Financial Inclusion Index: An Indian experience

Dr. Meda Srinivasa Rao
Professor, KL Business School,
Koneru Lakshmaiah Education Foundation,
Vaddeswaram,
Andhra Pradesh-522502

Dr. Venkateswararao.Podile
Professor, KL Business School
Koneru Lakshmaiah Education Foundation
Vaddeswaram,
Andhra Pradesh-522502

Dr.Durgaprasad Navvula
Asst. Professor, KL Business School
Koneru Lakshmaiah Education Foundation
Vaddeswaram,
Andhra Pradesh-522502

Abstract:

The initiatives by NDA government under pradhan Mantri Jan Dhan Yojana, an ambitious programme on financial inclusion launched by the Honorable Prime minister on 28.08.2014, as per the report by the department of financial services under the ministry of Finance as on 12th sept.2020, 40.52 Crore beneficiaries banked so far₹129,929.28 Crore Balance in beneficiary accounts1.26 lakh Bank Mitras delivering branchless banking services in Sub-Service Areas RuPay debit cards have been issued to these account holders. The worth of Rs.644776.62 crore have been mobilized by the holders of these accounts. Financial inclusion is a key enabler of economic and social development of India, where large sections of population still lives outside the ambit of formal financial services, the need to focus on inclusion is of paramount importance. With this back drop the present study have specific objectives which includes, to understand the review of literature about financial inclusion and different initiates by government of India and to know different financial inclusive measurement initiatives in India and to understand mechanism which followed by CRISIL to measure Financial Inclusion Index and draw the suitable findings from the Crisil Inclusix and interpret the results

Key words : Financial inclusion, CRISIL, Jandhan Yojana, RuPay debit card

Introduction:

After crosses different phases of Indian banking industry beginning from nationalization of 14 large banks in 1969 and six in 1980, It has its own potential to be the 5th largest banking industry in the world by 2020 and the 3rd largest by 2025. This sector is currently valued at Rs 81 trillion (US$ 1.31 trillion) and is going to face tremendous changes caused by to allow new private banks. At a glance banking industry consists of 21 public sector banks, 21 private sector banks, 46 foreign banks, 56 regional rural banks, 1,574 urban cooperative banks and 93,913 rural cooperative banks, in addition there are 10 small finance banks and 5 payment banks which obtained licenses and functioning in India. Public-sector banks control more than 70 per cent of the banking system assets, thereby leaving a comparatively smaller share for its private peers. In the past, RBI's stated objective behind giving licenses to new banks was to introduce competition in the sector, largely dominated by government-owned banks.

This time, the prime focus is to promote so-called financial inclusion, or increasing the reach of financial services to the unbanked population. Financial Inclusion is the process of ensuring access to appropriate financial products and services needed by all sections of the society in general and vulnerable groups such as weaker sections and low income groups in particular at an affordable cost in a fair and transparent manner by mainstream institutional players. The States like Bihar, Orissa, Rajasthan Uttar Pradesh, Chhattisgarh, Jharkhand, West Bengal and North-Eastern States are under banked. When compared to the developed world, the coverage of our financial services is quite low. Then the Reserve Bank of India has set up a commission (Khan Commission) in 2004 to look into financial inclusion and the recommendations of the commission were incorporated into the mid-term review of the policy (2005–06). In the report RBI exhorted the banks with a view of achieving greater financial inclusion to make available a basic "no frills" banking account. In India, Financial Inclusion first featured in 2005, when it was introduced, that, too, from a pilot project in UT of Pondicherry, by K C Chakra arty, the chairman of Indian Bank. Mangalam Village became the first village in India where all households were provided banking facilities. In addition to this KYC (Know your Customer) norms were relaxed for people intending to open accounts with annual deposits of less than 50,000 rupees. General Credit Cards (GCC) were issued to the poor and the disadvantaged with a view to help them access easy credit. The initiatives by NDA government under pradhan Mantri Jan Dhan Yojana, an ambitious programme on financial inclusion launched by the Honorable Prime minister on 28.08.2014, as per the report by the department of financial services under the ministry of Finance as on 12th sept.2020, 40.52 Crore beneficiaries banked so far₹129,929.28 Crore Balance in beneficiary accounts1.26 lakh Bank Mitras delivering branchless banking services in Sub-Service Areas. RuPay debit cards have been issued to these account holders. The worth of Rs.644776.62 crore have been mobilized by the holders of these accounts. Financial inclusion is a key enabler of economic and social development of India, where large sections of population still lives outside the ambit of formal financial services, the need to focus on inclusion is of paramount importance. With this back drop the present study have the following objectives

