

The Aid of Banking Sectors in Supporting Financial Inclusion - An Implementation Perspective from Tamil Nadu State, India

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Abstract

This paper surveys and analyzes the issues pertaining to implementation of financial inclusion in economically down trodden districts of Tamil Nadu, India. Data collected from districts were collected and analyzed using SPSS tools (SPSS 2011). The outcome of analysis was verified against standard FI metrics such as Human Performance Index which suggests that the phenomenon of Financial Inclusion undertaken by RBI regulations had still not penetrated into lives of BPL (NABARD 2009). It had been suggested that though over the past six years the FI strategy had improved the life style of BPL, but missing focus on savings and credit improvement strategies degrades the benefits of FI. The paper suggests on design of new strategies for improving FI as well popularize among BPL vulnerable groups.

Keywords: Financial Inclusion, RBI schemes, FI metrics, Savings

1. Introduction

Effective access to financial services for the poor and vulnerable group is a prerequisite for poverty reduction and social cohesion. This issue can be focused as "achilles heel" to become an integral part of our major efforts to promote inclusive growth for the country. In fact, providing access to finance services is a form of empowerment among the vulnerable groups. Financial inclusion (CGA 2009) defines delivery of financial services at an affordable cost to the vast sections of the disadvantaged and low-income groups. The various financial services include credit, savings, insurance and payments and remittance facilities. This research paper analyzes the state of FI in economically downtrodden districts of Tamil Nadu, India and identifies the role of RBI's FI schemes implementation and growth strategy over the past five years.

As Tamil Nadu, being an integral state of India had been consistently witnessing frequent changes in inflation and due to variable measure of econometrics which had one of the reasons for financial inclusion not implemented effectively as today. India has been experiencing frequent shortages of manpower and financial crisis from its post liberalization era which throws light on the fact that the major causes of inflation are primarily due to people living below the poverty line. As per macroeconomic facts Beck, (Thorsten, and Augusto de la Torre. 2006) (Kneiding, Christoph, *et al.* 2009) (Collins, Daryl, *et al.* 2009), India has more than over 200 million households with more than 140 million households in rural and semi-urban areas, of which Tamil Nadu alone contributes more than 35% of households living in rural, semi-urban and semi-rural regions. These households remain excluded from the purview of the economic developments as they do not have easy access to the banking and financial transactions and its related facilities.

Even though government of India had taken hard steps to implement FI through RBI and IRDA, not much result are found. The Insurance Regulatory and Development Authority's (IRDA's 2011) Annual Report indicates life insurance penetration at 4.6 per cent and general insurance penetration at 0.6 per cent. Majority of the people do not have bank accounts, and even though RBI mandates have ensured the opening of 50 million no-frills accounts, only 11 per cent are active. While the channel design contributes to low take-up and account dormancy, design of products also plays a significant role.

While financial inclusion initiative primarily aims to deliver financial services to all the people in a fair, transparent and equitable manner at an affordable cost, including providing latest technologies available in these areas as one of the prerequisites for overall development of Tamil Nadu.

This paper hence aims at an empirical study on identifying the determinants of financial inclusion (hereafter mentioned as FI throughout this paper) in India based on an interview process of interacting with different financially low income people whose salary range is less than 4000 per month. Interview Questionnaire consisting of 30 (sixty) questions pertaining to FI metrics based on Financial and Rural Banking are considered for analysis. Saving schemes which attribute to the growth of vulnerable groups and FI development are considered for this study, which are analyzed based on FI metrics calculated from observed values.

1.1 Need for FI in India

The need for incorporating financial inclusion in India hopes to bring social inclusion which is much felt in order to improve the econometrics of India. The Government of India's Committee (NABARD 2011) on Financial Inclusion (released by NABARD) in India reports on financial inclusion as the "process of ensuring to be critical" to solving this challenge.

Financial products / services are identified as basic banking services like deposits accounts, institutional loans, access to payment, remittance facilities for life and non life insurance services. The following list is the denotation / connotation of financial inclusion in India. Financial services have failed to adequately reach poorer populations for a number of reasons, which includes inadequate infrastructure, perceptions that lending to the poor is too risky to be commercially viable, inhibiting regulatory/ legal environments and limited understanding of governmental situation and awareness of financial services by the poor.

