

**Finding usage in access to banking and scope  
for microfinance in Gulbarga District, Karnataka.**

**A study of Financial Inclusion on Below  
Poverty Line Families**

**THESIS SUBMITTED TO THE  
PADMASHREE DR. D.Y. PATIL UNIVERSITY'S  
DEPARTMENT OF BUSINESS MANAGEMENT  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE AWARD OF THE DEGREE OF  
DOCTOR OF PHILOSOPHY IN BUSINESS MANAGEMENT**

**Submitted by:  
VANI KAMATH  
(DYP-PhD- 066100017)**



**RESEARCH GUIDE:  
DR. PRADIP MANJREKAR  
PROFESSOR**

**PADMASHREE DR.D.Y.PATIL UNIVERSITY'S  
DEPARTMENT OF BUSINESS MANAGEMENT**

**SECTOR 4, PLOT NO.10**

**CBD BELAPUR, NAVI MUMBAI 400614**

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**DNYANADHEENAM JAGAT SARVAM**

**Research Guide:  
Dr. Pradip Manjrekar  
PROFESSOR**

**PADMASHREE DR.D.Y.PATIL UNIVERSITY'S  
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**Finding usage in access to banking and  
scope for microfinance in Gulbarga**

**District, Karnataka**

**A study of Financial Inclusion of Below  
Poverty Line Families**

# **DECLARATION**

I hereby declare that the dissertation titled “Finding usage in access to banking and scope for microfinance in Gulbarga District, Karnataka- A study of Financial Inclusion of Below Poverty Line Families” submitted for the Degree of Doctorate in Philosophy (Business Management) at Padmashree Dr. D.Y. Patil University’s Department of Business Management is my original work and the dissertation has not formed the basis for the award of any degree, associate ship, fellowship or any other similar titles.

**Place: Mumbai**

**Date: 4/8/2010**

**(MS. VANI KAMATH)  
Signature of the Candidate**

# **CERTIFICATE**

This is to certify that the dissertation entitled “Finding usage in access to banking and scope for microfinance in Gulbarga District: A study of Financial Inclusion on Below Poverty Line Families” is the bona fide research work carried out by Mrs. VANI KAMATH, student of Doctorate in Philosophy (Business Management), at Padmashree Dr. D.Y. Patil University’s Department of Business Management during the year 2007-2010, in partial fulfillment of the requirements for the award of the Degree of Doctorate in Philosophy (Business Management), and that the synopsis has not formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

**Prof.Dr.Pradip Manjrekar**  
**Signature of the Research guide**

**Prof.Dr. R. Gopal,**  
**Director**  
**Department of Business**  
**Mgt,**  
**Padmashree Dr.D.Y.Patil**  
**University,**

**Place: Mumbai**  
**Date:**

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I would be failing in my duty if I do not acknowledge with a deep sense of gratitude the sacrifices made by my husband Mr.Rajesh and daughter Ms.Diya for supporting me in completing the project work successfully.

**Place: Mumbai**

**Date: 4/8/2010**

**VANI KAMATH**

**Signature of the candidate**

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## **Executive Summary**

A well-developed financial system brings poor people into the mainstream of the economy and allows them to contribute more actively to their personal economic development. In India, in an attempt to improve access to financial services or financial inclusion, the Reserve Bank of India (RBI) promulgated a drive for financial inclusion, where banks take the lead in providing all 'unbanked' households in a district, with savings accounts. The Centre for Micro Finance conducted a study to assess the implementation of the financial inclusion drive and usage of banking services by households in Gulbarga district in Karnataka, one of locations claimed to have achieved 100% financial inclusion.

This research report is divided into two main parts. The first part of the report provides the context for this study through a description of the history of financial inclusion in India. The second part of the report describes the methodology and results of the study. The study finds that the number of households with bank accounts doubled over the duration of the financial inclusion drive. However, 36% of the sample remained excluded from any kind of formal or semi-formal savings accounts. Further, bank accounts have been opened typically to receive government assistance, mostly under the National Rural Employment Guarantee Programme (NREGP). Usage and awareness of the accounts remain low. Savings in Self-Help Groups remains the

most popular form of savings in a formal/semi-formal place. It was concluded that while government programmes like NREGP have the potential to include large numbers of low-income households, access to accounts does not often lead to usage. More needs to be done in the realm of financial literacy and marketing so that the bank accounts are optimally used.

## **CHAPTER- 1**

### **INTRODUCTION**

- 1.1 A well functioning financial system empowers individuals, facilitates better integration with the economy, actively contributes to development and affords protection against economic shocks. Inclusive finance - through secure savings, appropriately priced credit and insurance products, and payment services – helps vulnerable groups such as low income groups, weaker sections, etc., to increase incomes, acquire capital, manage risk and work their way out of poverty.**
- 1.2 Notwithstanding the efforts made so far, a sizeable majority of the population, particularly vulnerable groups, continue to remain excluded from the opportunities and services provided by the financial sector. With a view to correct this situation and extend the reach of the financial sector to such groups by minimising the barriers to access as encountered by them, the Government of India (GoI) on 22 June 2006 constituted a “Committee on Financial Inclusion.”**
- 1.3 Financial inclusion is the availability of banking services at an affordable cost to disadvantaged and low-income groups. In India the basic concept of financial inclusion is having a saving or current account with any bank. In reality it includes loans, insurance services and much more.**

**1.4 The first-ever Index of Financial Inclusion to find out the extent of reach of banking services among 100 countries, India has ranked 50. Only 34% of Indian individuals have access to or receive banking services. In order to increase this number the Reserve Bank of India had the Government of India take innovative steps. One of the reasons for opening new branches of Regional Rural Banks was to make sure that the banking service is accessible to the poor. With the directive from RBI, our banks are now offering “No Frill” Accounts to low income groups. These accounts either have a low minimum or nil balance with some restriction in transactions. The individual bank has the authority to decide whether the account should have zero or minimum balance. With the combined effort of financial institutions, six million new ‘No Frill’ accounts were opened in the period between March 2006-2007. Banks are now considering Financial Inclusion as a business opportunity in an overall environment that facilitates growth.**

**1.5 The main reason for financial exclusion is the lack of a regular or substantial income. In most of the cases people with low income do not qualify for a loan. The proximity of the financial service is another fact. The loss is not only the transportation cost but also the loss of daily wages for a low income individual. Most of the excluded consumers are not aware of the bank’s products, which are beneficial for them. Getting money for their financial requirements from a local money lender is easier than getting a**

loan from the bank. Most of the banks need collateral for their loans. It is very difficult for a low income individual to find collateral for a bank loan. Moreover, banks give more importance to meeting their financial targets. So they focus on larger accounts. It is not profitable for banks to provide small loans and make a profit.

1.6 Financial inclusion mainly focuses on the poor who do not have formal financial institutional support and getting them out of the clutches of local money lenders. As a first step towards this, some of our banks have now come forward with general purpose credit cards and artisan credit cards which offer collateral-free small loans. The RBI has simplified the KYC (Know your customer) norms for opening a 'No frill' account. This will help the low income individual to open a 'No Frill' account without identity proof and address proof.

1.7 In such cases banks can take the individual's introduction from an existing customer whose full KYC norm procedure has been completed. And the introducer must have a satisfactory transaction with the bank for at least 6 months. This simplified procedure is available to those who intend to keep a balance not exceeding Rs.50,000 in all accounts taken together. With this facility we can channel the untapped, considerable amount of money from the low income group to the formal economy. Banks are now permitted to utilize the service of NGOs, SHGs and other

**civil society organizations as intermediaries in providing financial and banking services through the use of business facilitator and business correspondent models.**

**1.8 Self Help Groups are playing a very important role in the process of financial inclusion. SHGs are usually groups of women who get together and pool money from their savings and lend money among them. Usually they are working with the support of an NGO. The SHG is given loans against the group members' guarantee. Peer pressure within the group helps in improving recoveries. Through SHGs nearly 40 million households are linking with the banks. Micro finance is another tool which links low income groups to the banks.**

**1.9 Yet, banks are fighting to fulfil the Financial Inclusion dream. The main reason is that the products designed by the banks are not satisfying the low income families. The provision of uncomplicated, small, affordable products will help to bring the low income families into the formal financial sector. Banks have limitations to reach directly to the low income consumers. Correspondents can be considered to be an excellent channel which banks can use to distribute their product information. Educating the consumers about the financial benefits and products of banks which are beneficial to low income groups will be a great step to tap their potential.**



- 1.10 Banks are now using new technologies like mobile phones to reach low income consumers. It is possible that the telephone providers themselves will start basic banking services like savings and payments. Indian telecom consumers have few links to financial institutions. So without much difficulty telecom providers can win the battle with banks. Banks should therefore be proactive about transferring this technology into an opportunity.**
- 1.11 The Indian Government has a long history of working to expand financial inclusion. Nationalization of the major private sector banks in 1969 was a big step. In 1975 GOI established Regional Rural Banks with the same aim. It encouraged branch expansion of bank branches especially in rural areas. The RBI guideline to banks shows that 40% of their net bank credit should be lent to the priority sector. This mainly consists of agriculture, small scale industries, retail trade etc. More than 80% of our population depends directly or indirectly on agriculture. So 18% of net bank credit should go to agriculture lending. Recent simplification of KYC norms are another milestone.**
- 1.12 Financial inclusion is a great step to alleviate poverty in India. But to achieve this, the government should provide a less perspective environment in which banks are free to pursue the innovations necessary to reach low income consumers and still make a profit.**

**Financial service providers should learn more about the consumers and new business models to reach them.**

**1.13 This research thesis attempts to explore the relationship between the usage of financial services and access to the bank in Gulbarga District, Karnataka. Financial inclusion or broad access to finance refers to the timely delivery of financial services to disadvantaged sections of society. Research in the last decade leads us to believe that a well functioning financial system is linked to faster and equitable growth (Honohan, 2004). Due, to the stimulus provided by the United Nations Year of Micro Credit 2005, policy makers across the world have begun to pay closer attention to increasing financial inclusion.**

**1.14 However, in spite of the attention on financial inclusion and the numerous policies devoted to enhancing access to finance, a significant challenge in designing effective policy interventions is the dearth of information regarding access to finance. The problem of information is compounded by the fact that access to finance does not necessarily lead to usage.**

**1.15 In the Indian instance, since 2005, the Reserve Bank of India (RBI) has promulgated a drive for financial inclusion, where banks take the lead to promote the financial inclusion of every household at the district-level by providing all 'unbanked' households with savings accounts. This study proposes to examine the process involved in a household becoming financially included, how this process is perceived by the household in question and whether**

being financially included results in usage of newly offered financial services and affects financial behaviour, with specific reference to the financial inclusion drive by RBI.

- 1.16** This study is an attempt to arrive at a deeper understanding of the process of financial inclusion, the difference between access to financial services and usage, and the significance of inclusion to poor households. With particular reference to the drive for financial inclusion which is a recent policy initiative, this study will be an opportunity to receive some quantitative and qualitative information regarding the usage of these accounts. As such, the information contained herein should be of particular importance to banks, policy makers and development practitioners alike. For policymakers, it will demonstrate the on-the-ground results of the current policies and provide evidence that will inform future policies. In the case of financial institutions, this information will facilitate the design of appropriate products that are demand-driven. In the case of microfinance institutions, the evidence herein may help them increase outreach and hence, financial viability.

**CHAPTER-2**  
**LITERATURE REVIEW**

## CHAPTER-2

### REVIEW OF RELATED LITERATURE

2.1 For the purpose of literature review, few scholarly books, articles, journals and research papers have been reviewed which are relevant to the current study on access and usage of finance and financial services by rural poor. It has been categorised under four headings on the basis of availability of literature which are as follows:

- Defining Financial Inclusion
- Measuring financial inclusion
- Why is financial inclusion important?
- Financial Deepening in India

#### **2.2 Defining Financial Inclusion**

Financial inclusion means the timely delivery of financial services to disadvantaged sections of society. This simple definition encompasses the concepts into two primary dimensions (United Nations, 2006)<sup>1</sup>. Firstly, financial inclusion refers to a customer having access to a range of formal financial services, from simple credit and savings services to the more complex such as insurance and pensions. Secondly, financial inclusion implies that customers have access to more than one financial services provider, which ensures a variety of competitive options. Flowing from this definition, financial exclusion would mean the inability of the disadvantaged to access financial services. A range of

obstacles could lead to financial exclusion; barriers include geography (limiting physical access), regulations (lack of formal identification proof or of appropriate products for poor households), psychology (fear of financial institution's staff, structures, complicated financial products, etc.), information (lack of knowledge regarding products and procedures), and low financial acumen (low income and poor financial discipline), among others.

**2.3** In the Indian context, financial inclusion, according to the Finance Minister's 2006-07 budget speech, was defined as "the process of ensuring access to timely and adequate credit and financial services by vulnerable groups at an affordable cost" (Union Budget, 2007-2008). In a similar vein, the Committee on Financial Inclusion defines financial inclusion as "...the process of ensuring access to financial services and timely, adequate credit where needed, to vulnerable groups such as weaker sections and low income groups, at an affordable cost," (Report of the Committee for Financial Inclusion, 2008). Although these two definitions mention a range of financial services, their wording reveals a bias towards credit. In fact, until recently, the discussion on financial inclusion in policy and academic circles tended to revolve around the extension of institutional credit at the expense of providing savings, in spite of evidence that poor people save (Basu, 2005; Dev, 2006; Mohan, 2006)<sup>2</sup>. If this trend continues, a myopic focus on credit could lead to detrimental, long-term

outcomes such as over-indebtedness and wasteful use of scarce resources (Committee for Financial Sector Reforms, 2008)<sup>3</sup>. Encouragingly, the RBI-led drive for financial inclusion is thus significant in that it attempts to extend savings bank accounts to 'unbanked' households. There are many metrics to measure financial inclusion including population per bank branch or using the percentage of adult population. It has been chosen to highlight this method for two reasons. Firstly, it is the most popular method in common usage. Secondly, the financial inclusion drive attempts to increase access to finance by increasing the number of adults having bank accounts.

#### **2.4 Measuring Financial Inclusion**

Closely related to financial inclusion is the idea of breadth of financial services. Breadth of financial services refers to the outreach of financial services in an economy. In other words, breadth measures how many people have access to financial services. Although financial inclusion should signify access to a range of different financial services, the percentage of people in a given area with access to a bank account is the typical measuring stick for breadth of financial services, (Beck & De la Torre, 2006)<sup>4</sup>. This approach assumes that a bank account enables poor households to perform important financial functions such as saving money safely outside the house, accessing credit, making loan or premium payments, and transferring money (Mohan,

2006)<sup>5</sup>. Thus, in this framework, a bank account should determine access to and usage of many other financial services (Littlefield et al, 2006)<sup>6</sup>.

2.5 Unfortunately, it is difficult to discern access to savings accounts in developing countries as data on small deposits and borrowings is not readily available. Table 2.5.1 demonstrates the striking disparities between access to savings accounts in developed and developing countries with the information we currently have. While in developed nations almost everyone has access to banking services, in less developed countries, access is often limited to small segments of the population.

**Table 2.5.1: Percentage of population with a bank account**

Country/Location	Percentage with an account
Botswana	47
Brazil (Urban)	43
Columbia	39
Djibouti	24.8
Lesotho	17
Mexico City	21.3
Namibia	28.4
South Africa	31.7
Swaziland	35.3



<b>Tanzania</b>	<b>6.4</b>
<b>Denmark</b>	<b>99.1</b>
<b>Sweden</b>	<b>98</b>
<b>Italy</b>	<b>70.4</b>
<b>UK</b>	<b>87.7</b>
<b>USA</b>	<b>91</b>
<b>India</b>	<b>59</b>
<b>Bihar</b>	<b>33</b>
<b>Kerala</b>	<b>89</b>
<b>Meghalaya</b>	<b>27</b>
<b>Nagaland</b>	<b>21</b>
<b>Northern Region (Delhi, Haryana and Punjab)</b>	<b>84</b>

Source: Emerging Market Economics, Ltd. (2005), p. 20, Peachey and Roe (2004), p. 13, United Nations (2006), p. 2, Fedbank Hormis Memorial Foundation Inaugural Address by V. Leeladhar, Deputy Governor, Reserve Bank of India, December 2, 2005

Note: In Botswana, Lesotho, Namibia and Swaziland, this is the percentage who says that they have a savings/transaction account from a bank. In India, this is the percentage of the adult population who have access to either savings or current account.

2.6 Further, as one might expect, levels of income inequality (as measured by (Gini coefficients) are negatively correlated with

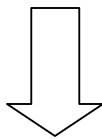
levels of financial inclusion (Kempson, 2006)<sup>7</sup>. Thus, the egalitarian Northern European countries of Denmark and Sweden— states with low levels of inequality—have extremely high levels of financial inclusion while mid-level Gini coefficient countries like the USA and the UK show inclusion levels of 91% and 88%, respectively. Finally, high levels of inequality, such as those which persist in South Africa and Tanzania, correspond to higher levels of exclusion. It is important to note that the figures above pertain merely to having access to any kind of savings account altogether; thus one considers groups that may have bank accounts, but not other financial services which may be most prevalent in a region. For instance, in Sweden, internet banking is extremely common; therefore not having access to internet banking may be a serious impediment. In France, cheques are the most common form of payment, and as such, not having access to cheques would pose transactional roadblocks. Similarly, access to a bank account need not necessarily lead to usage. For example, many countries decided to route state benefit payments through bank accounts. Kempson (2006)<sup>8</sup> points out that this can easily lead to under-usage by accountholders who may simply withdraw all the money that is deposited into the account as soon as it is deposited.

## **2.7 Why Is Financial Inclusion Important?**

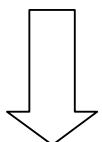
One of the most important empirical relationships revealed in the last decade has been the establishment of the causal link between financial depth and growth (Honohan, 2004)<sup>9</sup>. Figure 1 shows a schematic representation of the theoretical basis for the link between financial depth and growth. Policy-makers would do well to recognise the relationships between well developed financial systems and economic growth as well as economic growth and poverty reduction. Thus, the question becomes, does a well-developed financial system serve the poor? There are, in fact, ample theoretical justifications and empirical evidence indicating that a well developed financial system can be an effective poverty alleviation tool. For one, there are large costs to small and poor entrepreneurs for the market imperfections in a poorly developed financial system. These burdens include informational asymmetries, transaction costs, and contract enforcement costs, compounded by lack of collateral, credit histories, and contacts. For these entrepreneurs, broad access to financial services would smooth project financing, positively impacting growth and poverty alleviation (Galor & Zeira, 1993).

***Market Frictions***

- ***Information costs***
- ***Transaction costs***

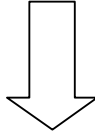


**Financial Markets and Intermediaries**



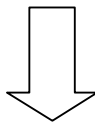
### Financial Functions

- Mobilise savings
- Allocate resources
- Exert corporate control
- Facilitate risk management
- Ease trade of goods, services, contracts



### Channels to growth

- Capital accumulation
- Technological innovation



Growth

**Figure 1: A Theoretical Approach to Finance and Growth**

Source: Figure 1 in Levine (1997)

2.8 Beck and de la Torre (2006) also refer to the Schumpeterian process of ‘creative destruction’ whereby a well-developed financial system is able to allocate resources to efficient newcomers. Empirical studies also show that small firms in countries with greater outreach and access face lower financing obstacles and grow at a higher rate (Beck et al, 2006). Access to finance is also an important incentive for new ideas and technologies (King and Levine, 1993)<sup>10</sup>. Additionally, a strong financial system encourages expansion in the market and

competition for existing firms. It ensures that poor households and small entrepreneurs need not depend on middlemen. On the other hand, an underdeveloped financial system can be uncompetitive, conservative and inimical to poor or small entrepreneurs (Rajan & Zingales, 2003)<sup>11</sup>.

Indirect evidence corroborates the linkages between financial depth, growth, and poverty alleviation. Specifically, financial depth plays a role in lowering inequality and increasing the income of the bottom 80% of the population (Li et al, 1997). Child labour, which is positively correlated with poverty, has been found to be influenced by the financial depth of a country (Dehijia & Gatti, 2002; cited in Honohan, 2004)<sup>12</sup>. This could be because poor households in countries that have well-developed financial systems in place are less vulnerable to economic shocks. Finally, as Rutherford points out, provision of financial services to poor people need not only be for increasing income, empowering women, or starting small businesses – it may simply aim to help them “manage better what little money” they already have (1996).

2.9 It has been hypothesised that in government-controlled banking systems, formal credit is susceptible to elite capture, undermining efforts to advance rural development. In a seminal study looking at India’s vast banking system, Burgess and Pande (2003)<sup>13</sup> show that the rural bank expansion programme, mandated by the Indian government from 1977 – 1990, can explain approximately half of the drop in poverty from 61% in 1967 to 31% in 2000. Further, they

find that rural bank expansion was associated with non-agricultural growth. These results demonstrate that an increase in bank branches and the resultant improvements in physical access were critical in reaching out to remote areas and decreasing poverty. Although the causal link between financial depth (a well-functioning and well-developed financial system) and growth is well-established, the link between the breadth of financial services (outreach of financial services) and growth is less well-defined (Beck & de la Torre, 2006). The four central functions of finance are: mobilizing savings; allocating capital; monitoring the use of credit funds by entrepreneurs; and transforming risk by pooling and repackaging it. These functions need to be buttressed by legal, regulatory, and informational structures that enhance the quality of the financial system, which cannot be measured simply by looking at the scale or the breadth of the system (Honohan, 2004). Additionally, as discussed earlier, broad access does not always signify usage.