Objectives of the study:

To understand the review of literature about financial inclusion and different initiates by government of India

To know different financial inclusive measurement initiatives in India

To know the mechanism which followed by CRISIL to measure Financial Inclusion Index

To draw the suitable findings from the Crisil Inclusix and interpret the results

Research Methodology:

The study is explanatory and analytical in nature. It is based on secondary data as it is collected from various sources like NSSO 59th Round Survey Results[3], Government of India Population Census 2011, CRISIL Financial Inclusion Index (Inclusix), RBI Working Paper by Sadhan Kumar[8] (2011), World Bank 'Financial Access Survey' Results

Model Applied in the study:

CRISIL Inclusix, an index to measure India's progress on financial inclusion, crisil developed Inclusix with the support from Ministry of finance , Government of India and RBI

Parameters used to measure Inclusix by CRISIL :

1. No. of Branches per lakh of population
2. No.of Loan Accounts per lakh of population
3. No. of Small borrowers loan Accounts as defined by RBI per lakh of Population
5. No. of savings deposit Accounts per lakh of Population

Explanation about parameters used in the CRISIL model:

Dimension	**Parameter**	**Significance**	**Interpretation**
1. Branch penetration	No.of branches both SCBs and RRBs Per lakh of population	Measures the ease with which people in a particular territory can access banking services	The higher the better
	No.of Loan Accounts Per lakh of population	Measures the extent of access to loan products offered by banks in a particular territory	The higher the better
2. Credit Penetration	No.of Small Borrower! loan accounts as defined by RBI Per lakh of	Measures access to credit for small borrowers, who typically face	The higher the better

	population	financial non-inclusion	
	No.of Agriculture advances per lakh of population	Measures farmers' access to credit	The higher the better
3. Deposit Penetration	No.of saving deposit accounts per lakh of population	Measures the extent of access to savings products offered by banks in a particular territory	The higher the better

! small borrowers with a sanctioned credit limit up to Rs.2 lakh

Methodology for measuring Financial Inclusion Index by CRISIL:
Step1: Normalization of parameters: As noted above, Crisil inclusix is a composite index that measures financial inclusion as an aggregate of 5 parameters. However, these parameters have different untis, and cannot, hencebe aggregated directly to arrive at a composite index. So every parameter is first normalized using

Xi (Normalized)= Xi – X(min)/ X (max)-S(min)

Where Xi = Value for the particular parameter for district 'I'

X(min) = minimum value for a particular parameter observed across all districts

X(max) = maximum value for a particular parameter observed across all districts

Normalization converts data for every parameter into numbers between 0 and 1

With 'o 'depicting the worst performer, and '1' the best performer in the parameter

The normalized values of each of the five parameters may be referred as the parameter indices, there are free of units and dimensions, and are easily aggregated. This approach similar to one used by UNDP for computation of well known development indices such as Human Development Index (HDI)

Step2: Aggregation using displaced ideal method:

The aggregation entails the aggregation of three dimension indices (BP, average of all the CP parameter indices and DP)

The three dimension indices, BP,CP and DP , may be represented in three dimensional space with '0' as the minimum value and '1' as the maximum (ideal) value for each three dimensions.

The score in between 0 and 100

Application of Crisil inclusix

For ease of users , Crisil inclusix Scores have been divided into following four categories that indicate different levels of the financial inclusion.