1. Affordable credit
2. Savings bank account
3. Payments & Remittance
4. Financial advice
5. Credit/debit cards
6. Insurance facility
7. Empowering SHGs (self help groups)

Financial inclusive system facilitates efficient allocation of productive resources as well potentially reduce the cost of capital incurred. An all-inclusive financial system (Stephen Sinclair, *et al.* 2011) enhances efficiency and welfare by providing avenues for secure and safe saving practices and by facilitating a whole range of efficient financial services like easy day-to-day management of finances, safe money transfer etc. The govt. of India as well as the banking industry has recognized this imperative and has undergone certain fundamental changes over the last two decades.

There has been much technological advances that has transformed the banking industry from traditional brick and mortar infrastructure like staffed branches to a system supplemented by other channels like automated teller machines, debit and credit-cards, internet banking, online money transfer etc. The moot point, however, is that access to such technology and services are restricted to only certain segments of society. There is a growing divide, with an increased range of personal finance options for a segment of high and upper middle income population and a significantly large section of the population who lack access to even the most basic banking services. This is termed as "Financial exclusion".

2. Procedures adopted and Related Survey

“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.” (Dr. K.C. Chakraborty, 2009) (RBI 2011).

About 40% of Indians have check-in accounts, while every 50 out of every 100 Indians had bank accounts in 1993 (IIB 2011), which has marginally gone up to 54 in 2007 (BTI 2011), 60 in 2010 and 62 in 2011 (BOF 2011). Through consistent research survey (Kneiding, Christoph, *et al.* 2009) and financial risk analysis (Collins, Daryl, *et al.* 2009) of information on competing technologies of production, it can be found that financial intermediations can improve the flow of resources as well enhance economic growth. Robinson (1952) work suggests that finance does not influence economic growth, but it is financial development that follows economic growth since expansion of the real economy means more demand for financial services and institutions. Lucas (1988) work dismisses the role of financial development on improving economic growth of country.

The main reason was that initial finance theories like Modgillani Miller theorems and Efficient Market Hypothesis (Robert C. Merton 1952) were based on the assumption that markets are perfect and there are no frictions. But if these theories were correct then there was very little reason for financial markets to exist. However, later development showed that there were imperfections in the financial market and how various financial entities led to reduction of these imperfections.

Jake Kendall (2006) showed that in Sweden lower than two per cent of adults did not have an account in 2000 and in Germany, the figure was around three per cent. Another research by (Buckland et al (2005) showed that less than four per cent of adults in Canada and five per cent in Belgium, lacked a bank account. Therefore, it is also mentioned in academia that a better way to analyze financial inclusion in developing economies is to actually see financial exclusion.

Financial services have failed to adequately reach poorer populations for a number of reasons, which includes inadequate infrastructure; perceptions which lend to poor being too risky should be commercially viable, inhibiting regulatory / legal environments, limited understanding and awareness of financial services by the poor.

2.1 RBI initiative

Reserve Bank of India (RBI) has promulgated a drive for financial inclusion (BTI 2011), as NPPFI (National Pilot Project for FI) whereby banks promote the participation of every household at the district-level via savings accounts for the ‘unbanked.’ This study is an attempt to arrive at a deeper understanding of the processes behind financial inclusion. Namely, it proposes to uncover perceptions and dynamics behind financial inclusion, such as those within unbanked households, as well as study whether financial inclusion leads to usage and/or influences financial behaviour. The policy backdrop intends to study of the financial inclusion drive promoted by the RBI in various districts of Tamil Nadu state.

In 2006-07, the RBI announced that a drive for financial inclusion would be initiated in every state, whereby the State Level Banking Committees (SLBC) and the state lead banks (SLB 2011) would be responsible for promoting 100% financial inclusion in at least one district in their home states. The SLBC is a committee, consisting of representatives from all banks in the state, the state government, and the RBI, that meets regularly to coordinate state banking activities. The lead bank in a state is the bank with the most number of branches, and hence, outreach in the state. The lead bank is also the Convener of the SLBC.

Based on recommendation of RBI's Committee on Financial Inclusion to open No Frills account (RBI 2011), it could be noted that as of September 2008, approximately 15.8 million bank accounts have already been opened. To achieve 100% financial inclusion, however, an additional 584 million accounts will need to be opened (‘RBI asks banks to offer credit through no-frill accounts’, The Economic Times, 12 September 2008). Given these developments, it is both timely and pertinent to examine the implementation of the drive, the utility of accounts to users, and levels of usage. The strength of public domain like strong banks with the reach of the private agencies to the far flung areas.