## **2.10 Financial Deepening In India**

### **Social Banking in India: Background**

In the 1950s, an extensive network of rural cooperative banks was established with the intention of leveraging country-wide deposits and savings towards agriculture and small-scale cottage industries. However, this venture failed to materialise as bank credit was funnelled to big corporations that already had majority

stakes in the banks. As a result, banks were nationalised by the RBI in 1969 in order to:

- Check the control of banks by a few corporations;
- Organise savings from remote and rural regions;
- Use the deposits mustered by banks to achieve equitable growth; and
- Concentrate on priority sectors like agriculture and small industry (Basu, 2005). Towards this end, RBI stipulated that at least 40% of bank lending go towards the Priority Sector, out of which 25% had to be extended to the weaker sections within the Priority Sector. Other features of nationalised banking included the 'Service Area Approach' (SAA) wherein a single bank was assigned 15-20 villages, after which other banks could set up branches upon obtaining the initial bank's approval. Similarly, the 1:4 license rule established in 1977 dictated that a bank could open a branch in a banked location only after opening four branches in unbanked locations.

2.11 More recently, sector liberalisation has led to some changes especially, with respect to increased competition and deregulation. Today, the aforementioned SAA and the 1:4 license rules have been done away with. Interest rates are no longer regulated, although interest rates on loans under Rs. 2 lakhs are still subject to a cap equal to the prime lending rate, while short-term deposits are subject to a floor. This approach, referred to as 'social' or 'development' banking, hinged on the assumption that

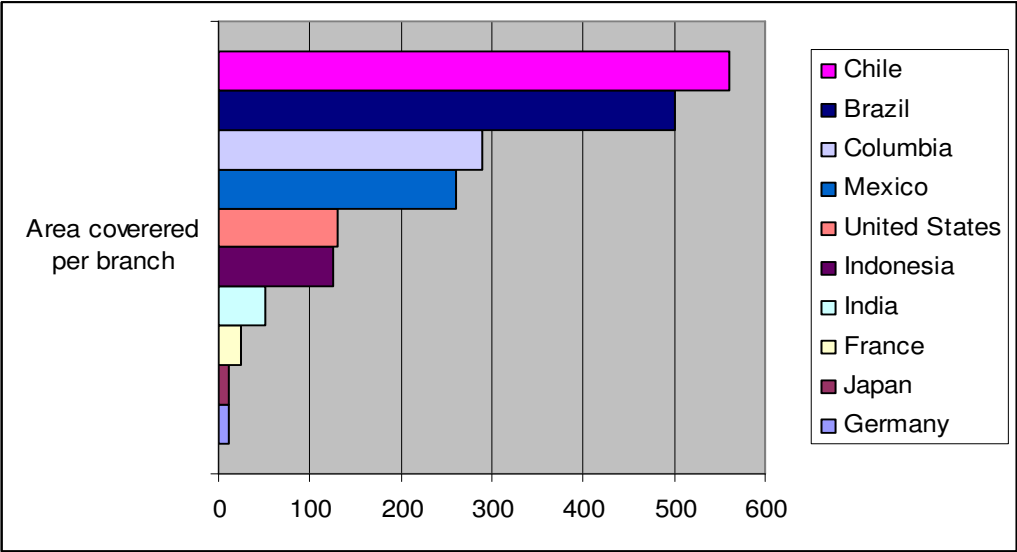
small, rural, and poor borrowers were not bankable and would be neglected by banks unless compelled by policy (Burgess & Pande, 2003; Leeladhar, 2006; Basu, 2005)<sup>14</sup>. From this viewpoint, formal finance could be delivered to the poor only after banks were 'coerced' by the government (Burgess & Pande, 2003). As a result of these policies, until recent years, nationalised banks and regional rural banks (RRBs) control over 73% of all commercial banking assets, and 52.4% of the assets of all financial institutions. Further, rural areas have yet to see competition in the banking sector.

## **2.12 Indicators of Financial Depth in India**

As a result of the bank nationalisation programme and the government's efforts to increase bank branches in rural and remote areas, the national distribution of financial services is quite extensive compared to other developing economies (Basu, 2006). There are over 32,000 rural bank branches (with a total of 68,000 rural and urban branches) including public and private sector banks and RRBs. There are more than 14,000 branches of rural cooperative banks comprising about 98,000 retail outlets of Primary Agricultural Credit Societies (PACS). The post office system, comprising 154,000 post office branches, has about 114 million savings accounts and services 110 million money orders. Looking at the period between 1973 and 1985, bank branches in rural areas grew at an average yearly rate of 15.2% which is almost double the growth rate of branches in semi-urban (6.4%),

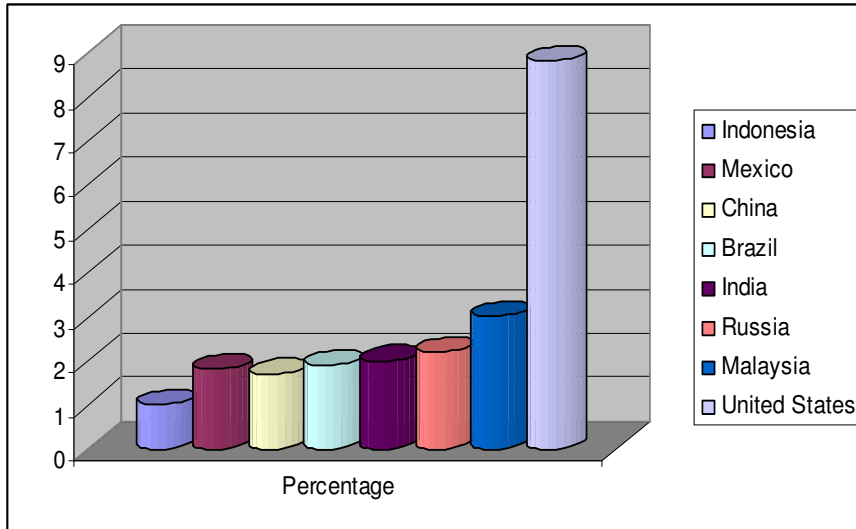


urban (7.8%), and metropolitan (7.5%) areas. Each rural bank serves an average population of 16,000 and if including rural cooperative banks, this falls to about 12,800 - almost on par with Indonesia and Mexico. India's vast network of banks is reflected by its low average geographic area per branch, compared to other countries. The level of insurance penetration, measured as premium as a percentage of GDP, was also marginally higher in India than in Brazil, China, Indonesia, and Mexico.



**Figure: 2 International comparisons of area covered per branch (square kilometres)**

Source: Basu (2006)



**Figure 3: Insurance penetration across countries in 2000 (premium/GDP)**

Source: Basu(2006).

### **2.13 Indicators of Financial Inclusion in India**

#### **Access to Credit**

As mentioned before, one of the primary objectives of India's banking system has been the extension of institutional credit to rural India, where the majority of the poor live. It would appear that while advances have been made since the 1960s towards greater inclusion, a substantial majority of India's rural poor still lack access to formal finance. We have already seen that, in spite of the vast banking network, only about 30% of Indians have a savings account. Below, we look at some of the issues related to access to credit.

2.14 The table below documents the decreasing share of non-institutional sources of credit, most notably the fall in the share of

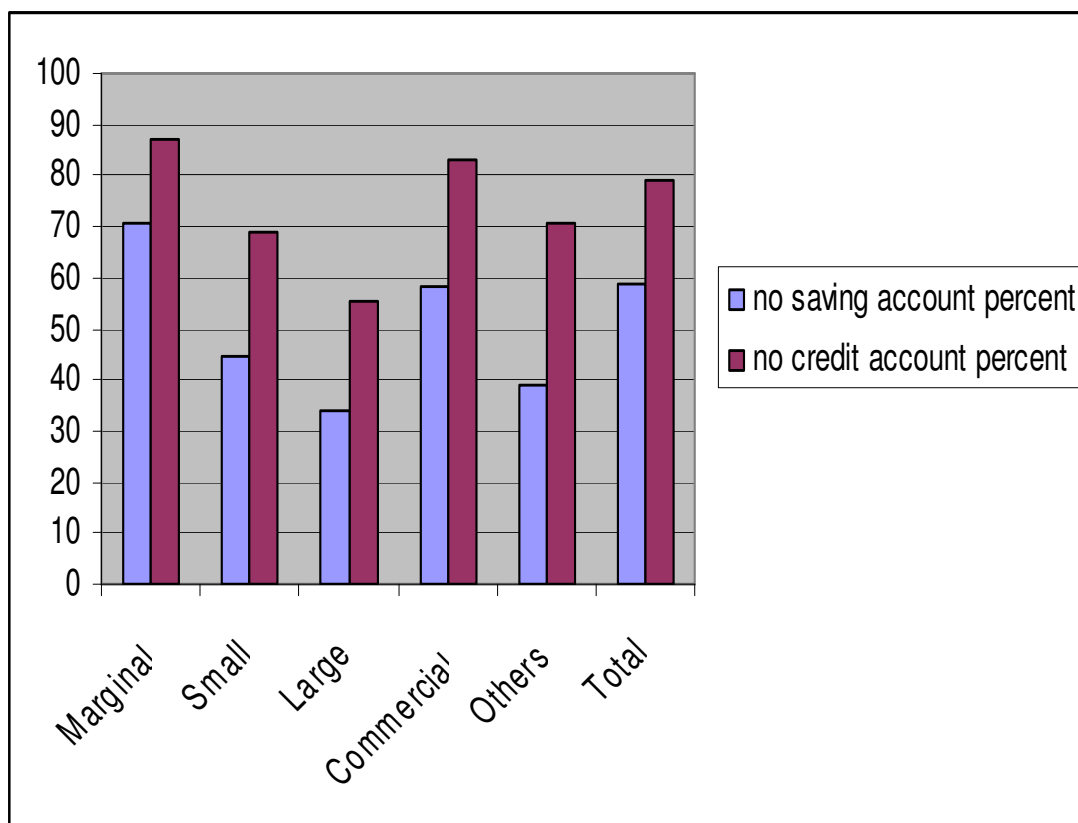
moneylenders as a source of finance. Troublingly, this trend reversed between 1991 and 2002, with the share of moneylenders rising from 17.5% in 1991 to 26.8%. Clearly, the expansion of financial services in rural areas has fallen short of demand in the last decade (Mohan, 2006).

**Table 2.14.1: Relative Share of borrowing of cultivator house holds**

Sources of Credit	1951	1961	1971	1981	1991	2002\$
<b>Non Institutional Money Lenders</b>	92.7	81.3	68.3	36.8	30.6	38.9
<b>Institutional Co-op Societies etc.</b>	69.7	49.2	36.1	16.1	17.5	26.8
<b>Commercial Banks</b>	7.3	18.7	31.7	63.2	66.3	61.1
<b>Unspecified</b>	3.3	2.6	22	29.8	30	30.2
<b>Total</b>	0.9	0.6	2.4	28.8	35.2	26.3
	----	-----	-----	-----	3.1	-----
	100	100	100	100	100	100

Source: All India Debt and Investment Surveys, Address by Dr.Rakesh Mohan at the Annual Bankers' Conference 2006

**Figure 4: Low Access to Finance**



Source: Rural Finance Access Survey (2003) in Basu (2005)

Note: Marginal Farming Households= landholding < 1 acre.

Small= 1 to 4 acres; Large farms= 4 acres; Commercial households= with or without land but with income from non farm sources exceeding half of total household income; Others = Mixed households with land and non farm commercial incomes but the latter being less than half of their total household income.

2.15 The Rural Finance Access Survey (RFAS, 2003)<sup>15</sup> conducted jointly by the NCAER and the World Bank also provides us with some answers as to which segments of rural borrowers have

access to formal credit and why. According to their survey, the most common sources for rural households with access to credit are commercial banks, rather than RRBs (Basu, 2005). Commercial banks contain over half the deposits, while RRBs only account for 34%. Cooperatives and post office branches are in fact not a very significant source of finance for rural households. Studies across the world have found that the level of income and occupation are important determinants of access to credit and savings (Peachy & Roe, 2006; United Nations, 2006)<sup>16</sup>. The RFAS-2003 confirms this by demonstrating that farmers with bigger landholdings benefit from greater access to financial services than smaller farmers (Basu, 2005). Figures show that 44% of large farmers have access to credit, and 66% of them have a savings account. In sharp contrast, 87% of marginal farmers do not have access to a savings account, and 71% cannot access credit. Commercial households, that is, households engaged in some form of micro-enterprise, are also strapped for finance. Thus, the system appears to be skewed in favour of richer rural borrowers.

2.16 The report also shows that despite the overall decrease of moneylenders as a source of credit, in the absence of formal sources of credit, rural borrowers still turn to the informal. Around 44% of surveyed households reported having borrowed money informally at least once in the preceding year at an average interest rate of 48% per annum (as opposed to 12.5% for loans

from commercial banks) (Basu, 2005). Informal lending is most significant for marginal farming households, followed by small and commercial households, which complements the data that marginal farmers are the most deprived of formal credit (Basu, 2005). While evidence indicates that poor households often borrow from both formal and informal sources (United Nations, 2006), in this case, poor households are able to borrow overwhelmingly from informal sources.

#### **2.17 Barriers to Access**

A recent survey reveals that 81% of the 63,016 household surveyed save (Max New York Life – NCAER, India Financial Protection Survey, 2007)<sup>17</sup>. Yet in spite of this widespread financial behaviour, only 59% of the adult population, or 30% of the total population, has access to a savings account. Why are poor farmers and others unable to access credit or obtain deposit accounts from the formal financial sector?

**2.18** In 2006-07, Invest India Market Solutions (IIMS) carried out a survey of one lakh respondents to uncover the characteristics of respondents with bank accounts. One of the striking findings of the resulting data shows that there is a strong link between annual income and ownership of bank accounts by occupation group. The data shows that in both urban and rural areas, banks are able to cover almost all individuals with annual income above Rs. two lakh. It would appear that even differences in bank coverage between states can be explained by the differences in

income and savings among the various states. For example, in comparing Kerala and Bihar, Kerala has one of the highest rates of savings in India and consequently also one of the highest proportions of bank accounts. Conversely, Bihar, where savings are extremely low, also has a much lower proportion of bank accounts (Committee for Financial Sector Reforms, 2008)<sup>18</sup>. As mentioned earlier, while this does not establish causality, it does show a strong link between low incomes and access to formal finance. A lack of legal documentation is another major obstacle that poor households employed in the informal sector face when trying to open any kind of bank account, be it savings, credit, or current.

**2.19** Poor individuals, especially women and other marginalized groups, rarely have legal proof of identity, address or employment. This renders obtaining formal credit even more onerous. Evidence from around the world also shows that cultural norms, as well as age and gender, are important determinants of access to finance. A survey of bank managers in Madhya Pradesh revealed a perception that women borrowers were more trustworthy and less of a default risk (United Nations, 2006). However, a greater percentage still believed that women were simply being used by men to gain loans. Culturally, poor households may be dissuaded from using banks regularly, since banks tend to be organisationally and culturally designed to serve

a wealthier clientele. Specifically, Kempson (2006) refers to the psychological and cultural obstacles which deter people from using banks. Rural households may feel intimidated by banks and develop a belief that banks are intended for more educated and richer individuals. This self-exclusion by low-income households may be as important a cause for exclusion as direct exclusion by banks. Lastly, banks have historically promoted banking transactions specifically at bank branches. As prior microfinance practice has shown, poor clients, especially in rural areas, may respond better to 'doorstep' banking, that is banking which takes place at a location which is both convenient and comfortable, usually the client's home. Basu (2005) also points out that currently banks do not have the option to recruit local staff. This might allow the bank staff to better respond to client needs. Basu (2005, 2006) directs our attention to two additional roadblocks that rural households face when attempting to take a loan from a bank. Firstly, banks require collateral to make loans and RFAS (2003) shows that almost 90% of bank and RRB borrowers put up collateral. Given that land is the most common form of collateral in rural areas and poor households' legal/documentation issues, a sizable proportion of the poor is excluded (United Nations, 2006). Interestingly, banks typically do not collect upon default, thus collateralising loans has few advantages compared to the disadvantage of added costs. Secondly, the survey indicates that bribes, ranging from 10% to 20% of the loan, are common in all



formal financial institutions including banks, RRBs and credit cooperatives. The average time taken to process a loan application is almost 33 weeks in a commercial bank. Such cumbersome and costly procedures make it unattractive for households to rely on formal finance.

2.20 As the statistics demonstrated earlier, banks have also been unable to open savings accounts for the bulk of poor people. A CGAP (2002) donor brief identifies the following four essential features of a savings product: security, low transaction costs, appropriate design, and interest rates. A savings account can thus play an important role in helping poor people save safely and securely. However, the design of such products should be suited to the needs of the poor. Even though the poor require flexible products and services (United Nations, 2006; Basu 2005), bank savings accounts often have high minimum balances (Peachey & Roe, 2006). Most poor people around the world are simply looking for products that incorporate the following values: “security; convenience; liquidity; confidentiality; products appropriate for their needs; helpful, friendly, and respectful service; returns; and potential access to loans” (CGAP Interview with Steve Peachy, undated). However, the preceding section has established the varied and cumbersome barriers which keep the poor excluded. In recognition of these barriers in India, RBI announced several changes to banking operations in 2005-06.

## **2.21 Policy Changes to Increase Financial Inclusion**

The RBI's Annual Policy Statement of April 2005 was widely introduced the issue of financial inclusion, declaring that 'banking policies tended to exclude rather than attract vast sections of the population. ' To counter this reality, three major moves were initiated, sparking a renewed commitment to financial inclusion. The first major step established a 'No Frills' basic banking account, which requires a zero or extremely small minimum balance. While the nature and number of transactions through this account can be restricted, banks are required to convey these restrictions to customers at the time of account opening. Further, banks have been asked to adequately publicise these accounts. The promotion and dissemination of the Kisan Credit Card (KCC), an important means to reduce transaction costs, has also been given due importance. This scheme was introduced in 1998-99 with over 30 million cards issued by 2003; however, RFAS 2003 showed that use of the card was patchy with larger farmers reporting the higher usages. Secondly, the RBI has reduced some of the transaction costs incurred in opening bank accounts by reducing the stringency of the 'Know Your Customer' (KYC) norms for individuals who do not foresee having more than Rs. 50,000 in all their combined accounts and whose annual total borrowing will not exceed Rs.100,000. Those lacking proof of identity or residence can be introduced by an account holder of at least six months for whom the full KYC procedure has already

been completed. Finally, the RBI has asked banks to charge reasonable amounts for services rendered and to be transparent about these charges from the outset. In addition to changes in overall bank policy, the RBI also announced a targeted drive for financial inclusion throughout the country, wherein each household would receive one 'no frills' bank account. The first pilot project was conducted in Pondicherry district, led by Indian Bank and completed in December 2006. Since then, several drives, typically lasting one year each, have been completed in different parts of India, with the most notable of these being the achievement of 100% financial inclusion in the state of Himachal Pradesh and in Gulbarga district, one of the most developmentally backward districts in Karnataka. Thus far, about 1.58 million bank accounts have been opened as part of the drive, with 5.84 billion worth of additional accounts remaining before the country can claim to be 100% financially included ('RBI asks banks to offer credit through no-frill accounts', The Economic Times, 12 September 2008). As mentioned earlier, this initiative is significant in that much of the policy and hence research on financial access in India has tended to focus on credit extension rather than savings. Given the scale of this exercise and the resources being devoted to it, a study which looks at its feasibility and efficacy is both timely and pertinent.

**CHAPTER-3**  
**OBJECTIVES OF THE STUDY**

## CHAPTER-3

### OBJECTIVES OF THE STUDY

#### **3.1 The main objectives of the study are:**

- To identify the size and nature of financial exclusion in Gulbarga.
- To understand the drivers of exclusion particularly of credit related financial exclusion.
- To determine the level of need for microfinance initiatives & identify the groups in the community to whom these should be directed.
- To assess the socio-economic impact of the financial inclusion on BPL families.

#### **3.2 Hypothesis:**

On the basis of the objectives considered for the study, the following null hypotheses were developed for the purpose of the present study:

1. There is no significant difference between financial inclusion and lack of awareness by rural households.
2. There is no significant difference between the financial inclusion and institutional negligence by banks.
3. There is no significant difference between household perceptions about the formal and informal sources of finance.
4. There is no significant difference between access to a savings account and usage of that account.

5. There is no significant difference in the perceptions of households between Self Help Group Savings and chit funds.
6. There is no relationship between timing of access and usage of bank account.
7. There is no relationship between occupation and usage of bank account by rural households.
8. There is no significant difference between occupation and the type of savings account held by the rural households.