CRISIL inclusive Score	Level of Financial Inclusive
Greater than 55	High
Between 40.1 and 55	Above Average
Between 25 and 40	Below Average
Less than 25	Low

Review of Literature

According to Indian institute of banking and finance, "financial inclusion is delivery of banking services at an affordable cost ('no frills' accounts,) to the vast sections of disadvantaged and low-income group. Unrestrained access to public goods and services is the sine qua non of an open and efficient society. As banking services are in the nature of public good, it is essential that availability of banking and payment services to the entire population without discrimination is the prime objective of the public policy."

According to Dr. K.C. Chakrabarty, Deputy Governor, Reserve Bank of India, financial Inclusion is the process of ensuring access to appropriate financial products and services needed by all sections of the society in general and vulnerable groups such as weaker sections and low income groups in particular at an affordable cost in a fair and transparent manner by mainstream institutional players.

According toV.Leeladhar, Reserve bank of India bulletin, Jan 2006, financial inclusion is delivery of banking services at an affordable cost to the vast sections of advantaged and low income groups. Unrestrained access to public goods and services is the sine qua non of an open and efficient society. As banking services are in the nature of public good, it is essential that availability of banking and payment services to the entire population without discrimination is the prime objective of the public policy.

financial inclusion, “The process of ensuring access to appropriate financial products and services needed by vulnerable groups such as weaker sections and low income groups at an affordable cost in a fair and transparent manner by mainstream Institutional players.”

According to M.K.Samantaray, General Manager, Reserve Bank of India Guwahati, Large segment of population remaining excluded from formal payments system & financial markets when financial market developing & globalizing – Obvious market failure – Government & financial sector regulators creating enabling conditions for inclusive & affordable market.

From the article Impact of SHGs on Financial Inclusion – A Case Study in the District of Bankura. The author Dr.Mnaiklal Adhikay, Supravat Bagli used the methodology of multiple regression model for estimating the financial exclusion and a binary logic model for estimating the access to formal credit. This paper discussed about the Socio-economic traits as determinants of the financial exclusion and inclusion. In order to accelerate the financial inclusion through curbing the hegemony of village moneylenders we suggest for implementing the SHGBank/Co-operative Linkage more intensively in rural areas under study.

From the article, Role of financial Institutions in financial Inclusion. The author Mr. Joseph Massey did a Periodical study. He discussed about Financial institutions have a very crucial and a wider role to play in fostering financial inclusion. Lack of financial literacy is the major hindrance in spreading financial inclusion. This has resulted in the more than 50 per cent of savings of the household sector and of the financially illiterate getting drained in non-financial investments.

From the article Financial Inclusion:The Way Forward by Mr. N K Maini, Deputy Managing Director, SIDBI. He discussed about the Responsible Finance Initiative - cross-linked to the financing - could help improve management, governance, operational practices and disclosure. SIDBI has been playing an active role in impressing upon its partner MFIs to adopt and practice good corporate governance of managing the MF operations, besides sensitizing them on other issues. Promoting responsible finance and adherence to a laid down.

Extent of Financial Exclusion in India

NSSO 59th Round Survey Results[3]

- 51.4% of farmer households are financially excluded from both formal/ informal sources.
- Of the total farmer households, only 27% access formal sources of credit; one third of this group also borrowed from non-formal sources.
- Overall, 73% of farmer households have no access to formal sources of credit.
- Across regions, financial exclusion is more acute in Central, Eastern and North-Eastern regions. All three regions together accounted for 64% of all financially excluded farmer households in the country. Overall indebtedness to formal sources of finance of these three regions accounted for only 19.66%.

Government of India Population Census 2011

- As per census 2011, only 58.7% of households are availing banking services in the country. However, as compared with previous census 2001, availing of banking services increased significantly largely on account of increase in banking services in rural areas

CRISIL Financial Inclusion Index (Inclusix)

- In June 2013, CRISIL first time published a comprehensive financial inclusion index (viz.,Inclusix). For constructing the index, CRISIL identified three critical parameters of basic banking services namely branch penetration[5], deposit penetration[6] and credit penetration[7].