Some of the agencies can be out of NGOs, Farmers Clubs, SHG, Co-operatives, Community Based Organizations; IT enabled rural outlets of corporate entities. The role of Bank's Farmer Training Colleges and Information Kiosks will be in addition to the BC and BF Model for Financial Inclusion currently being implemented by Indian government.

3 Strategies adopted

Measure financial inclusion involves multiple metrics and methods. One of the most important use of spatial analysis approach is that it is capable of generating much better metrics to track financial access than existing approaches. Current standard access measure in the financial inclusion world has been a crude density measure – i.e. branches per capita or ATMs per 100,000 people. Data of this sort was collected worldwide by Kendall, Mylenko, and Ponce (Kendall, J 2008) who extended the approach first used in Beck (Beck, T *et al.* 2007), Demirgüç-Kunt (Demirgüç-Kunt, A., *et al.* 2005). However, these measures do not take into account the geographic clustering of financial access points or of poor populations within national boundaries. Different metrics can be applied to analyze the Financial Inclusion implementation issues. This analysis considers few FI metrics (Inclusion 2011) such as Candidate's Per Capita income, Savings per month / year, no of accounts in use (No frill), Type of account, and type of deposits. These metrics are related with Human Performance Index (HPI) measure which suggests on the economic growth level of a country citizen.

A more precise approach to measuring access is to use proximity measures such as the percentage of poor people within 5km of a bank branch, or median distance to branch. A notable exception to the lack of proximity measures in existing data sources is the metric proposed by the Alliance for Financial Inclusion, which is the percent of the population in a city or town with at least one access point (see here, though this measure too has obvious drawbacks since metropolitan areas can be quite large).

Different steps can be taken to ensure implementation of Financial Inclusion in India as per RBI norms (RBI 2011).

[i] Opening No-frills Savings Bank accounts

[ii] Issuing General Purpose Credit Cards

[iii] Granting Overdraft facilities in Savings Bank accounts

[iv] Providing banking services at the door step of villagers through Smart Cards.

As per the data collected and statistics analyzed it had found that [i] and [ii] had been implemented while [iii] and [iv] is not in implementation.

The analysis was also carried out over few banks in Tamil Nadu such as Canara Bank, Indian Overseas Bank (Indian Overseas Bank 2011), State Bank of India (State Bank of India 2011), Indian Bank which had been implementing FI scheme over rural areas. Under financial inclusion, the government has allotted 1573 villages all over the country having 2000 population for coverage, to the bank. Of this 495 villages are located in Tamil Nadu. The banks will be providing financial services to these villages through 'Business correspondents' or designated 'Branch outlets'. Canara bank is dedicating a Canara Grameena Vikas Vahini (Canara Bank 2011) provides a vehicle for exclusive use of propagating awareness and financial literacy among rural population.

3.1 Data Collection

The key to implementing credit scoring is developing a comprehensive database of information, for both approved and rejected applications. Given the asymmetric nature of information about the poor, this database of information should encompass capturing all that is known about the potential/actual customer (or can be known without over-burdening the application process). The data should include both qualitative and quantitative data. Once a significant historical base has been developed, the qualitative data can be analyzed to generate a statistically significant probability model of a customer's willingness to repay. Measures must be incorporated in the loan origination process to ensure the quality and completeness of the data is maintained.

The capture of quantitative data (income, expense, cash flow, balance sheet, margin analysis) in the database for each questionnaire application may not play a vital role in statistical credit-scoring, but some time it may be useful in benchmark-evaluations and sensitivity-analysis. Such analysis leads to more of risk management than credit scoring. Risk parameters such as market, geo-political, operational, regulatory and

human factor risks are still significantly important aspects, which need to be dealt within manners similar to those that are applied in conventional financial analysis.

3.2 Findings

The state of Financial Inclusion in India over the past five years is analyzed using SPSS (SPSS 2011). Financial Inclusion metrics are discussed in Section 3.0 which are primarily considered as major parameters for analysis. Based on data analyzed using Chi-square for Bank savings and transaction made per month data, it can be identified that the Monthly Salary mean lies between 200 and 700 per person while Mean for Savings lies between -2000 to 200 per person. Table-1 shows list of proxy indicators used in banks which had implement FI. These six indicators propose methodologies adopted by FI advisors to analyze the phenomenon of FI implemented in a region (Table 1).