**Various hypotheses (null as well as alternative) are tabulated as follows:**

Sr.No.	Null Hypotheses	Alternative Hypotheses
H1	There is no significant difference between Financial inclusion and lack of awareness by rural households.	There is a significant difference between Financial inclusion and lack of awareness by rural households.
H2	There is no significant difference between the financial inclusion and institutional negligence by banks.	There is a significant difference between the financial inclusion and institutional negligence by banks.
H3	There is no significant difference between household perceptions about	There is a significant difference between household perceptions

	the formal and informal sources of finance.	about the formal and informal sources of finance.
H4	There is no significant difference between access to a savings account and usage of that account.	There is a significant difference between access to a savings account and usage of that account.
H5	There is no significant difference in the perceptions of households between Self Help Group Savings and chit funds.	There is a significant difference in the perceptions of households between Self Help Group Savings and chit funds.
H6	There is no relationship between timing of access and usage of bank account.	There is a relationship between timing of access and usage of bank account.
H7	There is no relationship between occupation and usage of bank account by rural households.	There is a relationship between occupation and usage of bank account by rural households.
H8	There is no significant difference between occupation and the type of	There is a significant difference between occupation and the type of

	<b>savings account held by the rural households.</b>	<b>savings account held by the rural households.</b>
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**CHAPTER-4**  
**RESEARCH METHODOLOGY**

## CHAPTER-4

### RESEARCH METHODOLOGY

4.1 The current research attempts to find out if there is a relationship between the access to bank account and usage of account. For this purpose, diagnostic research design is adopted.

4.2 Under this design, attention has been given on the following aspects:

1. Selection of sample
2. Method of data collection
3. Data collection
4. Data processing and analysis
5. Interpretation

4.3 **Sample design:**

The target population covered under this project are the household members of BPL families in Gulbarga.

The distribution of the population is as under:

Table 4.3.1:

TALUK	BPL (RURAL)POPULATION WITH RATION CARDS (as per 2001 census)	QUESTIONAIRE SENT (5% OF THE POPULATION)	VALID FILLED IN QUESTIONAIRE RECEIVED
GULBARGA	33526	1676	121
AFZALPUR	3089	154	81
CHITTAPUR	3392	169	122

<b>SHORAPUR</b>	<b>3625</b>	<b>181</b>	<b>81</b>
<b>SHAHAPUR</b>	<b>2527</b>	<b>126</b>	<b>112</b>
<b>JEWARGI</b>	<b>2666</b>	<b>133</b>	<b>80</b>
<b>YADGIR</b>	<b>7036</b>	<b>351</b>	<b>122</b>
<b>ALAND</b>	<b>3897</b>	<b>105</b>	<b>81</b>
<b>SEDAM</b>	<b>3824</b>	<b>191</b>	<b>77</b>
<b>CHINCHOLI</b>	<b>1851</b>	<b>165</b>	<b>122</b>
<b>Total</b>		<b>3251</b>	<b>999</b>

**Sampling:** The sampling method used in this project is stratified random sampling. To ensure the true representative sample, few villages were selected at random to represent various areas and also to keep the convenience of data collection in mind. Then the samples were drawn at random from these villages to ensure cross section representation from these villages.

- 4. 4** Considering 5% of the population size, all the districts were given the questionnaire to fill in. But based on factors like literacy level and other reasons, valid answers were taken for the analysis. The valid number of questionnaires collected is mentioned in the table- 4.3.1.

**Sample size:** 999 respondents participated in the study. The technique of data analysis used in this study are examination of differences between independent samples and paired samples, and as well as association between variables.

- 4.5 For the purpose of comparison of means of two independent groups, independent sample t-test is used. For this purpose the sample size required for medium effect size ( $d=0.5$ ) with a power of 80% and a 0.05 significance level is 130.
- For the purpose of paired sample t-test, assuming a medium effect size and a correlation between scores of 0.6 or less, the sample size of 30 to 40 is adequate for 80% power of test and 0.05 significance level.
- 4.6 The sample size required for an independent sample one way ANOVA analysis, assuming medium effect size (Cohen's  $f=0.25$ ), is around 150 for 80% power of test and a 0.05 significance level.
- 4.7 For correlations, the correlation coefficient itself is a good measure of effect size. For medium effect size (i.e.,  $r=0.30$ ), and for 80% power of test, the required sample size is 70 at 0.05 significance level.
- 4.8 The sample size used in this study meets the above requirements of sample sizes for various statistical analysis to be carried out in this study at 0.05 significance level and for 80% power of test.
- 4.9 The total sample size used in this study is 999 ( $n=999$ ). The demographic analysis of sample is shown in TABLE- 4.10.1 and depicted graphically in FIGURE- 5, 6, 7 and 8.

#### **4.10 DATA COLLECTION METHOD:**

The method used for data collection is through questionnaires.

The merits of this method are:

- This method is economical as compared to other methods like interview.
- It is free from interviewer's bias.
- Respondents get enough time to give well thought answers.
- Respondents in far away areas can be reached.
- Large number of samples can be covered.

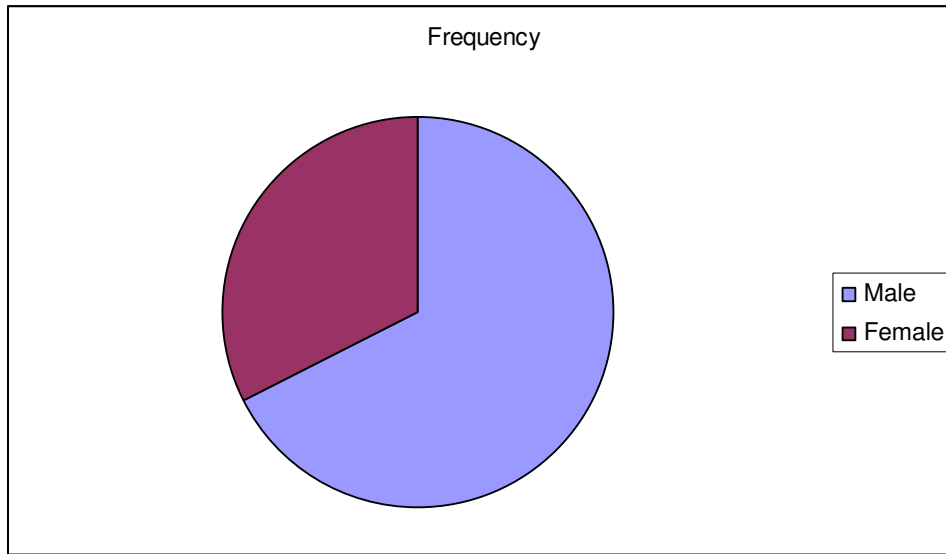
**Table: 4.10.1 Demographic Analysis of the sample:**

Demographic Characteristics	Frequency	Percent
<b>Gender</b>		
Male	674	67.5
Female	325	32.5
Total	999	100
<b>Education</b>		
Literate	558	55.9
Illiterate	441	44.1
<b>Occupation</b>		
Agricultural Labour	563	56.4
Self Employed	203	20.3
Others	233	23.3

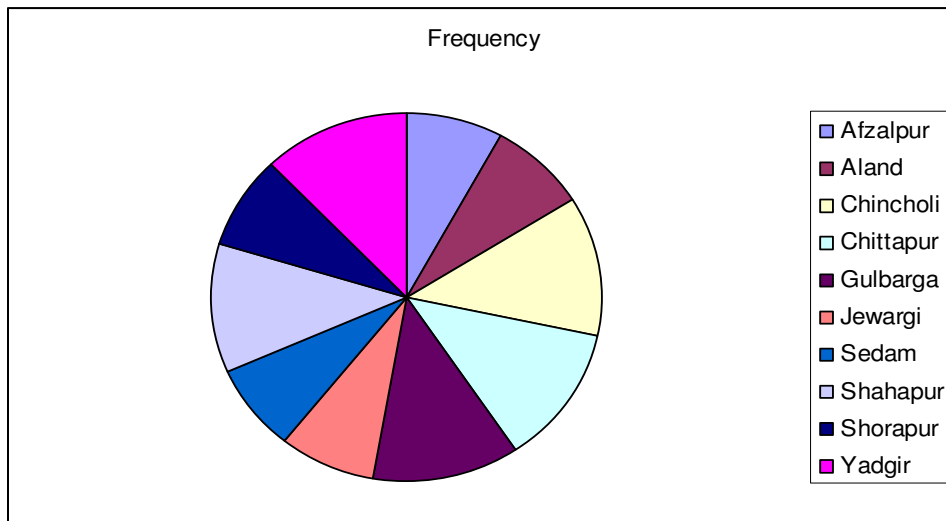
Gender distribution of the sample:

The pie chart which describes the sample is shown below:

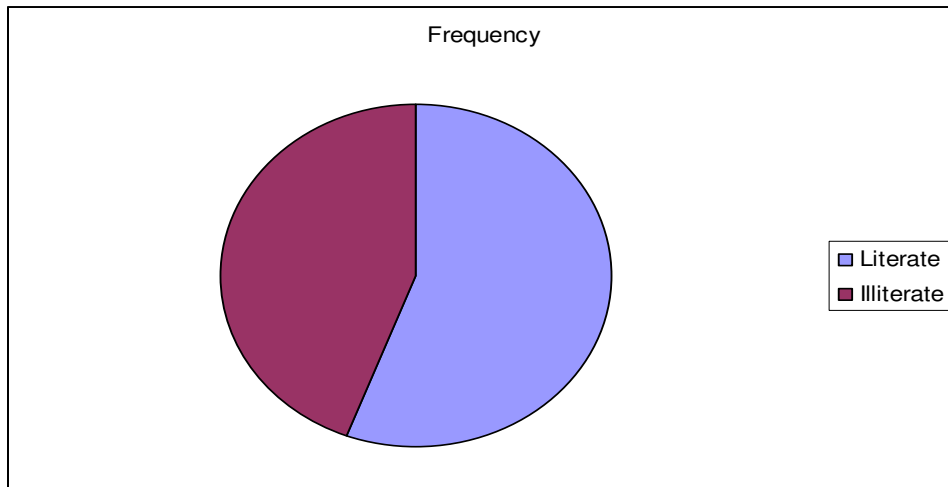
**Figure 5: Gender distribution of the sample:**



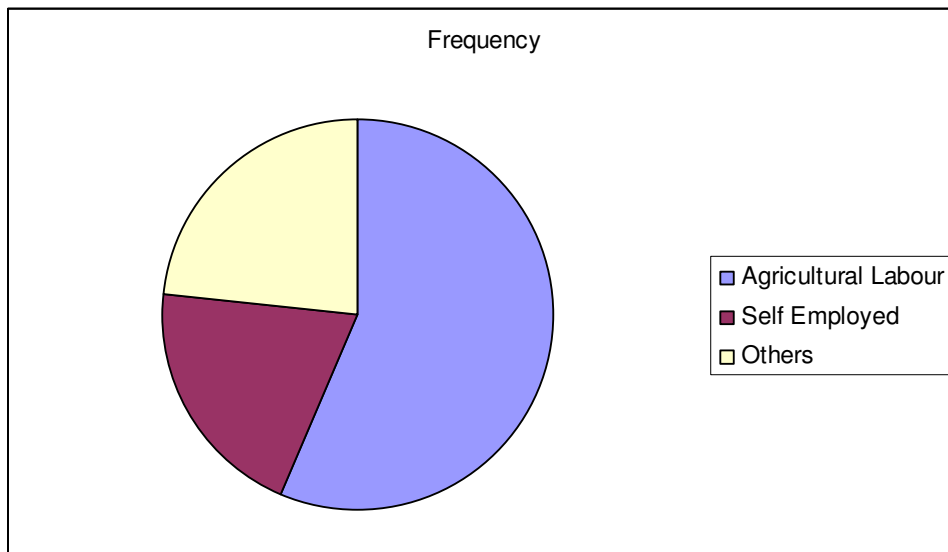
**Figure 6: Place Distribution of sample:**



**Figure 7: Literacy level of the sample population:**



**Figure 8: Occupation of the sample:**



#### **4.11 Data Collection:**

The study is an empirical one based on sample survey method. The study is basically dependent on primary data. The required primary data was collected by means of a questionnaire distributed to all the ten blocks of the district. The secondary data was collected from the national and international E-journals, Research articles, books and reports published by RBI.

#### **4.12 RESEARCH TOOL:**

Questionnaire is the tool through which the required primary data were collected. The questionnaire contained 25 questions divided into 3 parts namely, perception of financial inclusion drive, Access to the bank and savings behavior of the BPL households in Gulbarga.

The interview method was also applied to analyze the views of the bank officials in Gulbarga.

A pilot study was conducted with a sample of 100 respondents covering all the blocks of Gulbarga district. Based on the information collected from the respondents, the study was structured using the qualitative and quantitative research methods.

#### **4.13 DATA PROCESSING AND ANALYSIS**

After the data collection, the completed questionnaire were scrutinized and edited to ensure accuracy, consistency and completeness. Most of the analysis is based on the responses shown in the form of frequency tables. Simple tables were



prepared for understanding the general profile of the respondents and simple statistical techniques such as percentages and mean were used for analyzing the data.

#### **4.14 Statistical tools employed:**

Descriptive statistical tools such as frequency distribution, mean values, quartile distribution and standard deviation have been used to describe the profiles of respondents. Inferential analysis such as Chi-square test, Freidman's test, ANOVA test, 't' test, Multiple Regression test, Correlation coefficient and other relevant tools were used to test the hypothesis.

#### **The research concentrates on three broad areas:**

**I. Process of Financial Inclusion:** This study documents the process by which households acquire savings accounts. This includes the means by which banks identify 'un-banked' households, the manner in which the account is opened and the marketing and dissemination strategies used by banks to spread awareness about the drive. For those who continue to remain 'unbanked', this study seeks to understand the reasons behind this exclusion from banking services. Is this exclusion self-induced that is, households do not feel the need for a bank account or has it taken place due to other reasons like institutional negligence or ignorance on the part of households.

#### **II. How do Households experience Financial Inclusion:**

This section of the study looks at how households and banks

negotiate the process of becoming 'banked.' In other words, we look at the ways in which the drive for financial inclusion shapes the financial lives of households in a district, if at all. This study reports on household perceptions of banks and bank officials and the convenience, comfort and compatibility of formal finance in their lives vis-à-vis informal and semi-formal forms of finance such as moneylenders, pawnbrokers, microfinance institutions and Self Help Groups etc.

### **III. Role of Financial Inclusion in Financial Behaviour:**

Finally, the study also examines whether access to a savings account leads to usage of that account and of other formal financial services. Particularly, the study aims in knowing whether or not the drive is relevant to the lives of the households it seeks to service.

While there are currently several districts across India which have implemented the financial inclusion drive, this study examines the drive in Gulbarga district in Karnataka. Gulbarga, in the northern part of Karnataka, is considered to be one of the most backward districts in the state. In fact, in the state-compiled Karnataka Human Development Report 2005 ranks Gulbarga as 26th out of 27 districts in developmental terms. It is also an extremely large district consisting of over 1,300 villages and a population of over 30 lakhs as per the 2001 census. Thus, Gulbarga is intriguing from the point of view of research for two reasons. Firstly, the achievement of 100% financial inclusion in this district becomes

hugely challenging for banks and other parties involved. Secondly, the relevance of financial inclusion in a poorer region can have important implications for other poor regions as well. In a developmentally advanced region, it would be fair to say that access issues in terms of roads and modes of transport, educational levels and priorities of bank clients would contribute to making any drive for inclusion more rather than less achievable.

The intention of this study is to focus on low income households since previous studies tell us that this is the section of population which is most deprived of access to formal finance. Thus, all the households examined herein are households deemed Below Poverty Line (BPL), identified by state-issued ration cards which enable them to buy food grains at subsidised prices through the Public Distribution System. This methodology's primary weakness lies in the fact that there is extensive misrepresentation in the classification of households as BPL, given the benefits which accrue to households with BPL status. Thus, many BPL households may, in fact, be Above Poverty Line (APL). However, this method was the most objective method of identifying low-income households easily and efficiently.

This study uses both quantitative and qualitative techniques. Surveys, in-depth interviews and in-situ observation were used as the primary data collection methods during the study.

A structured questionnaire in the form of a survey was administered to a thousand respondents, spread over fifty villages. This survey collected information on the logistics and level of awareness regarding the drive for financial inclusion, on whether households opened an account and are using it, the availability of finance, both formal and informal, for households at large, the financial habits of respondents and their perceptions of formal and informal banking.

Given the size of Gulbarga, the survey was conducted in two blocks out of the eleven blocks of Gulbarga district in northern Karnataka. Shorapur and Gulbarga blocks have the highest proportion of BPL-households, according to the Karnataka's Rural Household Survey 2003 (available here <http://nitpu3.kar.nic.in/Samanyamahiti>). Twenty-five villages in each block were randomly chosen. The first twenty BPL households encountered in each village were surveyed.

In order to ensure that the sample did not suffer from selection bias and enjoyed some level of random selection, the survey was conducted at a minimum four different hamlets of the village. It was also ensured that no two respondents lived next door to each other. In other words, every other house was skipped. This format meant that we did not restrict our sample to BPL households of any one community or belonging to one location within the village. In picking BPL households, since ration card lists were

not easily available, it was not possible to select twenty households randomly from each village.

In-depth interviews were conducted with a variety of stakeholders including bank officials both at the RBI and the district-level banks in order to understand the meanings that banks attach to this drive and also to know the procedures by which households were included including marketing and operational changes that the drive necessitated. Unstructured interviews were also conducted with households, both banked and unbanked. These interviews were conducted in Gulbarga block alone.

#### **4.15 The reasons for taking Gulbarga as the sample.**

##### **Gulbarga: Background**

Gulbarga district, located in the northern part of Karnataka, used to be a part of Hyderabad state till about 1956. Gulbarga is one of the biggest districts in Karnataka and covers about 8.46% of the total area of the state. It comprises ten blocks namely, Gulbarga, Afzalpur, Chittapur, Shorapur, Shahapur, Jewargi, Yadgir, Aland, Chincholi and Sedam. It has 1378 revenue villages and 337 Gram Panchayats. It has a population of 31.25 lakhs which is 5.93% of the state's population, according to the 2001 census. The percentage of BPL families in the state is 33.85 per cent. Gulbarga is one of the districts that have implemented the National Rural Employment Guarantee Programme (NREGP). NREGP provides one hundred days of employment to at least member of any household that desires it. Usually, the Village Panchayat Members

have the responsibility of processing applications, distributing employment cards and arranging for bank accounts for all individuals who are interested.

The Karnataka state government released a state Human Development Report in 2005, where Human Development Index was computed for every district in the state, based on UNDP HDR 1999 methodology. According to this report, Karnataka's HDI (0.650) places it at seventh amongst all Indian states and higher than the all-Indian level (0.621). Gulbarga district placed 26th out of 27 districts, registering at HDI of 0.564. On each of the health, education and income indicators that make up the aggregate HDI, Gulbarga placed 20th, 25th and 25th, respectively.

#### **4.16 The Financial Inclusion Drive: Describing the Process**

Before looking at the survey results, this section provides an overview of how the financial inclusion drive was conducted in Gulbarga. This information was collected mainly through interviews with bank officials in Gulbarga and Central Bank officials in Bangalore.

In 2006-07, the RBI announced a drive for financial inclusion to be initiated in every state whereby the State Level Banking Committees and the state lead banks would be responsible for promoting 100% financial inclusion in at least one district in their home state. The State Level Banking Committee (SLBC) is a committee consisting of representatives from all banks in the state, the state government and RBI which meets regularly to

coordinate banking activities within the state. The lead bank in a state is that bank which has the maximum number of branches and hence, outreach in that state. The lead bank is also the Convener of the SLBC.

It is noteworthy that each state has implemented the drive with slight variations. Thus, while financial inclusion typically entails opening savings banks accounts for all unbanked households, lead bank officials interviewed both in Chennai and Bangalore underscored the importance of other financial services as well. In both regions, financial inclusion was seen as a phased process, the first phase of which involved opening savings accounts. In Tamil Nadu and Pondicherry, the second phase was envisioned as the extension of credit through the provision of overdraft facilities and the third phase was the provision of insurance products. In Gulbarga, on the other hand, the second phase is currently being implemented as the extension of General Purpose Credit Cards<sup>5</sup> to BPL households.

Some states have been extremely enthusiastic in promoting the drive. For instance, as of August 2007, nine districts in Karnataka were included. Others have been more cautious. In Tamil Nadu, only one district has been included so far. Furthermore, in Gulbarga, No Frills Accounts are currently being opened only for the NREGP scheme, whereas in Pondicherry, at least theoretically, people who want No Frills Account can still hope to get one.

While Karnataka's lead bank is Syndicate Bank, the lead bank, in the district of Gulbarga, instrumental in implementing the drive was State Bank of India. The decision to undertake the drive in Gulbarga was taken in July 2006. The actual opening of accounts began in August 2006. On January 18, 2007, the RBI formally declared Gulbarga to be 100% financially included. While the lead bank was not able to provide final figures, newspaper reports indicate that four lakh no-frills accounts with zero-balance were opened (Times of India, 19 January 2007).