- The CRISIL Inclusix indicate that there is an overall improvement in the financial inclusion in India (Chart 3).
- CRISIL –Inclusix (on a scale of 100) increased from 35.4 in March 2009 to 37.6 in March 2010 and to 40.1 in March 2011

RBI Working Paper Study

- Sadhan Kumar[8] (2011) worked out an Index on financial inclusion (IFI) based on three variables namely penetration (number of adults having bank account), availability of banking services (number of bank branches per 1000 population) and usage (measured as outstanding credit and deposit). The results indicate that Kerala, Maharashtra and Karnataka has achieved high financial inclusion (IFI >0.5), while Tamil Nadu, Punjab, A.P, H.P, Sikkim, and Haryana identified as a group of medium financial inclusion (0.3

District-wise Scorers across the country:

S.NO	District	State	Score
1	Pathanamthilla	Kerala	96.2
2	Karaikal	Puducherry	91.6
3	Thiruvunanthapuram	Kerala	91.1
4	Kodagee	Karnataka	84.5
5	Coimbatore	Tamilnadu	83.4
6	Chennai	Tamilnadu	82.0
7	Benagaluru Urban	Karnataka	81.6
8	Mumbai	Maharashtra	81.3
9	Hyderabad	Telangana	80.1
10	Krishna	Andhra Pradesh	73.6
11	Nellore	Andhra Pradesh	66.6
12	Guntur	Andhra Pradesh	66.3
13	Visakhapatnam	Andhra Pradesh	62.4
14	Rangareddy	Telangana	60.3
15	Warangal	Telangana	59.3
16	Karimnagar	Telangana	53.9

Financial inclusive Index in the state of Andhra Pradesh

Rank	District	Score
1	Krishna	73.6
2	Nellore	66.6
3	Guntur	66.3
4	Kadapa	66.0
5	West Godavari	65.1
6	Chittoor	63.5
7	Prakasam	63.4
8	East Godavari	63.2
9	Vishakapatnam	62.4
10	Anantapur	59.3
11	Vizianagaram	55.4
12	Kurnool	53.6
13	Srikakulam	53.3

Top district scorers in the state:

The key findings of the index have been captured in a report which presents financial inclusion metrics in 632 districts of the country over a three-year timeframe (2009-2011). Some of them are:

- The all-India CRISIL Inclusix score of 40.1 (on a scale of 100) is relatively low. It is a reflection of under-penetration of formal banking facilities in most parts of the country. The bottom 50 scoring districts have just 2 per cent of the country's bank branches.
- Deposit penetration (DP) is the key driver of financial inclusion in India. The number of savings bank accounts, at 624 million, is close to four times the number of loan accounts at 160 million.
- Focused efforts to enhance branch presence and availability of credit are extremely critical. The bottom 50 scoring districts in India have only 2,861 loan accounts per lakh of population, which is nearly one-third of the all India average of 8,012.

- There are clear signs of improvement in the CRISIL Inclusix score over the past three years. The CRISIL Inclusix score at an all-India level has improved to 40.1 in 2011, from 37.6 in 2010 and 35.4 in 2009. Improvement in deposit penetration score is the key driver of this improvement.
- Wide disparities exist across India and within states in terms of access to financial services. India's six largest cities have 11 per cent of the country's bank branches. At the other end of the scale, there are four districts in the North-Eastern region with only one bank branch each.
- The key driver for the continued high performance of the top 50 districts is the significant increase in deposit and branch penetration (BP). The DP score for these districts increased by a significant 9.3 in 2011, over 2009. Also, these districts saw an addition of 2,824 branches in this period, nearly one-fourth of the total branches added in the country.
- Even in the districts at the bottom of the list, there is an encouraging improvement in branch efficiency. For the bottom 50 districts, the number of savings deposit accounts per branch has improved by 20 per cent to 6,073 as on March 2011 from 4,919 as on March 2009.