A negative value indicates loan obtained and non-payment while a positive value indicates savings. Figure 1 shows the Bank savings per year for rural, Urban and Semi-Urban regions over consistent years between 2005 to 2011.

It can be seen that savings in metropolitan cities seem to be on increase while savings in rural regions are less compared with other regions (Figure 2). The primary motivation on saving schemes among rural people is missing where most of rural people retaliated that nationalized banks does not show much interest in answering their queries. The appointment of BC or BF in many nationalized banks in questionable.

Figure 3 explains the number of accounts opened by BPL (People below poverty line) in different banks which support the feature of FI as instructed by RBI. Based on the number of banks in rural regions it can be identified that State Bank of India which has maximum number of rural banks all over India had taken the initiative of setting up BCs and BFs such that during two consecutive financial years it holds the highest number of "no-frill" accounts.

Figure 4 explains the saving procedures adopted by BPL groups and implemented by banks. It could be found that the saving nature increases gradually in exponential order among people belonging to vulnerable groups. People whose salary increases, the savings methods also increases, such that the interest of savings among people whose salary less than 10000 alone is found to be belonging to FI.

Figure 5 discusses on the number of No Frill Accounts opened during the Financial Year 2007, 2008 and 2009 for the public sector banks and private sector banks.

4 Summary and Performance Analysis

This paper analyzes on the issues pertaining Financial Inclusion implementation in banks operating in Tamil Nadu region in specific to vulnerable regions such as Vellore and Cuddalore. Based on data gathered using interview based questionnaire and detailed analysis it can be found that nationalized banks had been entrusted the task of implementing FI in rural and semi-rural locations. From the past five years of data gathered and analyzed, a gradual increase in opening of savings account could be identified. It could also noticed that be found that over past five years of data a marginal increase in savings by banks had been motivated. Still few challenges need to be overcome with a technological updates and schemes being listed below:

- [a] Distance and reach of possible scheme implementation to vulnerable groups
- [b] Lack of last mile Communication between FI advisors, implementers and vulnerable groups

[c] Arriving at a suitable FI delivery model

[d] Choice of ideal and standardized technology solution across nationalized and other financial sector co-operative banks.

[e] Handholding through Networks by establishing strong links with NGOs, Government and other extension agencies, community based organizations etc.

[f] Development of new products and services to meet the emerging needs of customers brought in through financial inclusion.

5 Future work

FI needs to focus on improved access for future research:

[i] Access to debt management, debt counseling and debt solutions.

[ii] Financial management which includes access to managed bank accounts.

[iii] Improved and informed access to credit.

[iv] Improved access to savings and insurance products.

With the objective of developing an adaptive FI model, to accelerate the process of financial inclusion, the RBI and multi-national banks need to recommend on various operational aspects:

1. Make recommendations on how operational efficiency can be improved upon and costs driven down (wherein more specific learning's can be derived from various international benchmarks, which can be applied to the Indian context) be included in the framework.

2. Provide guidelines on how to better manage risks related to –

[i]. Loans to entities possessing un-collateralizable & extremely illiquid assets

[ii]. Information asymmetry about rural customers

[iii]. Possibility of a moral hazard observed in repayment behaviour

[iv]. Risk sharing mechanisms with Business Correspondents

3. Give incentives to financial sector that will encourage them to enter this market – like provide viability gap funding to cover operational risks, etc.

The further work includes questions:

[a] How can government enhance the quality of the financial investment climate, which includes the macro and micro framework of financial management which includes incentives for labour-intensive production?

[b] What financial enabling measures are critical to ensure that the benefits of investment are shared by vulnerable groups?

References

Alexei Onatski, September 26, 2006, A formal statistical test for the number of factors in the approximate factor models.

Beck, T., Demirgüç-Kunt, A. and Martinez-Peria, S, July 2007, Reaching out: Access to and use of banking services across countries, *Journal of Financial Economics*, Vol. 85 (1), pp. 234-266.