How did the lead bank implement this mammoth exercise in one of most vast and developmentally backward districts in Karnataka? The first step in the exercise involved identifying all the households in Gulbarga from whom bank account information could be gleaned. While extensive information was available for rural areas, urban areas proved to be more difficult. This issue was resolved by using lists from the Food and Civil Supplies Department for urban regions. Once these lists were compiled, each of the banks active in Gulbarga district was provided with the lists for their service areas. The lead bank also established relations with the District NGO Federation (DINFED) so that NGOs operating in various parts of Gulbarga could be identified who would help with some of the outreach aspects of the drive. NGOs were responsible for: identifying unbanked households through surveys, helping these households fill application forms for bank accounts at their home, delivering application forms and other



materials to the bank, picking up the passbooks for the newly opened no-frills accounts and delivering the passbook to the account holder. NGOs were paid Rs. 18 per new account opened by the bank where the account was held. Every month, each bank would send a report to SBI, delineating how many accounts were opened and whether or not the drive was on target. SBI also promoted the drive through newspaper advertisements and posters regarding the drive. In total, 26 banks and 56 NGOs were involved in this exercise.

What kind of households received no-frills zero-minimum balance accounts? Originally, the drive was conceived as providing accounts to households with no access to formal finance. Thus, households that had postal savings accounts or whose members were also members of Self Help Groups (SHGs) that were linked to banks did not come under the ambit of the drive. Lead bank officials indicated that this changed during the drive. It was decided that postal savings account would no longer be sufficient to indicate inclusion. The drive for financial inclusion was implemented alongside the NREGP. NREGP was initiated in Gulbarga in early 2006. Once the drive for financial inclusion began, all NREGP accounts opened were also No Frills Accounts with zero minimum balance. 2,21,736 accounts were opened for NREGP, not all of them No Frills (Presentation by P C Jaffer, IAS during Seminar on LED by ILO).

At the end of time period allotted for the drive, each bank comptroller was asked to certify that their target had been achieved. Some comptrollers chose to include the number of accounts in their letter of certification, others chose otherwise.

The conversation with bank officials show that some of the major obstacles for the lead bank in implementing the drive included having access to household-level information, conflicts between NGOs and banks and motivating banks to be engaged during the drive. While most of the public discourse surrounding this exercise tends to highlight the commercial opportunity for banks to capitalize on acquiring a much bigger client base, the picture on the ground tells a different story. Similarly, while officials in policy-making positions in Bangalore and Chennai tended to focus on the creation of a potentially huge market for banks, officials closer to the field remain sceptical of these claims. While most embrace the precept that these accounts are necessary and useful for low income communities, almost all agree that they cannot be economically viable for banks. In fact, the ledger of these No Frills Accounts in one regional rural bank branch that this author had the opportunity to visit showed that of the four hundred twenty two accounts opened, only twenty contained more than two lines of transactions.

Almost all the transactions involved withdrawal of money from check deposits in the accounts. In other words, the balance in these accounts remained zero for most its existence. Given that

these accounts are not profitable or even break-even for banks, it is not surprising that they were at odds with the NGOs whom they themselves had employed to open accounts.

Banks informed that they would often reject some of the applications brought in by NGOs claiming that these accountholders were past account holders of the bank who had allowed their account to lapse voluntarily.

#### **4.17 Describing Survey Respondents**

The survey was administered to 999 respondents in Gulbarga block. As mentioned before, all households were BPL households, identified by their ration card. The respondents were largely Hindu. A caste break-up revealed that the respondents were equally divided between the Scheduled Caste category and Other Backward Castes. The average number of members in each household was six, with about 3.4 adult members on average. The education levels amongst the respondents were extremely low. 20% of the households have only one literate family member, 25% have two and 13% have none. In other words, a little over 80% have at least one literate member. The picture is less optimistic than what the numbers describe. Literate numbers in families tend to be the younger members of the family, typically children, who have very little control over decision-making in the household, especially in financial matters. The heads of the households interviewed were overwhelmingly illiterate with 73% reporting they had never been to school.

About 67% of the families live in semi-pucca houses and a third live in kaccha houses. Given the rural focus of our study, it comes as no surprise that over 90% of our respondents live in self-owned dwellings. Land ownership was also significant in our survey with about 54% of our respondents owning on average 3.4 acres of land. The major source of livelihood for our respondents was agriculture. Typically, respondents had more than one source of income, with own agriculture, agricultural labour and sharecropping topping the list.

#### **4.18. Evidence from the Survey**

The partial evidence below from the survey covers only one block that the survey was conducted in. Essentially, this represents only half the data collected.

##### **4.18.1. Perception of Financial Inclusion Drive**

Firstly, the issue of how the financial inclusion drive was conducted on the ground is taken. Level of knowledge about the drive, as revealed in by the survey, was extremely limited. Only 19% of the sample knew that banks were opening zero minimum balance accounts and a miniscule 4% reported that a survey had taken place in their village where they were whether or not they had a bank account. The informant about the drive was overwhelmingly Village Panchayats, not NGOs or bank officials as one would expect.

Secondly, the connection between the implementation of the NREGP and the financial inclusion is extremely significant. In fact,

the survey finds that it was only a subset of those who had availed of the NREGP assistance who had knowledge about the zero minimum balance account. In other words, not a single respondent who had not received assistance under the NREGP knew of the drive. In fact, all those who opened the account also answered in the affirmative to whether or not they received assistance under NREGP. 34% of the respondents or 168 respondents received assistance and out of this subset, 148 first-time account-holder respondents opened 186 accounts since the beginning of the drive.

The table below delineates some of the reasons why the rest of the sample did not open accounts. Here the top reason was a perceived inability to save on the part of poor households. However, even amongst this group (adjusting for those who already have a bank account), opinions were almost divided as to the desire to open accounts, with 45% expressing a desire to open accounts and 50% expressing a distaste for bank accounts. What are some of reasons why households want an account? The top reason by far was to save money (48%) and the second one was to receive government assistance (15%). For households that do not want a bank account, the reason was once again the perceived inability to save (81%).

Close to 90% of those who opened accounts maintained that the reason for opening the account was to receive some form of government assistance.

This connection would explain why most respondents have heard of opening of bank accounts from Village Panchayat members rather than from NGOs since it is the Village Panchayat which is responsible for opening accounts under NREGP. Similarly, 84% reported that they received help opening the account and once again, Gram Panchayat officials topped the list of those who helped respondents open account.

As mentioned before, some households opened more than 1 account in the time period. On average, houses which did open accounts opened 1.3 accounts.

The average minimum balance in these accounts was Rs. 113 that is the amount required to put in their account to open their account. To put this in perspective, one day's worth of pay under the NREGA is about Rs. 80 and one day's pay for agricultural labour in this region is typically Rs. 50 for men and Rs. 20 for women.

Only 64 of the accounts (or 34% of the total accounts opened) were explicitly identified by account holders as zero minimum balance accounts. 100% of the account holders did not believe they could write cheques for their accounts. In over 50% of the cases, it took between a week and fifteen days between application and account opening.

In terms of opening accounts, the financial inclusion drive aims to open accounts at the doorstep for unbanked households. In fact, while a majority of the households applied for the accounts at their homes, 39% also applied for these accounts at banks. It is not clear whether or not the latter had the opportunity to open accounts at home. Passbook delivery at home and pickup at banks by new account holders are equally common.

Since information regarding No Frills Accounts is sparse, even amongst those who know of it, it is difficult to tell whether or not these new accounts were meant to be No Frills Accounts or not. However, the sample presented above is for first time account holders, a majority of whom received assistance under NREGA. Thus, if these accounts were opened during the duration of the drive, a majority of them should have been No Frills Accounts.

Furthermore, there is some anecdotal evidence to show that when individuals open accounts they are asked to put some money in the account as a token, even in the case of No Frills Accounts.

#### **4.18.2. Savings Behaviour**

Questions about savings behaviour elicited the fact that 87% of households in our survey save. Of those who save, majority save on a weekly basis. The primary reasons for which poor households save are firstly, to face uncertainties in the future related to health and employment and secondly, for the future. While 'future' is not a very concrete idea (especially since education and wedding expense can also be thought of as future

expenses), conversations with households revealed a concern for the future of their children as an important motivation to save. This shows that households value savings, not simply for a stated purpose, but also intrinsically as something that will be of use to them in the future.

Informal savings mechanisms, such as savings at home in a tinbox or in a purse were significant in our survey. 66% of the households saved in a tinbox and 85% saved cash elsewhere in the house. 67% of households reported having a formal or semi-formal savings account such as bank accounts, post office savings accounts, savings with an MFI, an SHG or a neighbourhood group or chit funds. The percentage of households with each of these formal and semi-formal savings accounts is given below. About 160 (32%) respondents did not have access to any formal or informal savings accounts, in spite of the drive.

This table demonstrates that in our respondents, the prevalence of bank accounts is lower than the prevalence of SHG savings groups. We will restrict discussion henceforth to the accounts highlighted in the table above, that is, to Bank Accounts and to SHG groups, since they are the two most common forms of savings accounts.

About 75 of the bank accounts were older than 3 years and those respondents have been taken out of the analysis presented below



since the goal of the study is to look at new users of bank accounts rather than old users.

What the table above shows is that even though SHG and Bank Accounts are almost evenly present in our sample size, SHG membership clearly has a longer standing tradition, based on the fact that over 50% of the account was opened only within the last year.

Meanwhile, over three quarters of the SHG accounts were opened over three years ago. While bank accounts were the most common savings account that the respondents owned, the data shows that these accounts were primarily used to receiving government assistance. 95% of households surveyed indicated that they do not make regular savings in this account. The top reason being that these accounts are used to receive government assistance, closely followed by the perceived lack of ability to save. On the other hand, SHG group members overwhelmingly save at least Rs. 10 every week.

#### **4.19 Discussion of Results**

While financial inclusion is no doubt a laudable goal, the results from this study demonstrate the expense and the enormous logistical difficulties of managing an inclusion drive in a district as vast as Gulbarga. While conversations with bank officials show their commitment to following RBI guidelines, they also reveal widespread scepticism regarding the efficacy of these guidelines.

Thus, the drive has not wholly adhered to the spirit behind offering unbanked households bank accounts. There is a need to do a cost benefit analysis of these accounts. Is it really a commercial opportunity for banks? Given the low usage of these No Frills Accounts, one would intuit that this is not the case. If the benefits to households from owning a bank account are greater than the costs, there is certainly a case to be made for them, even if it is not economically viable for banks. However, our data reveals that the relevance of these accounts in the financial lives of households is extremely minimal.

The data presented above reveals that only those who received assistance under NREGP knew about the accounts and had in fact opened any No Frills Accounts. Does this mean that no other No Frills Accounts were opened? It is possible that other accounts were opened. But as seen from the study, while households understand the significance of saving to face future economic shocks and indeed, do save for such unforeseen events, households do not save in their bank accounts. Given the lack of usage and understanding of a bank account, it is possible that households that previously opened accounts under the drive, do not remember doing so at the present time. Gulbarga suffers from low levels of education and economic development.

Given these circumstances, financial literacy training is a must to go along with the provision of a bank account. Regarding the implementation of the drive, there are several inconsistencies that

emerge. For instance, newspaper advertisements in a largely illiterate district may not be the best way to disseminate information regarding the financial inclusion drive. The study shows that several families were able to open more than one No Frills Account. While this number was not significant, it is still worth mentioning. Information regarding the drive has not seemed to have filtered down to the target population. As in the last paragraph, this may not be because banks didn't try, it may simply be that bank accounts are not relevant to the lives of unbanked households and thus, they did not pay attention.

Furthermore, the data demonstrates that all the accounts opened were opened in order to receive assistance under NREGP, rather than under the financial inclusion drive. While NREGP accounts are also No Frills Accounts with zero minimum balance in principle and banks incorporate it within the aegis of the financial inclusion drive, these accounts are clearly earmarked for receiving government assistance, rather than aiding non-bank clients to develop banking habits.

It comes as not surprise that the drive has not inculcated any significant relationships between banks and their new clients. Banks have been asked to open bank accounts for households who are excluded from all possible avenues of bank linkage including SHG bank linkage. It is important to consider why these households are not part of SHGs and what this implies about their risk profile. Conversations with households that do not have SHG

members reveal that the primary reason for not joining is the inability to save the requisite Rs. 10 on a weekly basis. In other words, bank accounts are being extended to families that do have savings habit. While these families need a safe place to save as well, a bank account, given its cost to the bank and low returns from zero minimum balance account, may not appropriate for them.

This data also reveals a few inconsistencies that are unexpected at first glance. Many households indicate that one of the reasons they have no bank accounts is because they do not make enough money to save. In spite of this, when asked if they want a bank account, a significant number indicate that one of the reasons to own a bank account is to be able to save money.

Similarly, an overwhelmingly majority of households indicate that they save on a weekly basis. What causes this seeming dissonance in opinions? Informal conversations with respondents reveal that these households think of bank accounts as places to save larger amounts of money, while they tend to save smaller amounts to the tune of Rs. 10-20 per week.

What this study shows is that low income households can and do save small amounts either in their house or in Self Help Groups. Households that were most successful in saving were families that were part of SHGs. The average cost of traveling to a bank in Gulbarga block was about Rs. 22. Most families belonging to SHGs save approximately Rs. 10-15 every week. Thus, using this

as a proxy for all families, even if households do save in banks, we find that for households which require a micro-savings product, a bank account may not always be the most cost effective solution.

#### **4.20 Limitations of the study:**

1. The data collection was carried out for the period of one year i.e., 2008-09 which may prove to be a limitation of the study.
2. The sample size was also taken on the basis of stratified random sampling which may prove to be a limitation as the population size was more.
3. The BPL family was decided on the basis of their ration card data. If their income has increased in the one year period, they can be considered as above poverty line which will again be the limitation.
4. The rural population has been covered for the research. The behaviour of urban and rural population may not be the same which can also prove as a limitation.

**Chapter 5**

**CONCEPTS AND THEORY**

## Chapter 5

### Concepts and Theory

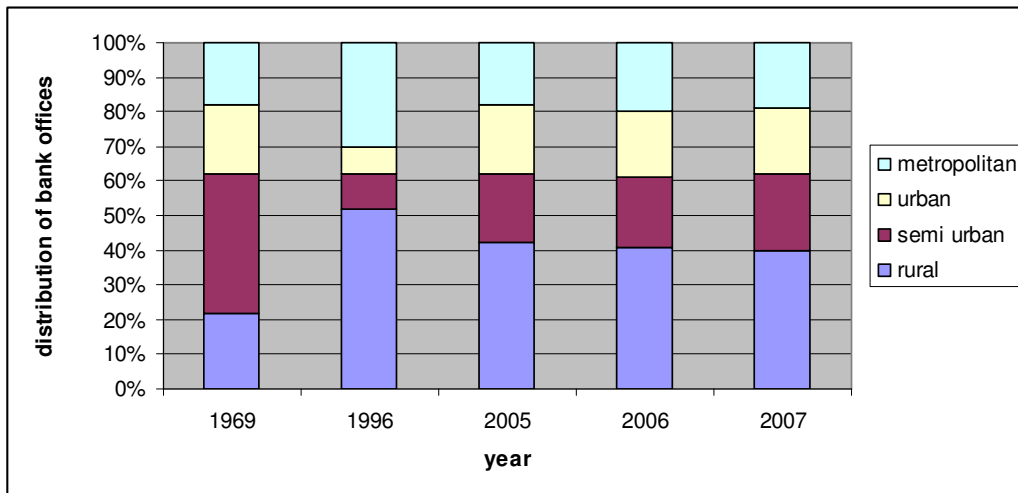
#### **5.1 Financial Inclusion in India – Statistics**

Financial inclusion in developing economies is different than that of developed economies. In latter where inclusion is a minority, in former it could be a majority. Elaine Kempson in his research (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.

**! All India level:** Figure 1 shows that rural and Semi-urban offices constitute a majority of the Commercial Bank offices in India. Rural bank offices as a % of total have increased from 22% in 1969 to 41% in 2007. This is mainly because of the inclusive focus of the policymakers mentioned above. However, that is just one part of the story. If we look at figure 2, it can be seen that bulk of the deposits received and credit allocated is to the urban and metropolitan areas. In fact, the share of rural and semi-urban in deposits and credit has been declining. Table 1 provides further clarity providing a break-up of the deposit accounts. Both the

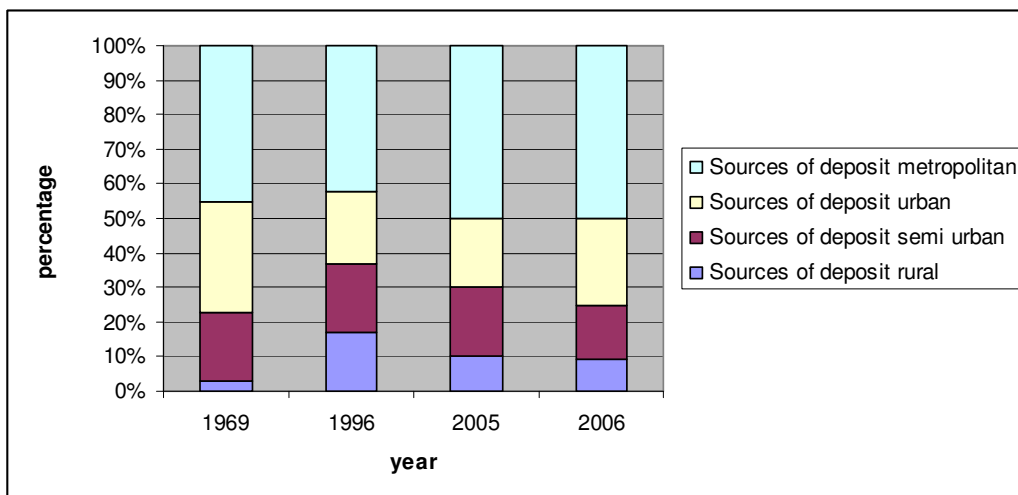
deposit and credit accounts are lower in rural households than urban households. Hence despite the rural-push, the rural population has not come forward and avail even basic banking services (a fact mentioned in the section above - Rationale for Financial Inclusion).

**Figure: 5.1.1 Distribution of Bank Offices in India**



Source: Rakesh Mohan, RBI, IDBI Gilts Ltd

**Figure: 5.1.2 Sources of Deposits (in %)**

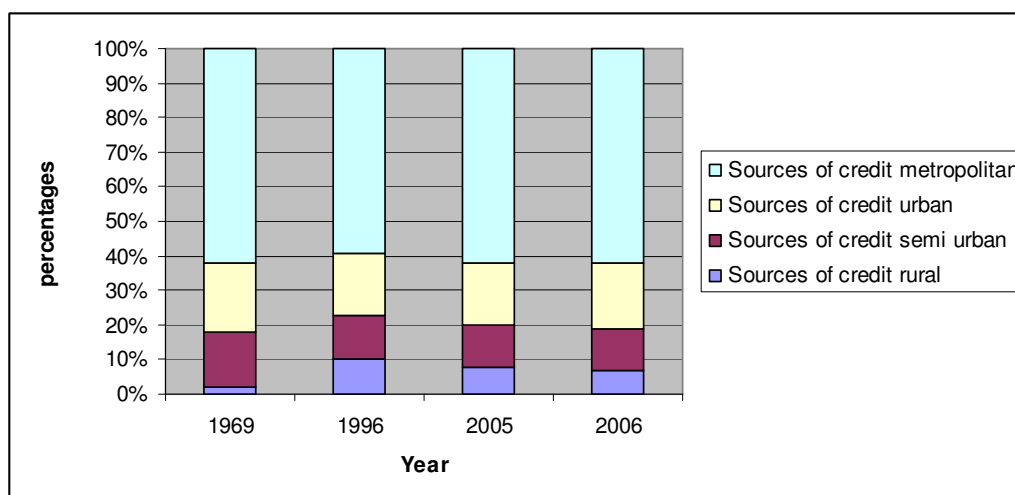


Source: Rakesh Mohan, RBI, IDBI Gilts Ltd



**Regionwise:** Another way to analyse the financial inclusion is to see the region-wise distribution of the bank offices, credit and deposit ratios. Table 2 shows the population per office has increased in the rural areas of all the regions indicating lower financial deepening in rural areas. In urban areas the population per bank office has declined in all the regions except Western region.

**Figure 5.1.3: Sources of Credits (in %)**



Source: Rakesh Mohan, RBI, IDBI Gilts Ltd

**Table: 5.1.4 Number of deposit and credit accounts in Scheduled Commercial Banks (% of number of households)**

		1981	1991	1996	2001	2004	2005
Current Accounts	Rural	3.6	5.5	4.7	4.9	4.4	4.6
	Urban	15	23.4	24.1	19.2	17.5	18.3
Savings Accounts	Rural	59.6	137	129.8	123.3	126.8	131.5

	Urban	135.5	243.7	249.7	197.4	206.5	213.1
Term Deposits Account	Rural	22.9	41.8	45.5	52	48.3	45.7
	Urban	74.6	96.9	105	105.6	113.4	104
Credit Accounts	Rural	18	44.3	36	26.5	28.7	32.2
	Urban	15.1	29.9	27.1	28.4	42.5	50.2

*Source: Rakesh Mohan, RBI, IDBI Gilts Ltd.*

5.2 Despite the increase in financial deepening in the urban regions, the savings account per hundred persons has declined in all regions. Contrastingly, in the rural regions, savings account per hundred persons has increased in North-East, Central and Southern Regions, indicating banks in these rural regions have led to more financial inclusion than their counterparts in other rural regions and all urban regions. In Credit accounts per 100 persons, the situation is no different with the figure falling in all regions except Southern and Western regions in Urban India.