Conclusion: The big positive to have come out of the CRISIL inclusix data is that the level of financial inclusion has consistently been on the rise since 2009, the driving reason being the improvement in Deposit Penetration (DP). The authorities need to focus on the other two parameters (branch penetration and credit penetration) to ensure a balanced and all round improvement in CRISIL inclusix score. Furthermore, the outperformance of the southern region may offer some pointers to follow for the other regions. These show that one cannot look at financial inclusion in isolation from other indicators such as literary, HDI etc.

References:

[1]Dr.Mnaiklal Adhikay, Supravat Bagli, Journal of Management and Information Technology, Vol.2, No.1 (2010).

[2] Role of Financial Institutions in Financial Inclusion, Mr. Joseph Massey, MD & CEO, MCX Stock Exchange, FICCI's Banking & Finance Journal, Issue: 4, October-2010.

[3] Taking Banking Services to the Common Man - Financial Inclusion. V. LEELADHAR.

[4] CGAP Technology Programme (2009), Notes on Branchless Banking, Policy and Regulation in Mexico".

[5] Chakrabarthy K.C (2009), "Financial Inclusion, RBI Initiatives" at National seminar on launching a National initiative for financial inclusion, DFS GoI.

[6]. Balaji C., Rao P.V.D., Rekha Y.C., Basheerunisa S. (2019), 'Technological relationship between banknifty and other selected sectorial indices of NSE', International Journal of Recent Technology and Engineering, 8(3), PP.2314-2318.

[7]. Balaji C., Venkateswara Kumar K.S., Lalitha Devi G., Pravallika S., Harika K. (2019), 'Impact of acquisitions on financial performance of selected softwarecompanies in India', International Journal of Innovative Technology and Exploring Engineering, 8(9), PP.2415-2419.

[8].Pradeep Kumar Patnaik R., Balaji C., Narayana M.S. (2019), 'Technological relationship between capital structure and financial efficiency in ACC Ltd', International Journal of Innovative Technology and Exploring Engineering, 8(11), PP.2009-2013

[9]. Sekhara Rao, K.S. Sahyaja, C (2018), 'Financial Performance - A Study on Indian Banks', 'International Journal of Engineering & Technology', vol.7(1), PP 177-181

[10]. Sekhara Rao, K.S., Madhav, V.V., Udaya Shankar, A), 'Financing Methods and Risks - Impact of Risk on the Selection of Financing Methods in Power Projects: A Study of Indian Power Sector', 'International Journal of Innovative Technology and Exploring Engineering', vol.8(9), PP 242-245

[11] Sailaja, V.N., Madhavi,N.B.,(2016) 'Relationship between retirement wealth and householders' personal financial and investment behavior',' Man in India' vol.96(5), PP 1521-1529

[12]. M. Raju., Dr. P. Venkateshwara Rao (2020), 'Financial Analysis of selected IT companies in India', 'Test Engineering & Management' vol.83, PP 13356-13364

[13]. Shaik G., Babu P.R. (2019), 'Impact of financial inclusion strategies for sustainable development of economy (With reference to Andhra Pradesh)', International Journal of Innovative Technology and Exploring Engineering, 8(8), PP.380-385

[14]. Ch Murthy Chodisetty R.S., Raja Babu P.(2018), 'A study on foreign direct investments (FDI) inflows impact on select sectoral investment growth in India', Journal of Advanced Research in Dynamical and Control Systems ,10(8 Special Issue), PP. 254-259

[15]. Reddy, Asi Vasudeva; Anjali, Gummadi (2017), 'Intention to Quit and Determinants of Employee Engagement: an Empirical investigation among the Banking Professionals of Guntur Region (India)', organizatsionnaya psikologiya, Vol. 7 (4). PP. 73-85

[16]. K.HemaDivya, K.Reddy,, S.Kota (2018),' A study on effectiveness of Indian banking ombudsman, International journal of mechanical engineering and Technology, volume 9 , issue 5, PP 267 to 274