Beck, Thorsten, and Augusto de la Torre. 2006. "The Basic Analytics of Access to Financial Services" Policy Research Working Paper 4026. Washington: World Bank

Collins, Daryl, and others. 2009. *Portfolios of the Poor*, Princeton University Press

Consultative Group to Assist the Poor (CGAP). 2009. *Financial Access 2009: Measuring Access to Financial Services around the World*. Washington

Demirgüç-Kunt, A., Karacaovali, B. and Laeven, L. (2005), Deposit insurance around the world: A comprehensive database, World Bank Policy Research Working Paper No. 3628

Grameen Bank. 2007. *Annual Report 2007*. Dhaka

<http://iibf.org.in/> Indian Institute of Banking and Finance

<http://www.banktechindia.com/news/12-01-03/>

http://www.inclusion.in/index.php?option=com_content&view=article&id=179

<http://www.rbi.org.in/home.aspx>

Jake Kendall, Nataliya Mylenko, Alejandro Ponce, March 2010, Measuring Financial Access around the World, Policy Research Working Paper-5253 The World Bank, Financial and Private Sector Development,.

Kendall, J., 2008, Local Financial Development and Growth, World Bank Policy Research Working Paper No. 4838

Kneiding, Christoph, Edward Al-Hussayni, and Ignacio Mas. 2009 "Multiple Country Data Sources for Access to Finance—A Technical Note" Washington: CGAP.

Making rural finance count for the poor, September 2004, Department for International Development (DFID), Report -11

Nirupan Mehrotra, Puhahendhi,, 2009, Financial Inclusion - An Overview, NABARD, Occasional Paper Series-48

Priya Basu, June 2005, Scaling-up Microfinance for India's Rural Poor, World Bank Policy Research Working Paper 3646, National Council of Applied Economic Research, India.

Robert C. Merton, 11-Nov-1992, Continuous-Time Finance, B. Blackwell Business & Economics - 732 pages

Stephen Sinclair, Fiona McHardy, Louise Dobbie, Kate Lindsay and Morag Gillespie, Understanding financial inclusion, Friends Provident Foundation, Magenta Publication, 2009

Sundara Rajan M S, July-September 2007, Replication of Financial Inclusion: Opportunities and Challenges - Indian Bank Experience,

www.bankofindia.com/FI-BOI/FI.html

www.canarabank.com/english/scripts/FinancialInclusion.aspx

www.ibm.com/software/analytics/spss/

www.idbi.com

www.indian-bank.com/slbc

www.irda.com

www.sbionline.org/SBI_delivers_financial_inclusion_across_1_369_villages_in_AP.aspx

Young, Robin, and Robert Vogel. 2005. "State-Owned Retail Banks (SORBs) in Rural and Microfinance Markets: A Framework for Considering the Constraints and Potential." U.S. Agency for International Development.

Zimmerman, Jamie, Yves Moury, 2009. "Savings-Linked Conditional Cash Transfers: A New Policy Approach to Global Poverty Reduction." Global Assets Project Policy Brief, Washington, New America Foundation.

Table 1: Indicators of banking sector outreach

Measurement	Indicator
(i) Bank accounts per adult	Number of bank accounts per adult
(ii) Geographic branch penetration	Number of branches per 1000 km ²
(iii) Loan-income ratio	Average size of Deposits to GDP per capita
(iv)Geographic ATM penetration	Number of bank ATMs per 1000 km ²
(v) Deposit-income ratio	Number of bank ATMs per 1,00,000 people
(vi) Cash-Deposit Ratio	Cash in circulation to total bank deposits