**Table: 5.2.1 Financial Inclusion: Region wise**

	1991	2005	1991	2005	1991	2005
	Total		Rural		Urban	
Population Per Office						
Northern	11,002	12,257	10,771	13,043	11,571	10,941
North East	16,870	26,227	16,335	22,158	21,169	20,318

<b>Eastern</b>	<b>16,441</b>	<b>19,913</b>	<b>16,402</b>	<b>21,208</b>	<b>16,614</b>	<b>15,759</b>
<b>Central</b>	<b>15,786</b>	<b>19,518</b>	<b>15,153</b>	<b>20,264</b>	<b>18,745</b>	<b>17,297</b>
<b>Western</b>	<b>12,771</b>	<b>14,618</b>	<b>12,579</b>	<b>15,526</b>	<b>13,108</b>	<b>13,472</b>
<b>Southern</b>	<b>11,932</b>	<b>12,328</b>	<b>11,276</b>	<b>12,372</b>	<b>13,811</b>	<b>12,243</b>
<b>All- India</b>	<b>13,711</b>	<b>15,680</b>	<b>13,462</b>	<b>16,650</b>	<b>14,484</b>	<b>13,619</b>
<b>Deposits: Number of savings accounts per 100 persons</b>						
<b>Northern</b>	<b>40</b>	<b>38.3</b>	<b>30.1</b>	<b>29.7</b>	<b>62.6</b>	<b>55.4</b>
<b>North East</b>	<b>17.8</b>	<b>17.6</b>	<b>16.1</b>	<b>16.4</b>	<b>28.4</b>	<b>24.2</b>
<b>Eastern</b>	<b>21.8</b>	<b>20.5</b>	<b>17.7</b>	<b>16.9</b>	<b>40</b>	<b>36.1</b>
<b>Central</b>	<b>23.8</b>	<b>24.5</b>	<b>21</b>	<b>22.1</b>	<b>34.7</b>	<b>32.9</b>
<b>Western</b>	<b>35.5</b>	<b>32.5</b>	<b>24.7</b>	<b>23.8</b>	<b>53.8</b>	<b>45.2</b>
<b>Southern</b>	<b>37</b>	<b>37.6</b>	<b>34.6</b>	<b>35.5</b>	<b>42.7</b>	<b>41.8</b>
<b>All- India</b>	<b>29.9</b>	<b>29.2</b>	<b>24.5</b>	<b>24.4</b>	<b>45.6</b>	<b>41.6</b>
<b>Credit: Number of credit accounts per 100 persons</b>						
<b>Northern</b>	<b>6.4</b>	<b>5.7</b>	<b>6.6</b>	<b>5.1</b>	<b>5.9</b>	<b>6.7</b>
<b>North East</b>	<b>4.4</b>	<b>3.3</b>	<b>4.4</b>	<b>3.2</b>	<b>4.4</b>	<b>3.9</b>
<b>Eastern</b>	<b>6.6</b>	<b>4.2</b>	<b>7.2</b>	<b>4.2</b>	<b>4.3</b>	<b>4.3</b>
<b>Central</b>	<b>5.5</b>	<b>4.3</b>	<b>5.8</b>	<b>4.2</b>	<b>4.4</b>	<b>4.4</b>
<b>Western</b>	<b>5.7</b>	<b>7.5</b>	<b>6.2</b>	<b>4.2</b>	<b>4.8</b>	<b>12.2</b>

Southern	11.8	14.2	13.6	12.7	7.6	17.4
All- India	7.3	7	7.9	6	5.5	9.8

*Source: Rakesh Mohan, RBI, IDBI Gilts Ltd.*

### **5.3 Access to Banking Services and Poverty Reduction:**

#### **5.3.1 A State-wise Assessment in India**

A person may be said to have access to financial services if he or she is able to use formal or semiformal financial services in an appropriate form at reasonable prices when such services are required (Fernando, 2007). The access to finance in developing countries has been considered as a necessity just like safe water or primary education (Beck & de la Torre, 2006; Leeladhar, 2005). In developed countries, financial services covers almost majority of the population (Peachy and Roe, 2004). In developing countries only 20 per cent population has access to formal financial services (World Savings Banks Institute, 2004). A large section of population remains financially excluded and belongs to low-income households. With the growth in urbanization and the policy discretion by the central banks access to finance in both urban and rural areas are increasing rapidly in many developing countries.

Measuring access to finance is seemingly difficult because of very nature of reveal preference choice of an individual towards financial services. In less developed countries it has been widely practiced that the majority amount of finance is not percolated to people who have the actual need of it. Financial inclusion is the

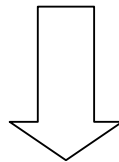
availability of banking services at affordable costs to the disadvantaged section of population. Financial inclusion emphasizes access of a host of financial services, which includes savings, loans, insurance, credit etc that are supposed to help the poor people out of poverty. The most important part of financial services in a region is typically measured by number of people who have access to bank accounts (Beck & De la Torr, 2006; Littlefield et al, 2006). This is because bank accounts enables people to perform important financial functions like access to savings schemes, access to credit, taking loan, insurance, money transfer etc. Thus, bank accounts determine access to many other financial services (Mohan, 2006). Internationally, having a current or saving account on its own is not regarded as an exact indicator of financial inclusion. In developed countries, financial inclusion is generally related to the issues about social exclusion and welfare. In India, the basic concept of financial inclusion is the percentage of adult population having bank accounts. Only 41 per cent of adult populations do not have access to banking services. The coverage of financial services in terms of banks accounts are 39 per cent for rural areas, and 60 per cent for urban areas.

The reasons behind the dismal number of bank accounts are two fold: One can be addressed from the demand side and the other has its origin from the supply side. Prevailing inequality is the fundamental reason for lower growth in bank accounts in India. People working in the unorganized sectors or even in the

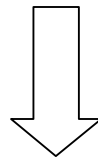
agricultural sector do not have sustainable as well as surplus level of income so that they can even think of about opening a bank account. Another reason behind the low demand for organized financial services in the rural area is the lack of investment opportunity in rural India.

From the supplier point of view, directed credit is always considered as a leakage to the banking business. Further, people struggling to meet their both ends do not have any mortgage holding so that they can proceed for loan from organized financial systems. The supply side disturbance can be solved with the help of active government policy, even within a short span of time. However, the demand side problems are acute and chronic in nature. It requires structural change of the economy. The following flow chart explains the demand-side barriers of the growth in finance services.

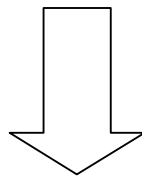
**Low level of income/Poverty**



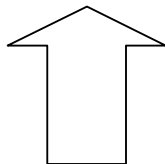
**High Level of consumption**



**Low level of saving**



Low Demand for Banking Services



**Lack of Investment opportunity**

**Again financial exclusion can acts as a fundamental source of poverty. This implies that poverty causes low demand for organized financial system and financial exclusion causes poverty. Therefore, there is a bidirectional cause and effect relationship between poverty and financial inclusion. In either ways people needs access to credit and necessary financial services, which are best enable through a bank accounts. In India, financial inclusion is confined to ensuring bare minimum access to savings account without frills to all.**

#### **5.4 Low demand for banking services**

**Low level of saving**

**Low level of income / poverty**

**High level of consumption**

**Lack of investment opportunity**

**Alleviating poverty has long been the primary goal of the policy makers in India. The situations of poverty become more deplorable if it is adjusted for international yardstick of poverty measurement. According to recent World Bank estimate, India had 456 million people or about 42 percent of the population living**

below the new international poverty line of 1.25 US dollar per day. The number of Indian poor contributes 33 percent of the global poor, which is pegged at 1.4 billion people. If the measurement of the international poverty line is slightly increased from the 1.25 US dollar a day to 2.00 US dollar a day then the scenario is even further disheartening. Based on that measurement, India had 828 million people, or 75.6 percent of the population living below the poverty line surpassing the Sub-Saharan Africa, considered the world's poorest region, with 72.2 percent people living without 2 US dollar a day. This clearly demonstrates the mammoth inequality prevailing in India even after the inclusive growth policy commitment by various governments following a number of five-year plans. Poverty hit people who are highly concentrated in rural areas with limited access to financial services. Global microfinance campaign has helped changing lives of poor.

In India, an estimated 410 lakh<sup>1</sup> poor households have access to formal banking system under the SHG-Bank Linkage Programme. In this context, the present study concerns with the drive towards financial inclusion and the changes in poverty level across different states in India. This apart, the study provides an insight into the demographic decomposition of scheduled commercial bank activities regarding the growth of savings and credit accounts. Emphasis is given to investigate the changes observed in different periods. In addition, the growth of savings and credit has also been investigated.



## **5.5 Background of financial inclusion in India**

After independence rural cooperative banks were established in an attempt to disseminate financial services among marginalized sections of population. The basic intention was to provide more credit to agriculture and small-scale industries.

However, the entire plan failed to materialize as majority of the bank credit was mobilized towards big enterprises. In order to combat this problem, in 1969 banks came under the ownership of the government in two phases (14 banks in 1969 and 6 banks in 1980). The bank nationalization was marked a paradigm shift in the banking sector.

Under this arrangement, at least 40 per cent bank lending had to be extended in the priority section and 25 per cent of these loans had to be extended to weaker sections within priority section. Other feature of nationalization includes interest rate controls on credit upto 2 lakhs, interest subsidy, capital subsidy schemes like IRDP, SGSY etc. The nationalized banks and regional rural banks (RRBs) control over 73 per cent of all commercial banking assets. Since bank liberalization, the distribution of financial services in the country has been quite extensive compared to other developing economies.

## **5.6 Extent of financial exclusion**

The basic objective of financial inclusion is to reach poor and disadvantage section of population. According to the latest NSSO

data, almost half of the farmer households do not have access to credit, either from institutional or non-institutional sources.

Organized bank branches specially the nationalized commercial banks covered only the 27 per cent of total farm households. As per NSSO survey 2003, financial inclusion was only 49 percent in 18 states. Andhra Pradesh ranked at the top with 75 per cent inclusion. The financial inclusion scenario of the North-Eastern states is very dismal compared to the industrially advanced states. The poorer a state, the greater is the level of financial exclusion (Rangarajan, 2007). The extent of financial exclusion from credit market is higher. According to NSSO data 51.4 per cent households do not have access to credit. As per Rangarajan Committee's report on Financial Inclusion 2008, financial exclusion is widespread which varies widely across regions, social groups and asset holdings. The problem of financial inclusion is the resurgence of moneylenders as the prominent source of credit to the rural population. Thus, extra initiatives must be taken in the form of rural counseling centers to advise people about financial products, information dissemination, setting up Rural Credit Bureau, increasing financial education and micro insurance products.

## **5.7 Demographic Decomposition of Growth of Banking Sector**

### *1 Growth in bank accounts*

Commercial banks contain over half the deposits in India. The overall growth in saving bank accounts was 10.22 per cent per

annum during the pre reform period, the highest of the three sub-periods. (Table 1). This is because of the bank nationalization and emphasis on priority sector lending. However, the growth fell drastically to 1.42 per cent during reform period. The annual growth increased marginally to 2.94 per cent in the post reform period. During pre-reform period rural area achieved the annual growth in bank accounts of 13.81 per cent, followed by urban areas (9.98 per cent), semi urban areas (9.31 per cent) and metropolitan areas (8.2 per cent). Reform period was the worst in terms of the growth in bank accounts as the overall growth in bank account fell drastically to 0.87 per cent per annum, while metropolitan areas witnessed highest growth of 2.66 per cent per annum. In the post reform period, the growth in bank accounts was urban centric, as the highest growth in bank accounts was achieved in metropolitan areas (5.38 per cent), followed by urban areas of 3.08 per cent per annum. The growth in bank accounts in rural and semi-urban areas was 2.06 per cent and 1.8 per cent respectively. This is because of the emergence of a vibrant middleclass population in urban and metropolitan areas.

**Table 5.7.1: Growth in deposit bank accounts by population groups**

	Pre- reform Period (1980-90)	Reform Period (1991-99)	Post reform Period ( 2000-2007)

Rural	12.99	0.87	2.06
Semi-Urban	9.31	1.53	1.80
Urban	9.98	0.95	3.08
Metropolitan	8.2	2.66	5.38
Total	10.22	1.42	2.94

**Source:** Basic Statistical Returns of Scheduled Commercial Banks in India.

**Note:** Growth rates are compound annual growth rates

The annual growth in credit accounts witnessed significant annual growth in the pre reform period (12.16 per cent). The growth was highest in rural areas (14.33 per cent), followed by urban area (10.92 per cent), semi-urban area (9.99 per cent) and metropolitan area (9.96 per cent). However, the overall growth in credit accounts went into negative territory during reform period. Only metropolitan area achieved positive growth of 3.63 per cent per annum. The situation was reversed in the post reform period. The growth in credit accounts recovered into positive territory; with the overall growth rate was 9.16 per cent per annum. Metropolitan areas achieved outstanding growth of 24.06 per cent during post reform period, the highest among the subgroups, while rural area witnessed the slowest growth (3.01 per cent).

**Table 5.7.2: Growth in credit accounts by population groups**

	Pre- reform Period	Reform Period	Post reform Period
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	(1980-90)	(1991-99)	( 2000-2007)
Rural	14.33	-3.82	3.91
Semi-Urban	9.99	-2.09	6.79
Urban	10.92	-2.77	8.84
Metropolitan	9.96	3.63	24.06
Total	12.16	-2.58	9.16

**Source:** Basic Statistical Returns of Scheduled Commercial Banks in India.

### ***Growth in volume of bank credits***

The overall growth rate of credit volume of commercial bank was highest in the post reform periods (22.59 percent). This is because of the increasing outreach and functional diversification of the scheduled commercial banks. During the pre-reform the growth was 16.81 per cent, while reform period witnessed a marginal decline of growth to 15.47 per cent. This is due to the growth in service and manufacturing sector bypassing the agricultural sector just after the economic reform. As far as geographical distribution of credit is concerned, except metropolitan area the growth in bank credits has declined. Rural credit was severely neglected during the reform period compared to pre reform period. However, the growth in rural credit recovered in the post reform period. However, the credit growth in rural areas has recovered in the post reform period. Growth in bank credit in metropolitan areas increased gradually during the different periods. Urban and semi-urban group of people enjoyed higher

volume of credit in the post-reform reform period compared to pre reform and reform periods.

**Table 5.7.3: Growth In credits by population groups**

	Pre- reform Period (1980-90)	Reform Period (1991-99)	Post reform Period ( 2000-2007)
Rural	24.57	9.2	22.15
Semi-Urban	17.35	12.9	18.56
Urban	16.79	12.23	23.14
Metropolitan	14.09	20.16	23.42
Total	16.81	15.47	22.59

*Source:* Basic Statistical Returns of Scheduled Commercial Banks in India.

***Growth in bank deposits***

The growth in bank deposits of scheduled commercial banks remained constant in both pre-reform and reform period, grown at around 17 per cent annually. Even the banking sector reform has failed to increase the relative amount of deposits although the absolute amount of deposits has increased. Growth of bank deposit in rural area has suffered a lot during the post-reform period. The growth bank deposits gradually decreasing during various phases of reforms, 20.2 per cent in the pre reform period, 15.84 per cent in the reform period and 10.75 per cent in the post reform period. This is because of the reduction of the per capita income of rural India in the pre-reform period. In contrast, the

growth in bank deposits remains higher in urban areas for the entire period of the study. On the other hand, metropolitan areas achieved the highest growth in bank deposits during post reform periods. During pre reform period the bank deposit in metropolitan areas grew at 17.79 percent per annum, while the growth was almost same during the reform period (17.61 per cent).

**Table 5.7.4: Growth in bank deposits by population groups**

	Pre- reform Period (1980-90)	Reform Period (1991-99)	Post reform Period ( 2000-2007)
Rural	20.2	15.84	10.75
Semi-Urban	16.81	16.12	11.34
Urban	18.07	15.77	15.28
Metropolitan	17.79	17.61	22.45
Total	17.97	16.62	17.43

*Source:* Basic Statistical Returns of Scheduled Commercial Banks in India.

## **5.8 Bank outreach and poverty**

### **Growth in Bank Accounts: State-wise Scenario**

State wise growth in bank accounts suggests that during the post reform period Andhra Pradesh achieved highest growth of 5.69 per cent in rural areas, followed by Kerala (3.40 per cent) and Gujarat (9.23 per cent), constituting top three states in India.

States where the negative growth in bank accounts observed are Chandigarh (-0.96 per cent), Delhi (-0.94 per cent), Andaman & Nichobar (-0.69 per cent) and West Bengal (-0.01 per cent). The growth in bank outreach in urban area is much better in urban areas. The highest growth is observed in Jammu and Kashmir of 6.61 per cent. Pondicheery ranked second with 6.07 per cent growth rate in bank accounts, followed by Andhra Pradesh (5.93 per cent) and Gujarat (5.33 per cent) witnessed significant growth rates.

Only West Bengal, among the urban areas witnessed negative growth in bank accounts of -0.01 per cent.

### **5.9 Changes in Poverty: State-wise Scenario**

Changes in percentage of population living below poverty line are presented in Table 5.

The differences in percent of population below poverty line were taken between 1999-2000 and 2004-05 for states and union territories. The data was collected from Planning Commission and NSSO3. There are two types of measurement of below poverty line population in 2004-05, uniform reference period and mixed reference period. The present study uses uniform reference period calculation. At all India level the level of below poverty line population was 26.1 per cent in 1999-2000 which increases to 27.5 in 2004-05. State wise scenario suggests that during this period population living below poverty line decline significantly by 28.15 per cent, followed by Madhya Pradesh (22.43 per cent), Nagaland



(20.07 per cent) and Meghalaya (-16.57 per cent). The percentage of population living below poverty line increased substantially was Punjab (40 per cent), Daman and Deu (28.76 per cent) and Karnataka (20.26 per cent).

**Table 5.9.1: Ranking of states in terms of change in poverty ratio, growth in bank accounts (Rural Areas)**

Ranking of States in terms of Change in poverty		Ranking of States in terms of growth in Deposit accounts	
State/Union Territory	Change in poverty level between 1999-2005	State/Union Territory	Growth in Bank accounts
Delhi	-6.5	Andhra Pradesh	5.69
Gujarat	-5.93	Kerala	3.40
Maharashtra	-5.88	Gujarat	2.93
Haryana	-5.33	Rajasthan	2.92
Rajasthan	-4.96	Madhya Pradesh	2.79
Goa	-4.05	Jammu & Kashmir	2.78
Kerala	-3.82	Haryana	2.77
Karnataka	-3.42	Orissa	2.75
Himachal	-2.76	Bihar	2.62

Pradesh			
Punjab	-2.75	Pondicherry	2.33
Pondicherry	-2.35	Himachal Pradesh	1.83
Andaman & Nicobar	-2.35	Karnataka	1.71
Tamil Nadu	-2.25	Maharashtra	1.67
Uttar Pradesh	-2.18	Uttar Pradesh	1.44
Chandigarh	-1.35	Punjab	1.23
Jammu & Kashmir	-0.63	Goa	0.25
Andhra Pradesh	-0.15	Tamil Nadu	0.08
Madhya Pradesh	0.16	West Bengal	-0.01
Orissa	1.21	Andaman & Nicobar	-0.69
Bihar	2.2	Delhi	-0.94
West Bengal	3.25	Chandigarh	-0.96

Note: Selection of states is dependent on availability and comparability of data.  
 Growths are compound annual growth rates, are measured from 2000-2007.

**Table 5.9.2: Ranking of states in terms of change in poverty ratio, growth in bank accounts (Urban Areas)**

Ranking of States in terms of Change in poverty		Ranking of States in terms of growth in Deposit accounts	
State/Union Territory	Change in poverty level between 1999-2005	State/Union territory	Growth in Bank accounts
Rajasthan	-13.05	Jammu & Kashmir	6.61
Karnataka	-7.35	Pondicherry	6.07
Jammu & Kashmir	-5.92	Andhra Pradesh	5.93
Delhi	-5.78	Gujarat	5.33
Maharashtra	-5.39	Orissa	4.93
Haryana	-5.11	Karnataka	4.71
Madhya Pradesh	-3.66	Kerala	4.54
Bihar	-1.69	Tripura	4.53
Orissa	-1.47	MadhyaPradesh	4.36
Andhra Pradesh	-1.37	Rajasthan	4.19
Punjab	-1.35	Tamil Nadu	4.19
Pondicherry	-0.09	Haryana	3.95
Tamil Nadu	-0.09	Bihar	1.91
West Bengal	0.06	Delhi	1.83

Kerala	0.07	Punjab	1.65
Uttar Pradesh	0.29	Uttar Pradesh	1.61
Gujarat	2.59	Maharashtra	1.45
Tripura	4.17	West Bengal	-0.01

Note: Selection of states is dependent on availability and comparability of data.

