. (2008). *Index of Financial Inlcusion.* Retrieved from Indian Council of Research on International Economic Relation.

Shetty, S. L., & Deokar, B. K. (2014, August 30). Financial Inclusion Differences Between the Government and RBI. *Economic and Political weekly, XLIX*(35).

Srinivasan, N. (2007, July-August). Policy issues and role of banking system in financial inclusion. *Economic and political weekly, 42*(30).

Sriram, M. (2017). *Inclusive Finance India Report 2017.* New Delhi 110044: Sage Publication India Pvt. Ltd.

Sriram, M. S. (2016). *Inclusive Finance India Report 2016.* New Delhi 110044: Sage Publication India Pvt. Ltd.

Subba Rao, K. (2007, February). Financial Inclusion:An Introspection. *Economic and Political Weekly, 42*(5).