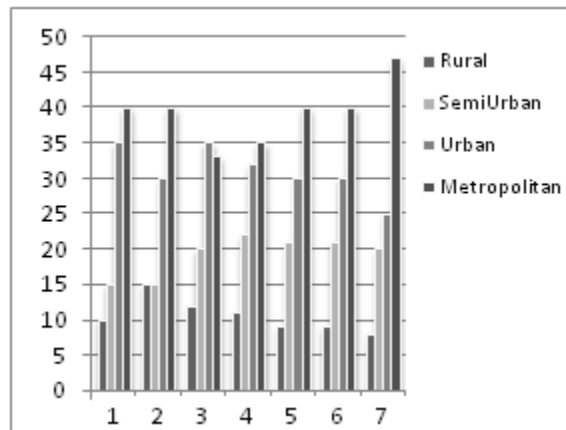


Figure1 - Bank Savings per year in Rural, Semi-Urban, Urban, Metropolitan areas

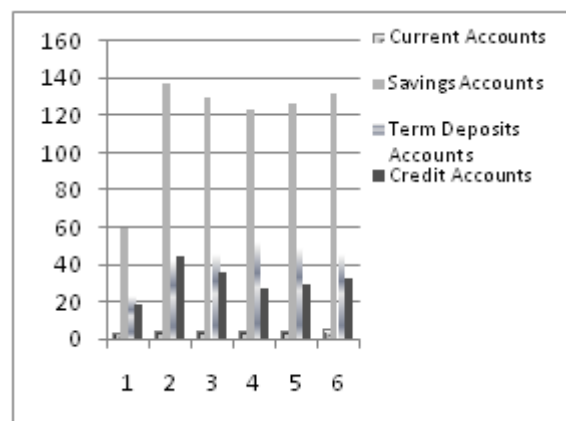


Figure 2 - Bank savings

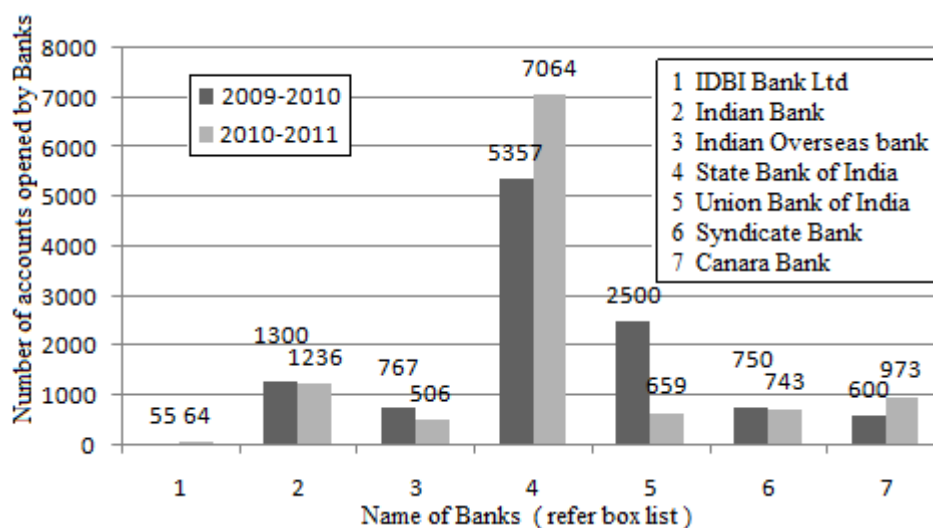


Figure 3 - No of accounts opened through nationalized banks

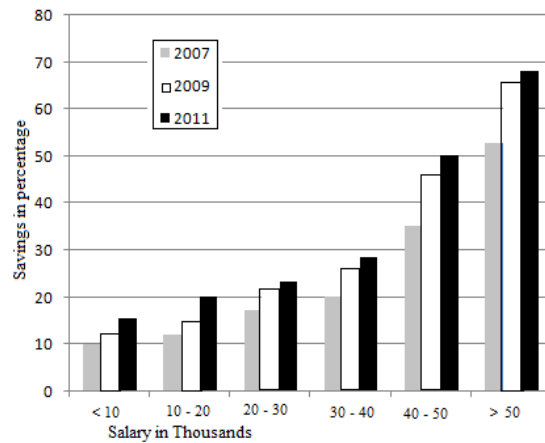


Figure 4 - Savings of people belonging to vulnerable groups (BPL)

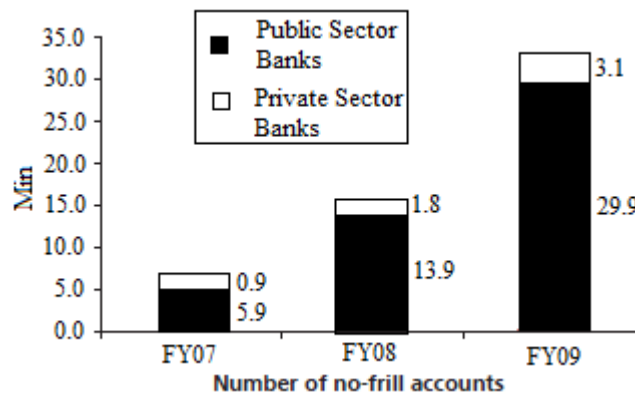


Figure 5 - Number of No Frill accounts of Vellore region

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