Growths are compound annual growth rates, are measured from 2000-2007

### **5.10 Growth in Bank Accounts and Changes in Poverty: A Comparison**

Table 6 and 7 compares the state-wise growth in bank accounts and the percentage changes in below poverty line population. States are ranked in terms of their growth in bank accounts and changes in below poverty line population in both rural and urban areas. In rural areas, the top ten states in terms of reduction of below poverty line population are Delhi, Gujarat, Maharashtra, Haryana, Rajasthan, Goa, Kerala, Karnataka, Himachal Pradesh and Punjab. Among them Kerala, Gujarat, Rajasthan and Haryana observed the highest growth in bank accounts (See Table 6). In urban areas, the highest change in below poverty line population observed in Rajasthan, while J&K observed highest growth in bank accounts. Jammu & Kashmir, Andhra Pradesh, Orissa, Madhya Pradesh and Rajasthan included among the top states in terms of reduction in poverty between 1999-2000. In rural areas,

high growth in bank accounts was accompanied by reduction in below poverty line population in Kerala, Gujarat, Rajasthan and Haryana. However, in urban areas high growth in bank accounts was accompanied by higher reduction in below poverty line population was achieved in Jammu & Kashmir, Andhra Pradesh, Orissa, Madhya Pradesh and Rajasthan. That is, for other states, the growth in bank accounts is not accompanied by the reduction in below poverty line population across various states. Table 7 presents the correlation between changes in poverty and the growth in bank accounts in both rural and urban areas. Both these variables are negatively correlated, that is growth in bank accounts is accompanied by reduction in poverty. However, the strength of association is insignificant. It is essential to ensure social sustainability of financial inclusion programs. Drive towards financial inclusion should accompanied by support programs which catalyze employment opportunities. Targeted support services could provide economic empowerment, improved earnings and reduced vulnerability. Thus, inclusive policies are required to make financial inclusion as a successful poverty reduction strategy.

**Table 5.10.1 : Spearman rank correlation between changes in poverty and growth in bank accounts**

Area	Correlation Coefficient	t-value
Rural	-0.007	0.975

Urban	-0.079	0.739
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**Note: Both the values of correlation coefficient are not significant compared to the t value.**

**Financial inclusion is the availability of banking and financial services at affordable costs to the disadvantages section of population. Financial services comprise of savings, loans, insurance, credit, payments etc, which are generally provided through banks. The most important part of financial services in a region is typically measured by number of people who have access to bank accounts. The present study investigates the banks outreach among various section of population in the form of savings and deposit accounts during different reform periods. This apart, stage wise scenario of below poverty line population is compared financial inclusion. The total study period (1980 – 2007) are divided into three sub periods – pre reform (1980-1990), reform period (1991-1999) and post reform period (2000-2007). The result shows that reform period was the worst in terms of the growth in bank accounts. Rural area fared better in terms of deposit accounts during pre reform period, while during post reform period highest growth in bank accounts observed in metropolitan areas. As far credit growths of commercial banks are concerned rural credit was severely neglected during the reform period, was revived in the post reform period, but failed hold the growth achieved in the pre-reform period. During post reform period highest growth in bank accounts is observed in**

metropolitan areas due to the growth in service and manufacturing sector, bypassing the agricultural sector just after the economic reform.

In rural areas, high growth in bank accounts was accompanied by reduction in below poverty line population in Kerala, Gujarat, Rajasthan and Haryana. However, in urban areas high growth in bank accounts was accompanied by higher reduction in below poverty line population was achieved in Jammu & Kashmir, Andhra Pradesh, Orissa, Madhya Pradesh and Rajasthan. That is, for other states, the growth in bank accounts is not accompanied by the reduction in below poverty line population across various states. Thus, state wise growth in bank accounts and corresponding poverty scenario indicates weak association between them. Thus, covering maximum number of people under banking services and providing credits without developing inclusive financial systems has failed to lift people above poverty line. As a poverty reduction strategy, developing inclusive financial systems should be given priority, which is financially and socially sustainable.

## **CHAPTER- 6**

### **Micro Finance Initiatives in India**



## CHAPTER- 6

### Micro Finance Initiatives in India

#### **6.1 Microfinance Institutions in India:**

##### **Enabling Access to Financial Services**

Microfinance institutions are expected to play a significant role in facilitating socially and economically poor households to access financial services, not credit alone, and to improve the standard of living in India where around 70 million households are poor. MFI s are uniquely positioned for reaching out to the poor. Many of them operate in a limited geographical area, have better understanding of the issues specific to the poor, enjoy greater acceptability amongst the poor and have flexibility in operations providing a level of comfort to their clientele.

Microfinance programme in India which began with the formation and nurturing of Self-Help Groups and then linking them with banks in 1992, can be regarded as the most potent initiative for delivering financial services to the poor in a substantial manner. SHG-bank linkage programme is growing rapidly. The number of SHGs financed increased to 2.925 million as on 31<sup>st</sup> March 2007. Progressively, microfinance programme covered the entire country, more intensively rural areas, through three types of models/ methodologies, viz (i) SHG-bank linkage model (ii) individual banking model and (iii) grameen model.

It is praiseworthy that at the global level Microfinance Information eXchange (MIX), for the purpose of benchmarking, collects data from MFIs around the globe, processes it into standardised reporting formats and crosschecks with audited financial statements, ratings and through third party due diligence reports, if available. Performance results are then adjusted using industry standard adjustments, to eliminate subsidy, guarantee minimal provision for risk and reflect the impact of inflation on institutional performance. This process increases comparability of performance results across institutions along a range of industry standard indicators. MIX Benchmarks 2006 provides comparable data/ratios on 37 MFIs covering their 9 years of operations in India along with 83 MFIs with 8 years of operations in South Asian region. 184 MFIs with 10 years of operations in Asian continent and 704 MFIs with 9 years of operations around the globe. Analyses of data/ratios relate to institutional characteristics, financial structure, outreach indicators, overall financial performance, revenues, expenses, efficiency, productivity, risk and liquidity. Of these 37 MFIs in India, 24 were from southern India followed by 10, 2 and 1 from Eastern, Northern & Western India respectively. While 11 each belonged to SHG-bank linkage and grameen models, 15 belonged to individual banking model.

**Table-6.1.1: MIX Benchmarks 2006- Institutional characteristics**

	India	South Asia	Asia	Global
Number of MFIs	37	83	184	704
Age	9	8	10	9
Total Assets	9,635,690	8,610,183	5,468,125	6,169,918
Offices	45	38	15	11
Personnel	303	248	135	94

Source: India Microfinance Review, 2007 by Micro-Credit Ratings International Ltd India

An attempt is made here to compare the performance of MFIs in India with that of MFIs in South Asian region, Asian continent and around the globe. Recommendations are made on the need for creating enabling environment for healthy and conducive growth of MFIs in India so that poor households can have easy access to financial services( and not only credit) and can reasonably improve their standard of living during the recently launched 11<sup>th</sup> five year plan (2007-12) and subsequent 12<sup>th</sup> Five Year Plan.

Indian MFIs have demonstrated their proven capabilities through efficiency and productivity to serve the largest number of borrowers at the lowest cost per borrower. Enabling environment has, therefore, its significance since many a times genuine claimants for credit are denied the same on the grounds of lack of

creditworthiness or financial viability of the credit proposal. In this context, it is necessary for the MFI to dwell upon what could be done to make the claimants of institutional credit bankable or credit worthy. This would require re-engineering of existing financial products or delivery systems and making them more in tune with the expectations and absorptive capacity of the intended clientele. MFIs may need to redeem poor households from private indebtedness as a good number of poor families are indebted to private moneylenders and this debt has become a grinding mill around their neck. A number of families are born in debt, live in debt, commit suicides or die in debt. MFIs may empower poor families socially, economically and politically such that they can demand as a matter of right, from service providers timely, hasselfree and better services of health, drinking water, sanitation, road, transport, communication, fuel, electricity, libraries, etc which have more importance than credit to shape their lives and lives of their future generations and poor households are enabled to optimally utilise their labour and inherent skills to create wealth and share wealth for their well being.

**Table-6.1.2: MIX Benchmarks 2006- Financial Structure**

	India	South Asia	Asia	Global
<b>Capital/Asset Ratio</b>	4.3%	9.1%	17.5%	25.4%
<b>Commercial Funding</b>	81.1%	63.4%	71.0%	61.0%

<b>Liability Ratio</b>				
<b>Debt/Equity Ratio</b>	<b>11.9%</b>	<b>6.0%</b>	<b>4.0%</b>	<b>2.6%</b>
<b>Gross Loan Portfolio/Total Assets</b>	<b>83.4%</b>	<b>78.5%</b>	<b>73.6%</b>	<b>77.9%</b>

Source: India Microfinance Review, 2007 by Micro Credit Ratings International Ltd India

## **6.2 Comparative Performance**

The study of comparative performance of Indian MFIs with that of other MFIs in South Asia, Asia and around the globe revealed that MFIs in India were cost effective, efficient, productive and managing risks well. These factors contributed to wider outreach (82,562 active borrowers per MFI), significantly minimising cost per borrower (\$11) and portfolio at risk (PAR)>30 days(0.8%) and PAR>90 days (0.2%). MFIs paid considerable attention to developing human resource management and training policy as well as selection of geographical area for establishing offices. The staff of MFIs were by and large from local area, adequately qualified having affinity to serve rural areas, trained and periodically exposed to real field situation through cross country exposure for learning and sharing experiences (study tours, seminars, workshops, conferences etc.). Loan policy focusing on proper identification and selection of eligible borrowers, pre sanction appraisal of client and client proposal, post disbursement supervision and follow up on the end use of credit till it is fully repaid was scrupulously implemented. MFIs were able

to project better image through their staff and clients to establish credibility before commercial banks that have facilitated MFIs to borrow quite sizeable funds for lending.

**Table-6.2.1: MIX Benchmarks 2006- Outreach Indicators**

	India	South Asia	Asia	Global
Number of Active Clients	86,562	44,647	17,583	10102
Percent of Women Borrowers	100%	100%	99.0%	66%
Gross Loan Portfolio	8,648,133	6,478,902	30434180	4,438,677
Average Loan Balance Per Borrower	106	120	149	456
Average Loan Balance Per Borrower/GNI Capita	14.5%	18.1%	20.8%	40.3%

Source: India Microfinance Review, 2007 by Micro-Credit Ratings

International Ltd India

The financial indicators and ratios, embodied in the MIX Benchmarks 2006 of 37 MFIs in South Asian region, 184 MFIs in Asian continent and 704 MFIs around the globe revealed that performance of Indian MFIs was better than that of MFIs in the

region, the continent and around the globe in respect of the following parameters:

- Number of offices (45), personnel employed (303), and total assets(\$96,35,690)
- Commercial funding liability ratio (81.1 percent) and gross loan portfolio to total assets(83.4 percent)
- Number of active borrowers (82,562) and gross loan portfolio (\$86,48,133)
- Return on assets (0.2 percent) which was of course much lower than 0.9 percent at global level and return on equity (18.4 percent)
- Financial self sufficiency (104.1 percent) being marginally lower than 105.7 percent at global level.
- Total expenses ratio (18.3 percent), operating expense ratio (8.8percent), personnel expense ratio (4.6 percent), administrative expense ratio (4.1 percent), and loan loss provision expense ratio (0.9 percent)
- Operating expense to loan portfolio (10.4 percent), personnel expense to loan portfolio (5.3 percent) and cost per borrower(\$11)
- Borrowers per staff member (255) and borrowers per loan officer (350)
- PAR>30 days (0.8 percent), PAR>90 days (0.2 percent), write-off ratio (0.1 percent), loan loss rate (0.1 percent) and risk coverage (61.7 percent).

**TABLE: 6.2.2 MIX Benchmarks 2006- Revenues, expenses, overall financial performance**

Revenues	India	South Asia	Asia	Global
Financial Revenue Ratio	17.7%	17.5%	20.8%	24.7%
Profit Margin	4.0%	1.0%	1.8%	5.4%
Yield on Gross Portfolio (nominal)	21.7%	23.3%	26.5%	30.2%
Yield on Gross Portfolio (real)	15.0%	15.7%	19.1%	22.3%
<b>Expenses</b>				
Total Expense Ratio	18.3%	19.6%	22.0%	24.6%
Financial Expense Ratio	6.7%	6.4%	6.3%	6.3%
Loan Loss Provision Expense Ratio	0.9%	1.0%	1.2%	1.4%
Operating Expense Ratio	8.8%	10.4%	12.4%	15.3%
Personnel Expense Ratio	4.6%	5.9%	6.9%	8.3%
Administrative Expense Ratio	4.1%	4.5%	6.0%	7.0%



Overall Financial Performance					
Return on Assets		0.2%	-0.3%	0.1%	0.9%
Return on Equity		18.4%	0.6%	2.1%	4.0%
Operational Sufficiency	Self	109.8%	107.0%	113.3%	115.4%
Financial Sufficiency	Self	104.1%	101.0%	101.8%	105.7%

Source: India Microfinance Review, 2007 by Micro-Credit Ratings International Ltd India

However, in case of the following parameters, the performance of Indian MFIs was poor as compared to that of MFIs in the region, the continent and the global level.

- Capital Asset Ratio (4.3 percent) and debt to equity ratio (11.9 percent).
- Average loan per borrower (\$106) and average loan balance per borrower/ GNI per capita (14.5 percent)
- Operational self sufficiency (109.8 percent) being marginally higher than 107 percent in the region.
- Yield on gross portfolio (nominal 21.7 percent and real 15 percent) and financial revenue ratio (17.7 percent).
- Financial expense ratio (6.7 percent).
- Average salary/ GNI per capita (2.3 percent).

**TABLE:6.2.3 MIX Benchmarks 2006- Efficiency, productivity, and risk and liquidity**

<b>Efficiency</b>	<b>India</b>	<b>South Asia</b>	<b>Asia</b>	<b>Global</b>
<b>Operating Expense/Loan Portfolio</b>	<b>10.4%</b>	<b>14.3%</b>	<b>17.2%</b>	<b>20.1%</b>
<b>Personnel Expense/Loan Portfolio</b>	<b>5.3%</b>	<b>8.6%</b>	<b>9.85</b>	<b>11.0%</b>
<b>Average Salary/ GNI per capita</b>	<b>2.3%</b>	<b>3.3%</b>	<b>2.8%</b>	<b>4.2%</b>
<b>Cost per borrower</b>	<b>11</b>	<b>16</b>	<b>39</b>	<b>108</b>
<b>Productivity</b>				
<b>Borrowers per Staff Member</b>	<b>255</b>	<b>160</b>	<b>125</b>	<b>112</b>
<b>Borrowers per Loan Officer</b>	<b>350</b>	<b>241</b>	<b>208</b>	<b>216</b>
<b>Risk and Liquidity</b>				
<b>Portfolio at Risk&gt; 30 days</b>	<b>0.8%</b>	<b>1.2%</b>	<b>2.1%</b>	<b>2.8%</b>
<b>Portfolio at Risk&gt; 90 days</b>	<b>0.2%</b>	<b>0.6%</b>	<b>0.7%</b>	<b>1.1%</b>
<b>Write-off Ratio</b>	<b>0.1%</b>	<b>0.6%</b>	<b>0.7%</b>	<b>1.1%</b>
<b>Loan Loss Rate</b>	<b>0.1%</b>	<b>0.5%</b>	<b>0.7%</b>	<b>0.9%</b>
<b>Risk Coverage</b>	<b>61%</b>	<b>80.4%</b>	<b>86.7%</b>	<b>90.1%</b>
<b>Non- Earning Liquid Asset as % to Total assets</b>	<b>5.1%</b>	<b>5.1%</b>	<b>6.1%</b>	<b>6.5%</b>

**Source: India Microfinance Review, 2007 by Micro-Credit Ratings International Ltd India.**

**A report from MIX (December 07) says ‘ Of all countries in the survey, India claimed the most leading spots (14, more than double the number held by any other country) due to high scores in both efficiency and outreach. Several factors boosted India’s position in the rankings; India is home to the greater number of fastest growing MFIs, many of which served large client bases. 10 out of the 14 top ranked institutions served more than 1, 00,000 borrowers. Low transaction cost and small margins also improved the efficiency profile of these MFIs and India leads the global industry in efficient transactions. Relatively low personnel costs and high productivity through group based approaches brought the cost of serving each borrower to less than 3 percent of GNI per capita. Clients also benefited from thin MFI returns. Prevailing interest rates charged by these institutions include narrow profit margins, keeping client costs to some of the lowest in the global industry. On an average, Indian MFIs in the top 100 counted just 1.9 percent net income relative to their loan portfolio, less than half the average of all leading MFIs.**

**Enabling environment needed:**

**While during the last 15 years MFIs including SHG-bank linkage programmes have contributed modestly to serve around 10 percent poor in India out of 70 million, there is a greater need now than before to create an enabling environment so as to facilitate**

most of the poor to access financial services, not only credit, and significantly improve their standard of living during the recently launched five year plan (2007-12). Enabling environment should create a favourable impact through

1. evolving public policies,
2. legislating appropriate regulatory and development authority law
3. making public and private investment in building and strengthening the much needed rural infrastructure
4. seeking full commitment of state governments and publicly elected representatives at village level to implement, in a transparent manner, programmes for the growth and development of poor households involving beneficiary household's participation and
5. Insurers, financial, non financial institutions and business/commercial houses to enshrine growth with social objectives in their mission statements.

Following issues and recommendations call for the creation of enabling environment.

### **6.3 Coverage of poor**

The microfinance programme has been growing rapidly and is estimated to have covered around 20 million clients of which the number of SHG financed accounted for little less than 3 million as on 31<sup>st</sup> March 2007. All microfinance clients are however not poor. An extensive impact study undertaken across 20 non government organisation (NGO) MFIs operating in different parts of India in

2003 and 2004 found that typically, only 35 percent of MFI clients in the country can strictly be classified as poor. Given some 70 million poor families, outreach accounted for just 10 percent of the poor.

Many states with high incidence of poverty have shown poor performance under the programme. National Bank for Agriculture and Rural Development (NABARD) has identified 13 states with large population of the poor, but exhibiting low performance in the implementation of the programme. Besides, the spread of the SHG- bank linkage programme in different regions has been uneven with the southern states accounting for the major chunk of credit linkages. The sample survey of 5.6 million clients in September 2006 showed that around 75 percent were based in South India and another 20 percent in the east. It is thus necessary for MFIs to concentrate to assist extremely poor which include those poor families without any assets, such as landless labourers, tenant farmers, share croppers, oral lessees and those living in desert, drought prone, hilly and tribal areas in particular. The number of MFIs also needs to be increased particularly in 13 identified states, in order to provide financial services to poor families residing in around 7, 00,000 villages.

India has an extensive banking infrastructure comprising a century old cooperative credit structure, 40 years old public sector commercial banks and 32 years old regional rural banks. The cooperatives have over 1, 09,000 retail outlets to provide rural

families easy access to institutional credit in all villages. Moreover, extensive network of around 47,265 rural and semi urban branches of public sector commercial banks and regional rural banks have been allocated a specific number of (5 to 10) villages in order to mobilise savings and credit in a planned way through formulation of Service Area Credit Plan for each branch. As these outlets and branches have already established identity, rapport and relationship with rural families in their service area and some of them have already been providing microfinance through linking SHGs, these branches particularly in 13 identified states, should develop a sustainable mechanism (SHG-bank linkage, individual banking or grameen models) that can facilitate poor families to not only easily access financial services but also achieve financial inclusion.

The NGOs have played a commendable role in promoting SHGs and linking them with banks. The NGOs being local initiators, with their low resources they find it difficult to expand in other areas and regions. There is therefore a need to evolve an incentive package that should motivate these NGOs to diversify into other backward areas. The state Governments and NABARD may consider allocating required funds out of the budgetary support and the Microfinance Development and Equity Fund respectively for the purpose of promoting SHGs in 13 states with high levels of poverty. MFIs may need to monitor the impact of providing financial services which can reflect on decreasing number of poor

families each year and formulate a time bound programme to lift families out of poverty in 7 to 10 years.

#### **6.4 Loan per borrower**

Even after 9 years of MFI operations, the average loan balance of \$106 per borrower accounting for only 15 percent of GNI is extremely low to improve the standard of living of the poor families. It may be in order for MFIs to develop financial products best suited to the poor families through appropriate market research.

It is observed that most of the borrowers are financed for consumption loans, retail trade, small business, etc. but the immediate area of concern is to facilitate tenant farmers, share croppers and oral lessees under farm and non farm sectors, whereas landless labourers, artisans and those residing in desert, drought prone, hilly areas may need to be facilitated to access microfinance for cottage and rural industries as well as for activities under service and business sector.

In order to create visible impact of microfinance in improving income and standard of living of this category of clients, it is absolutely essential and desirable to link availability of microfinance with the availability of technology, inputs/ raw materials, tools/equipments and marketing services. For this, there is an immediate need to reorient the role, responsibilities and functions of existing developmental and growth promotional formal institutions such as, handloom board, handicrafts board,

sericulture board, coir board, Khadi and Village Industries Commission and to link their supplies and services with MFI's credit. These poor families have been very well endowed with their traditional inherited skills that need to be sharpened through training to acquire entrepreneurial and financial skills that can improve the quality and value of their products.

In case of farm sector too, the role of farm universities, research institutes and extension workers must necessarily be reoriented and expanded to focus on researching and disseminating low cost and yield enhancing farm technology so that these poor families can make efficient use of labour and small pieces of land to grow vegetables, fruit- trees and resort to short duration multi cropping as well as crop cum livestock cum fish farming system. They should also be given packages of practices/ services and periodical training to improve financial viability of the credit based farm development project.

## **6.5 Financial services**

MFIs have so far concentrated on lending activities and have not paid the desired attention to develop and introduce savings, insurance and remittance products as an integral part of financial services. Poor households very much need these products and services for which MFIs need to be enabled to undertake market research, develop products and deliver them through appropriate delivery channels.



## **6.6 Thrift deposits**

The development objectives of many MFIs mean thrift deposits, services and empowerment through the promotion of governance capabilities that are at least as important as lending to their members. Savings of SHG members constitute the real strength on which the SHG- Bank linkage programme is founded. Savings form the crux of the empowerment and are collected to give members the experience of financial management as a means of developing self- governance capabilities. The sample of 58 MFIs showed total thrift deposits of \$28.8 million in 2007. As SHGs promoted by MFIs do not include the amount of savings actually mobilised and retained by each SHG for internal circulation, the actual amount of savings is not recorded by MFIs in their accounts. However, estimated savings of members of MFIs in the sample would increase to \$37 million. If an appropriate regulatory framework for MFIs of all legal forms is put in place the MFIs can develop client friendly savings products to mobilise resources for lending. This can have direct and significant impact on reduced borrowings from commercial banks at market rates which in turn can improve profit margins of MFIs. In absence of this, borrowings have reached three- quarters of total liabilities on MFI balance sheets as funds have been secured from both private and public sector commercial banks at 10 percent to 14 percent interest per annum. Even small MFIs with relatively low exposure

to financial markets have succeeded in sourcing half of their liabilities through bank borrowings.

## **6.7 Micro insurance**

Micro insurance is a key element in the financial services package for poor households. Usually poor face two types of risks. Viz idiosyncratic (specific to the households) and covariate (common, drought, epidemic, etc). To combat these risks, the poor adopt proactive risk management practices such as grain storage, savings, asset accumulation (specifically livestock), loans from relatives and friends, etc. however, the prevalent forms of risk management that were appropriate earlier are no longer adequate and effective. Poverty is not just a state of deprivation but has a latent vulnerability. The draft paper prepared by the Consultative Group to Assist the Poor (CGAP) has aptly defined micro insurance as ‘the protection of low income households against specific perils in exchange for premium payments proportionate to the likelihood and cost of risk involved’. A study commissioned by the United Nations Development Programme (UNDP) entitled ‘Building Security for the Poor- Potential and prospects for Micro insurance in India’ states that 90 percent of the Indian population- some 950 million people- is not covered by insurance and signify an untapped market of nearly \$2 billion.

Micro insurance should therefore, provide greater economic and psychological security to the poor as it reduces exposure to

multiple risks and cushions the impact of a disaster. There is an overwhelming demand for social protection amongst the poor. Micro insurance in conjunction with micro savings and micro credit could go a long way in keeping this segment of households away from the poverty trap and would truly be an integral component of the financial inclusion.

The Indian Labour Organisation has prepared an inventory of 51 micro insurance schemes operational in India. Most of them were launched in the last 7-8 years. About 43 schemes for which information is available cover 5.2 million people. Most insurance schemes (66 percent) are linked with microfinance services provided by the special institutes or non specialised organisations. About 22 percent of the schemes are implemented by community based organisations and 12 percent by health care providers. Life and health are the two most popular risks for which insurance is demanded; 59 percent of the schemes provide life insurance and 57 percent of them provide health insurance. Most of the schemes operate in Andhra Pradesh (27 percent), Tamil Nadu (23 percent), Karnataka (17 percent), Maharashtra (12 percent), Kerala (8 percent), Gujrat (6 percent), and the rest 18 percent.

There is a need for MFIs to study the existing micro insurance products, identify shortcomings and tailor them to suit to their clients. The poor households need life insurance, health insurance, asset insurance, crop insurance, live stock insurance,

etc. design of micro insurance products for poor should have the features of simplicity, availability, affordability, accessibility and flexibility. Insurers, regulators and the Government may need to address some of the key issues (demand supply gaps, appropriate products and pricing) that will improve customer satisfaction, provide distribution efficiencies for better outreach and remove procedural hassles facilitating easier renewals and claim settlements. Premium amount may be shared among client, MFI, union and state governments and insurance companies to make the insurance products attractive and serve the desired purpose of protecting the poor households.

#### **6.8 Remittance needs of the poor**

The poor need a remittance system to send money to their families when they migrate out of their villages or when parents in the village need to remit money to their children in the city. Other cases of remittance could arise on account of transfer payments by government and other organisations. With new technology and computerisation of banking operations, new remittance products have been introduced in the market which have increased the speed, cost effectiveness and efficiency of the payments and settlement system which meets the needs of a modern economy but leaves the financially excluded sections of the population untouched. This call for a conscious attempt to build a payment and settlement system that caters to the needs of the poor and excluded sections of the society, more importantly the poor

households. There is therefore, an immediate need for MFIs to develop need based remittance products for poor. The remittance service for poor should have the following elements.

- **Accessible service:** the product should be available to them without necessary hassle. Entry barriers such as existing relationship with banks, possession of checkable accounts or filling up long forms act as deterrents in accessing the service.
- **Timeliness and certainty of delivery:** predictability of delivery at the recipient's place is important for those who depend on remittances for meeting their basic needs.
- **Cost effectiveness, affordability and value for money service:** the remittance needs are mostly repetitive and of small value. The present system of remitting through formal channels is costly and time consuming. Other informal sources are risk prone.
- **Receipt of delivery status:** timely confirmation of delivery is a requirement for poor who have limited access to communication facilities.

### **6.9 Linking MFI clients with programme**

The government of India in close cooperation with state governments has been implementing a plethora of programmes for the social and economic welfare of poor and the poorest families throughout the country. However, the intended beneficiaries have not benefited as expected. MFIs may need to link their clients with these ongoing government aided/ funded programmes such that not only the client's income can increase

but also human resources can be optimally utilised to reflect on the improvement in standard of living.

## **6.10 Financial Inclusion in India: Trends Beyond Microfinance**

### **Microlending: Current Industry Trends**

In the Indian context, microfinance is no longer the purview of development institutions. While the rhetoric of development has been retained, banks have embraced it as an extremely profitable business, for two reasons.

First, Indian banks are required to lend a certain percentage (currently 40%) into priority areas called priority sector lending which includes agriculture, SMEs, and government securities. Compared to returns on government bonds of 6-7%, MFI lending provides returns of 10-14%. Banks, therefore, have expanded investments in these areas.

Second, microfinance lending – as it is currently practiced – is simply not very risky. In the absence of individual credit assessments, MFIs lend to groups or through referral, leading to repayment rates of 95% or more. Banks then get the best of both worlds – higher rates of return with very low risk.

The result is massive expansion in micro lending. ICICI Bank, the largest private bank in India, had 1.2 million microfinance clients in 2005 and a portfolio of \$227 million. A year later, ICICI has multiple partnerships and 3 million clients, targeting 25 million in

3 years. Other banks, such as ABN Amro, and YES Bank have smaller but still sizable operations that generate goodwill benefits for their entire operations (both featured on FT's sustainable banking awards last year).

Public sector banks usually operate as integrated micro-lenders, creating self-help groups (SHG) to which they disburse loans directly rather than through an intermediary. Private sector banks, by contrast, operate through a partnership model, contracting with existing MFIs to function as the banks retail arm to acquire and manage micro-clients. In return, MFIs retain a percentage of the interest earned on loans. Many MFIs are now financially independent of such funds, but high effective rates (of over 30%) have also led to a regulatory backlash.

### **6.11 Mismatch between Credit and Deposit Growth**

This expansion of rural credit tracks a more general expansion of *retail* credit in India. In 2006, non-food credit expanded by over 30%, up from a growth rate of 28.8% in the 3 years prior. Simultaneously, the share of retail credit in overall credit stood at 46% in 2005-06, up from 6.4% in 1990-91.

Interestingly, this growth has not been accompanied by growth of deposits, particularly in rural areas. As a result:

Banks have been financing much of the incremental credit expansion by unwinding their surplus investments in government

securities. What deposit growth that has been observed is, moreover, concentrated in the larger cities [this] could also mean that financial inclusion may have suffered.

The implications of this mismatch are important to understand some of the constraints faced by an expanding micro banking industry. In the absence of deposit growth banks face a liquidity problem which limits further credit expansion. This problem is evident in recent policy changes to reduce the statutory liquidity ratio (SLR) of Indian banks.

In other words, the banking system will be expected to increasingly provide larger quantum of funds to existing and emerging enterprises. And without adequate deposit growth, however, credit expansion might not be sustainable over the medium-term, without putting immense pressure on real interest rates and impacting the overall stability of the financial system.

### **6.12 Financial Inclusion: Consequences and Benefits**

The preceding discussion does not distinguish between rural and urban markets. However, the expansion of financial services to all sections of society (financial inclusion) is important, in order to leverage development and growth benefits. There are obvious reasons to encourage such financial inclusion and deepening:

Countries with low levels of income inequality tend to have lower levels of financial exclusion, while high levels of exclusion are



associated with the least equal ones. In Sweden, lower than two per cent of adults did not have an account in 2000â€¦[while] in Portugal, about 17 per cent of the adult population had no account of any kind in 2000.

The Gini index for Sweden was 24, and for Portugal 37 in 2001 (lower is better). Sweden ranked 119 , and Portugal 59 in income inequality in 1996.

At the macro-level a well-developed and widespread financial system accelerates growth through expansion of access to those who do not have adequate finance themselves.□

In its absence, the sources of finance available to individuals and enterprises are limited. The McKinsey Quarterly reports that companies in emerging markets demand further development of financial systems, and remain limited in their ability to access external finance. This results in fewer economic activities being financed, resulting in lower growth potential. Further, financial exclusion is self-propagating and limits growth prospects:

It is the incumbents who have better access to financial services through relationship banking. Moreover, incumbents also finance their growth through internal resource generation. Thus a growth is constrained to the expansion potential of incumbents. At the individual, micro-level, however, the consequences of financial exclusion are very different. Exclusion results in a susceptibility

to cash flow disruptions, inability to benefit from interest rates, and lack of long-term financial security and planning through saving opportunities.

It is very important to note the distinction between the enterprise level macro benefits and the individual micro benefits, as the two are often confused in development literature. In the former, the benefits of inclusion are productivity and higher trend growth. These are benefits commonly ascribed to microfinance, yet microfinance as it is currently practiced is targeted not at enterprises but at individuals. The benefits that accrue therefore are smoothening consumption and safeguarding assets from major disruptions (e.g. disease, natural disaster). Recent studies seem to suggest as much.

### **6.13 Policy Responses to Financial Exclusion**

Despite the massive growth in micro-credit mentioned previously, the author expresses serious concern over financial exclusion in India, backing those concerns with data. For instance, spatial distribution of banking services indicates that rural credit, deposits, and offices as a share of overall services decreased between 1996 and 2005, with most expansion restricted to metropolitan areas.

There are two obstacles to greater financial inclusion. The first is simply commercial. Transaction costs for both banks and clients

remain high, particularly in disbursing credit, which is essentially a high cost, distributed business. Further, interest rates remain high in the absence of structured credit assessments. The second obstacle is policy requirements such as know your customer (KYC) procedures that limit the geographical reach of financial services beyond physical bank branches.

Yet, the importance of financial inclusion becomes important, particularly in the context of doubling agricultural productivity, targeted for India 11<sup>th</sup> five year plan. Consequently, the RBI has moved to enforce multiple policy and industry changes:

1. Banks have been asked to voluntarily make available a no-frills account, and all printed bank material has to be made available in regional languages.
2. KYC procedures have been simplified for low income groups.
3. Significantly, since January 2006 banks can provide a full range of banking services through a business facilitator and correspondent (i.e. MFI partnership) models. Previously, MFIs could only provide credit, but not open bank accounts.
4. The Credit Information Bureau Act, 2006, will eventually establish a credit bureau that makes available credit histories of individuals and small businesses. This should lower risk for banks, in extending credit further.

This has been an inordinately long post, but an eye-opening one. Most microfinance literature has seen credit expansion as an end

in itself, with productivity benefits magically accruing from such expansion.

This discussion, however, debunks that belief without denying the importance of micro credit. However, micro credit must be part of micro-banking, which must be seen as a viable and important business within the financial sector.

Contrary to popular belief, the reach of microfinance in India remains limited. Both market and policy reforms are necessary in order to correct this, expand micro credit, and sustain it through deposit growth. The resulting industry and policy moves may prove important for other countries on a similar trajectory.

### **6.13 The Microfinance Promise in Financial Inclusion:**

#### **Evidence from India**

Finance is one of the effective tools in spreading economic opportunities. Wider access to adequate and timely finance helps both the producers as well as consumers in raising their welfare status. The increasing gap between demand and supply of financial services has led to the 'exclusion' of large number of rural population from formal financial institutions. As a response to the failure of formal financial institutions in reaching the poor, the 'micro credit' or more broadly 'microfinance' approach was innovated and institutionalized in the Indian rural credit system. It was aimed at overcoming the twin problems of formal credit

system-non-availability and poor recovery performance of the existing rural credit institutions. As a result, Microfinance Institutions (MFIs) have made inroads into the rural areas to improve and extend timely, easy and adequate access to financial services. In this context, the present paper examines the nature and type of new institutions that emerged in the Indian financial system to include the excluded. The study finds that SHG-bank linkage and MFI models are the two dominating microfinance approaches in the post-financial reforms in India. The study also finds that the microfinance sector in India is growing with the genesis of new institutions on the one hand and, on the other hand, the NGOs are transforming themselves into financial institutions and entering the business of microfinance. The study concludes that the suitable regulatory environment is the prime concern for sustainable delivery of microfinance in India.

#### **6.14 Financial Reforms and Rural Credit**

Finance is an extraordinary effective tool in spreading economic opportunity and fighting against poverty. Wider access to finance helps both the producers as well as consumers in raising their welfare status. Access to finance allows the poor to use their rich talents or opens avenue for greater opportunities. A composite set of services like credit, savings, and insurance protects from the unexpected shocks or fluctuations. Therefore, the role of finance has been critical in economic growth and development as observed in many of the countries over the years. In one of the

early expositions, Schumpeter (1911) argued that the functions and role of finance are essential for technological innovation and economic development. A number of studies have found that the poor need financial services to help them, manage their lives and livelihoods that are complex, diverse, dynamic and vulnerable, and the poor want their financial services to respond by being reliable, flexible, continuous and convenient (Morduch and Rutherford, 2003). Financial system affects growth by altering the savings rate sometimes by their allocation of savings for capital producing technologies (Romer, 1986). Credit or other resource allocation processes of financial institutions can, in principle, lead to efficient financial management and enhanced growth. Provision of finance facilitates entrepreneurship, innovation, and improvement of economic productivity and thus finally contributes to both economic development and growth.

6.15 In India, in the pre-reform period, the commercial banks were nationalized (in 1969 and 1980) with an objective of extending the financial services to rural areas. For long, these banks played a vital role in providing financial services to the rural areas. However, the introduction of financial reforms had an instantaneous, direct and remarkable effect on rural credit system. The policies of liberalization have generated shocks to financial sector and there has been a decline in rural banking in general, and in priority sector and preferential lending to the poor in particular (Ramachandran and Swaminathan, 2002 and 2005).

These changes in pre- and post-economic reforms are explained through indicators such as the number of rural bank offices, the rural credit outstanding and deposits, Credit-Deposit (C-D) ratio, credit share in favour of agriculture and small-scale industries, and credit to the priority sectors.

6.16 In the post-reform period, banks were allowed to convert their nonviable rural branches into satellite offices, or to close down branches at rural centres served by two or more commercial banks. At the same time, the regional rural banks were allowed to relocate their loss-making branches to new places that may be outside the rural areas (Shetty, 2005). It is relevant here to look at the RBI's (1997) policy on this subject-"Banks had been given the operational freedom to open and relocate branches at semi-urban, urban and metropolitan centers subject to the approval of respective Boards and ensuring track record of profit in the last three years...". The entire scheduled commercial banking sector was reluctant to opening of rural branches and the new policy in banking totally arrested the growth of banking in rural areas. Thus, branch network in rural areas was downsized after the commencement of financial liberalization.

6.17 In the pre-reform period (1991), in India, the percentage of rural bank branches to the total bank branches was as high as 56.92%. However, in the post-reform period, there was an ongoing decline in the share of the rural bank offices which fell below 50% in 1998

and thereafter. In fact, the present share (percent) of rural bank offices to total bank offices is equal to that of the 1980s, i.e., 45.69% in 2005 and 45.72% in 1980s. It is clear that more than 10% of rural bank offices were either closed down or shifted to more 'profitable' zones for several reasons. However, 'poor repayment' was cited as the root cause for relocating many rural banks. The tendency to shift from rural areas had an adverse effect on vulnerable sector in obtaining credit. This gave an opportunity to the MFIs to feed the thinning financial services in the rural areas.

6.18 There was a sluggish growth of rural deposits and credit in the pre- and post-reforms period. Before the liberalization of banking sector in India, the share of rural deposits to the total credit was as high as 15.46% in 1991, which declined steadily after the reforms to as low as 12.20% in 2005 (relatively deposits in 2005 and 1980 are the same). The C-D ratios have fallen sharply since the beginning of 1991, both in terms of the amount sanctioned and amount utilized (Ramachandran and Swaminathan, 2005). There was a steady decline in the C-D ratios in rural branches from over 73% to around 61% in 1984 and 1991 respectively. After 1991, there was a sharp decline in the ratio for the rural branches, i.e., as low as 39% in 2001. This is the most miserable facet of banking development in the past decade (Shetty, 2005). Decline in the C-D ratio is the result of slowdown of banking activity (low profitability with high non-performing assets) by the public sector commercial banks in rural areas. There is relatively sharp decline



in the number of rural and semi-urban bank offices and in the credit disbursed in the pre- and post-reform periods. Similar trends were true of total commercial bank credit to agriculture (Chavan, 2001).

6.19 One of the prime objectives of bank nationalization (1969 and 1980) was to inflate the flow of credit to agriculture and small industries, or this direction of lending was termed as 'priority sector' lending (Ramachandran and Swaminathan, 2002 and 2005). The share of these sectors in the total advances of scheduled commercial banks rose from 14% in 1969 to 33% in 1980. In the mid-1980s, the RBI had set a target of 40% for priority sector lending and this target was overachieved during the period 1986-89. From 1991 to 1996, the share of priority sector advances fell in line with the recommendations of the Narasimham Committee. From 1990-91 to 1996-97, loan accounts to agriculture fell by 5 million (Narayana, 2000). While 52% of bank credit in rural areas went towards agriculture in 1985, the proportion fell to 38% in 1998 (Nair, 1999). In the post-economic reform period, there was a sharp decline in the priority sector lending, and the same trend continued until the end of March 2003. However, the situation changed after 2004; there was a slight increase in the priority sector advances. It is interesting to observe that the reforms introduced since 1991 in the banking system have had a heavy toll on small borrowers. The spread of banking credit facilities has not only halted but the number of small borrowers

getting financial facilities too sharply declined in the post-liberalization period.

6.20 The World Bank indicates that no official survey of rural access to finance has been conducted since 1991. However, a survey conducted jointly by the World Bank and the National Council of Applied Economic Research (NCAER), the Rural Finance Access Survey (RFAS) 2003 allows for analysis of some trends between 1991 and 2003 (World Bank, 2004; and Basu and Srivastava, 2005). Following bank nationalization, the share of banks in rural household debt increased to approximately 61.2% in 1991. Despite these achievements, there still has been little progress in providing the rural poor with access to formal finance. Rural banks served primarily the needs of well-off rural borrowers with around 66% of large farmers having a deposit account and 44% with access to credit, in contrast to 70% of marginal/landless farmers who do not have a bank account and 87% who are without access to credit. Access to other financial services like insurance are even more limited for the rural poor.<sup>1</sup> Inadequacies and incompetence in access to formal financial institutions and the seemingly extortionary terms of informal finance for the poor provide a strong need and ample space for innovative approaches to serve the financial needs of India's poor. Over the past decade, government, financial institutions and NGOs have made efforts in partnership, to develop novel financial delivery approaches. These microfinance approaches have been designed to combine

the safety and reliability of formal finance with the convenience and flexibility that are typically associated with informal finance (Basu and Srivastava, 2005).

6.21 Against this backdrop, the present study makes an attempt to examine the nature and type of new institutions that have emerged in the Indian financial system to include the excluded poor. The study also analyzes the outreach of two dominant microfinance models in India, viz., SHG-Bank Linkage Program (SBLP) and private MFIs. The study analyzes the financial inclusion in terms of credit outstanding as well as the number of clients served over the years, by the new institutions. The major source of secondary data include the RBI publications, National Bank for Agriculture and Rural Development (NABARD), MIX (Microfinance Information eXchange) market, Sa-Dhan used for analyzing the outreach of microfinance models, over the years.

## **6.22 Microfinance: Innovations and Revolution**

Providing sustained credit services is one of the means to increase income and productivity of the poor. However, the (Indian) formal financial institutions have failed to provide these services (Adams et al., 1984; and Hoff and Stiglitz, 1990). Key factors for the failure and inefficient functioning of credit markets include uncertainty, information asymmetries and moral hazard. These generate high risks for financiers and high costs for borrowers. These problems become all the more significant when

the borrowers are poor and lack of collateral makes it difficult for lenders to enforce contracts and repossess collateral (Hoff and Stiglitz, 1990; Huppi and Feder, 1990; Stiglitz, 1990; Varian, 1990; Yaron, 1994; and Wenner, 1995).

**6.23** Microfinance has emerged as a 'revolution'<sup>3</sup> (Robinson, 2001) or a viable alternative to reach the hitherto unreached for their social and economic empowerment through social and financial intermediation (Sriram, 2004). Thus, microfinance is widely accepted as a potential 'innovation' to minimize risks in the credit markets (Ghatak, 1999; and Morduch, 1999) through the noble solution of 'group lending' contracts (Morduch, 1999) with 'joint liability' (Stiglitz and Weiss, 1981; Stiglitz, 1990; and Wenner, 1995). In the microfinance program, the joint-liability provides incentives or compels the group to undertake the tasks of selection, monitoring and enforcement of repayment in a cost-effective manner. This leads to reduced transaction costs, increased volume of transactions and improved accessibility of credit to the poor (Huppi and Feder, 1990; Stiglitz, 1990; Wenner, 1995; and Morduch, 1999). The group lending contract is the most celebrated innovation in microfinance (Morduch, 1999); it emerged as a potential solution for bridging the gap between the supply and demand for rural finance.

**6.24** The institutional arrangements that are providing microfinance services are called Microfinance Institutions (MFIs). They include

all types of entities ranging from NGOs to regulated financial institutions (Christen and Drake 2002; and Littlefield et al., 2003). MFIs are playing alternative or intermediary role to formal financial institutions in bringing financial intermediation to the doorsteps of its clients (Khandker, 1998). The inception of MFIs was a direct response to the failure of government and donor supported rural credit programs to reach the very poor in rural areas (Remenyi, 1997). Asian Development Bank (ADB, 2000) defines MFIs as, "Institutions whose major business is the provision of microfinance services". However, the modern MFIs are commercializing their business with profit orientation, by using market-based funds, progress towards financial self-sufficiency (Charitonenko and de Silva, 2002). Aluthge (2001) rightly says that to be a successful MFI, it should try to increase its operational, intermediation and dynamic efficiencies. The first MFIs appeared in South Asia, i.e., Grameen Bank (GB) and Bangladesh Rural Advancement Committee (BRAC), in the late 1970s as a pilot project. Later, the Bangladesh GB model was replicated in more than six other countries in Africa and Asia. Nepal in 1986 adopted the new strategy of linking SHGs with the formal financial institutions. In pursuit of this, in 1988, Indonesia started linking banks and SHGs. Following Indonesian experience in the establishment of MFIs, countries such as the Philippines, Thailand, Sri Lanka, and India in the early 1990s (Kropp and Quinones, 1992; and Todd, 1998) started similar MFIs.

6.25 MFIs have been classified by legal status; they may be not-for-profit MFIs, cooperatives, registered banking institutions, and government organizations. Many of the MFIs working today such as Grameen Bank, BRAC (Bangladesh), and SANASA (Sri Lanka), KREP (Kenya), MMF (Malawi), BancoSol (Bolivia) are basically NGOs; subsequently, some of them have been transformed into banks or they work as NGO-MFIs in large scale. There are a large number of unregulated NGO-MFIs in the world of microfinance; they account for 61.4% of the sample (IFPRI survey on worldwide MFIs, 1999).

## **6.26 Microfinance Industry in India**

Indian microfinance has continued growing rapidly towards the main objective of financial inclusion, extending outreach to a growing share of poor households and to approximately 80% of the population that is yet to be reached directly by the formal institutions (Ghate, 2007). Microfinance services in India are provided mainly by two different models. However, SHG-Bank Linkage (SBL) model has emerged as the more dominant model due to its adoption by state-owned financial institutions. Microfinance service providers include apex institutions such as National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI), and Rashtriya Mahila Kosh (RMK). At the retail level, commercial banks, regional rural banks, and cooperative banks provide

microfinance services as a part of the banking activities (Rao, 2008). Nevertheless, a large number of poor people are outside the gamut of formal banking. An attempt was made by the private microfinance industry to include the excluded poor in formal financial services. These semiformal institutions that undertake microfinance services as their main activity are generally referred to as MFIs. The MFIs are mainly in the private sector (Ghate, 2007; Rao, 2008; and Singh, 2008). A 'task force' on microfinance policy set up by the Governor of RBI under the chairmanship of Y C Nanda (Managing Director of NABARD) has suggested a working definition on MFIs, i.e., MFIs are "those which provide thrift, credit and other financial services and products of very small amounts mainly to the poor in rural, semi-urban or urban areas for enabling them to raise their income levels and improve living standards".

6.27 MFIs are classified and governed according to the legal act under which they were incorporated. An estimated 80% or more of the 2,000 MFIs in India are registered as philanthropic societies and essentially unregulated (NGO-MFIs). It means that larger magnitudes of microfinance programs in India are pioneered by the not-for-profit MFIs (MFIs or NGO-MFIs). If we include Mutually Aided Cooperative Societies (MACS) that have microfinance activities, then the number of MFIs would be about 3,800. The total outreach of these MFIs is estimated at about 3.8 million members. The loan outstanding of members of Sa-Dhan, the association of MFIs was Rs. 400 cr in 2004. Many are growing fast and doubling

their size every year. There is no single regulatory body to standardized financial disclosure based on international best practices in India (ADB, 2000; and Chankova et al., 2005). MFIs in India can be broadly subdivided into three categories (or sometimes four classifications) of organizational forms (Table 1), viz., not-for-profit MFIs (two sub-categories-NGO-MFIs and non-profit Section 25 NBFC-MFIs), Cooperative MFIs, and for-profit NBFC-MFIs. While there is no published data on private MFIs operating in the country, the number of such MFIs is estimated to be around 800. However, not more than 10 MFIs are reported to have an outreach of one lakh microfinance clients (Ghate, 2007; Karmakar, 2008; Rao, 2008; and Satish, 2008).

6.28 MFIs in India follow a diverse nature of methodologies to serve their clients. The Self-Help Group (SHG) model (NGOs as a financial intermediary to the SHGs) has been predominant in India. There are MFIs that follow even the Grameen Model (SHARE Microfin), the individual lending model and some follow a mixed methodology like BASIX. However, not all MFIs can provide a composite set of services, because the legal and regulatory constraints do not allow them to do so. MFIs such as SEWA Bank, KBSLAB (Local Area Bank in BASIX), Cashpor in UP and Spandana in AP are some of the few that offer all the three major microfinance services, viz., credit, savings, and insurance to their clients.



## **6.29 Dual Model for Single Promise: An Analysis of SBL and MFIs in Financial Inclusion**

Microfinance has worked in the sense of creating a euphoria that is unparalleled in the recent history of development practice. By the end of 2003, about 80 million clients across the world were being financially included by approximately 2,900 such institutions. However, India's share in the global microfinance market in 2003 was 13% of all clients and 16% of the poorest clients, thanks to the SHG-Bank Linkage program (SBLP) of the NABARD and the private sector MFIs. India, thus, is home to one of the largest microfinance programs in the world (Nair, 2005; and Karmakar, 2008). The study explains the financial outreach of the two microfinance models in India.

### **6.30 Financial Inclusion by the SHG-Bank Linkage Model**

Against the backdrop of inability and apathy of the formal banking sector to serve the needs of low income clientele, and the increased demand for credit from rural households, the question that naturally arises is how can the gap between demand and supply of funds in the rural economy be bridged. Interestingly, the formal institutions took the initiative to develop a supplementary credit delivery mechanism like SHGs with the active participation of NGOs as Self-Help Promoting Institutions (SHPIs) (Varman, 2005). In India, first official interest in informal group lending took

shape during 1986-87 on the initiative of the NABARD. The National Bank initiated certain research projects on SHGs as a channel for delivery of microfinance in the late 1980s. Among these, the Mysore Resettlement and Development Agency (MYRADA) sponsored action project on "Savings and Credit Management of SHGs" was partially funded by NABARD in 1986-87. In 1988-89, in collaboration with some of the member institutions of the Asia Pacific Rural and Agricultural Credit Association (APRACA), NABARD undertook a survey of 43 NGOs in 11 states in India, to study the functioning and operation of microfinance SHGs and their collaboration possibilities with the formal banking system. Both these research projects threw up encouraging possibilities and NABARD initiated a pilot project called the SHG-Bank linkage project (NABARD, 1991). Nearly 2.92 million SHGs were provided bank credit of over Rs. 180.41 bn by March 2007. It is well acknowledged that 90% of the microfinance groups consists of women members. Over 50 commercial banks, 96 regional rural banks and 352 cooperatives were involved in financial inclusion of the poor across 587 districts in India.

- 6.31 The success of any lending program is reviewed on the basis of repayment of the loan. Correspondingly, repayments by members to SHGs have been exceedingly high and on time. Repayments have generally been above 95% (Singh, 2008).

6.32 Of the two major models of microfinance in India, the SBLP is the dominant model in terms of number of borrowers and loan outstanding (Ghate, 2007). The cumulative number of SHGs linked has grown many folds in the last five years, to achieve an outreach of about 40.95 million families through women's membership in about 2.9 million SHGs by March 2007. It is not that only the linked members will have the credit services; but, almost all members will have the regular/compulsory savings in the networked banks. Thus, it is worth mentioning here that the SBL microfinance model has included the poor by creating a link between the poor and the formal institutions.

### **6.33 Financial Inclusion by MFI Models**

In India, in recent times, new types of institutions are being introduced to deliberate absolutely in the field of microfinance and adopt policies, products and procedures that enable them to deliver microfinance services in a sustained and profitable manner. Of late, a noticeable trend of more and more developmental agencies stepping into microfinance sector as a tool of sustainable development strategy is being noticed. The microfinance initiative in the private sector can be traced to the initiative undertaken by Ela Bhatt (Founder of the Self-Employed Women's Association, SEWA) for providing banking services to the poor women employed in the unorganized sector in Ahmedabad, Gujarat. Thus, the first well-known MFI, SEWA, was

incorporated as an urban cooperative bank in 1974, and paved the way for microfinance in India by showing that the poor were bankable. In the 1980s, a number of registered societies and trusts commenced group-based savings and credit activities on the basis of grant funds from donors. Others towards the end of the decade began replicating the Grameen model, based initially on donor funding but increasingly on funding from domestic apex financial institutions.

6.34 Even now there are no comprehensive (reliable) estimates available on the financial inclusion (outreach) of the microfinance industry in India. The very specific reason for the non-availability of database is that the MFIs are varying with different legal framework. These frameworks are not helpful in gathering the information on microfinance. A large number of institutional suppliers of microfinance in India are the NGOs that are registered with unregulatory norms and there is no control or coercive power on these institutions.

6.35 There is a diversity of approaches to microfinance in India, involving banks, government agencies and NGOs. These approaches are contributing for the incredibly speedy growth of microfinance industry. A vast number of institutional categories are working in India to reach large number of poor, who are outside the ambit of formal banking. However, in India, other than the SHG-Bank Linkage program, the data on microfinance

outreach is very limited and non-available. This non-availability of the data on microfinance sector (macro level) will lead to improper estimation of the sector as such. Currently, there are only two major sources of database available on the Indian microfinance industry, viz., the 'MIX Market' and 'Sa-Dhan' the Association of Community Development Finance Institution.

### **6.36 The MIX Market**

The Microfinance Information eXchange (MIX) incorporated in June 2002 as a not-for-profit private organization aims to promote information exchange in the microfinance industry. MIX Market is a global, web-based, microfinance information platform. The MIX's three objectives are: (1) Lead benchmarking activities and help increase standardized reporting among MFIs; (2) Improve and stimulate MFI performance and transparency; (3) Boost public and private investment in microfinance through increased information exchanges.

6.37 It provides information to sector players and the public at large on MFIs worldwide, public and private funding agencies that invest in microfinance, MFI networks, raters/external evaluators, advisory firms, and governmental and regulatory agencies. The MIX Market seeks to develop a transparent information market to link MFIs worldwide with investors and donors and promote greater investment and information flows. The MIX Market provides MFIs data that include outreach and impact data, financial data, audited

financial statements in addition to general and contact information. It also provides information on donor/investor portfolio, data details of financial instruments used, application and reporting processes, etc.

**6.38** According to the data available from the MIX market, there were around 98 MFIs that reported their financial and physical outreach information; 65.3% of these belongs to the not-for-profit MFIs and 18.4% belongs to for-profit MFIs. However, 56.5% of the financial outreach and 55.3% client outreach are covered by for-profit MFIs in India as compared to 36% financial outreach and 34.4% client outreach by the not-for-profit MFIs. Small number of for-profit MFIs in India is dominating the microfinance markets. Nevertheless, they are highly drifted towards the southern region of the country. It is also clear that large number of NGOs is emerging as small MFIs in India. Thus, the direction of policy in providing suitable legal framework for the new generation MFIs is the present policy concern. It will provide a new ground for the new players in the development of the microfinance industry in India.

### **6.39 Sa-Dhan**

Sa-Dhan's mission is to build the field of community development finance in India. Its objective is to help its members and associate institutions to better serve low-income households, particularly women, in both rural and urban India, in their quest for

establishing stable livelihood and improving quality of life. According to Sa-Dhan, "The microfinance sector is witnessing a steady growth. There has been significant progress in terms of expansion across regions and outreach. With the growth, the sector is witnessing increased diversity in terms of operating models, legal forms, outreach to clients, local contexts, regional imbalances, etc." (Sa- Dhan, 2007). As of March 2007, the client outreach of Sa-Dhan members exceeded 10.5 million and their gross loan portfolio crossed Rs. 3,987 cr (\$ 997 mn), i.e., nearing a billion of dollars (Figure 2). Thus, Sa-Dhan considers that microfinance sector in India is still evolving and witnessing increasing entry of new players.

6.40 According to the Snapshot Report of Sa-Dhan (2007), it covers a total of 129 MFIs across the country. In terms of regions, the coverage comprises 49 institutions from South, 58 institutions from East, 12 institutions from North, and 10 institutions from West. The institutions collectively represent a gross loan portfolio of Rs. 4,275 cr (\$10.69 mn) and client outreach of 8.23 million as of March 2007. For the financial year 2006 and 2005, the gross loan portfolio stood at Rs. 1743 cr (\$436 mn) and Rs. 897 cr (\$224 mn) and clients outreach figures stood at 5.15 and 2.64 million respectively. The institutions in South have a collective client outreach of 5.53 million (54% of the coverage), followed by institutions in the East with their collective client outreach of 2.02

million (25%); institutions in the West and North each, have client outreach of about 0.34 million.

6.41 On a year-to-year basis, the coverage of 129 MFIs had an annual growth rate of 95% in the financial year 2006 and further 60% in the financial year 2007. Client outreach of MFIs in the South is substantive. In terms of encouraging trends, the growth rate in client outreach is being led by MFIs in North and East regions; their annual growth rate being 84% and 82% respectively in the financial year 2007. MFIs in South have, over the years, covered a large number of clients and achieved a high rate of annual growth of 56% in the financial year 2007. MFIs in the West, being in the nascent stage, are having the highest annual growth rate of 43% across the years. Growth is evident across legal forms. During the financial year 2007, societies and trusts have grown by 82%; new generation cooperatives (MACS) that are 'small', followed with about 51% of annual growth rate among NBFCs and Section 25 companies; Cooperatives (other than MACS) have grown at a lower pace (7% in the financial year 2007) (Sa-Dhan, 2007).

6.42 According to a GOI survey, "...despite recent advances, microfinance in India is just beginning to scratch off its potential to reduce poverty. With more than 300 million people living on less than a dollar a day, India is the largest market for microfinance in the world. And yet, according to the World Bank, less than 5% of India's poor have access to microfinance



services". Yet, in India a small number of MFIs are working with high concentration in the states of Andhra Pradesh, Tamil Nadu, Karnataka and Kerala. This heterogeneous distribution of the MFIs contributes to unhealthy competition among institutions; simultaneously, their monopoly nature leads to usurious rates of interest to their clients.

6.43 The analysis conducted in this study indicates that large number of non-profit institutions are NGOs that are still not competitive and aggressive in reaching the large section of poor people. These institutions are still not using the advanced techniques (of financial institutions) and manpower. These two factors highly influence the progress and performance of MFIs. Therefore, these institutions still require more time to build up their internal capacity and strengthen the delivery mechanism. Nevertheless, some of the not-for-profit MFIs are transforming themselves as financial institutions or opening a microfinance division or setting up separate MFIs in their locality/region. The origins of several Indian MFIs are rooted in the failure of banks to meet the needs of the poor (Sriram and Upadhyayula, 2004). However, the victory of 'microfinance revolution', to a great extent, depends on the reliable services with suitable pricing (rate of interest) of the financial products.

**6.44 Path to Financial Inclusion: The Success Of Self-Help Groups-Bank Linkage Program In India**

Financial inclusion has been a major theme in both industrialized and developing economies in the era of financial globalization. When micro credit institutions have received limited success in many countries, microfinance is being used in India for the purpose of accomplishing universal financial inclusion. This paper recognizes the overwhelming efforts of the Government of India and focuses on the success of the linkage between commercial banks and self-help groups (SHGs). The SHGs comprising predominantly women groups help in the social cause of alleviation of poverty, increase of sustainability, reduction of vulnerability, improvement of capacity building and help the weaker sections build assets. Increased education, better standard of living, reduced child mortality and child labour, emancipation cum empowerment of women, and communal harmony are value adding benefits to the country.

6.45 Financial sector reform in India since independence is essentially focused on the theme of universal financial inclusion but the objective still remains a work in process. Various steps have yielded target oriented results such as branch expansion for commercial banks thanks to nationalization, creation of Regional Rural Banks to assist the farming sector, and state sponsored programs in financing the priority sector. The country has had consistent attempts to offer innovative solutions such as, the

Integrated Rural Development Program (IRDP), to the problems of the poor. These efforts became predominantly felt in the post-nationalization era of major banks. The country's overwhelming steps to promote small, medium and micro enterprises in their entrepreneurial progress and skill development are considered a dire need (Venkataramany and Fox, 2009).

6.46 India has received foreign direct investment of about \$100 billion from 1991 to 2008 but still about 240 million people are estimated to be living below poverty line. The country is well-served by numerous types of financial institutions - 84 commercial banks, 133 regional rural banks, 55 corporations, 13,014 non-banking finance co-operative societies (NBFCs), and 111,777 co-operative institutions. The formation of the National Bank for Agriculture and Rural Development (NABARD) was the highlight of numerous efforts of the Government of India.

6.47 **An International Perspective of Financial Exclusion and Financial Inclusion**

Financial globalization has caused banks to focus on their key credit markets and global portfolio of assets thereby relying on local dynamics for aspects of financial inclusion or financial exclusion (Dymski, 2005). Access to basic banking services for the transmission of money services is an accurate way to assess financial exclusion. Financial exclusion occurs when some members or households are denied access to all financial

services. The reasons for the exclusion may stem from past history and culture of the society. It eventually leads to societal problems such as widespread poverty, concerns of health, lack of education and illiteracy, unemployment, and poor productivity. Financial exclusion thus is a systemic problem hampering sustainable development. Governmental efforts to thwart it are usually undermined by disintegrated regulatory practices (Vaas, 2007). Those without access to financial services have no other alternative but turning to informal and illegal market. They submit themselves to exploitation and predatory lending practices. The process of financial liberalization and economic integration in Mexico has paved way for foreign financial institutions to acquire six major local banks but low and medium income households' access to credit markets still remains limited (Biles, 2005). Financial exclusion can be found in both developed and developing economies.

6.48 Industrialized economies are not exception to cases of financial exclusion where the goal of financial inclusion involves resolution of conflict between social goal and profitability. The Saver Plus program of Australia would have been successful in encouraging savings behaviour if it had included involvement of community groups, financial education and also co-contribution arrangements (Russell, Brooks, Nair and Fredline, 2006). Privatization of the postal system in Japan that has been a traditional savings vehicle has led to possible occurrence of

financial exclusion (Kaneko and Metoki, 2008). Policy response in Europe for the promotion of basic financial inclusion has been ad hoc and country specific policy-making by the EC is not as effective as a national solution as seen in the US-style affirmative action (Carbo, Gardener and Molyneux, 2007).

6.49 The case of the UK has been addressed by numerous scholars whose studies have focused on financial inclusion, financial exclusion, and the Treasury's efforts to overcome the challenges. The country has realized that financial exclusion may be overcome and financial literacy may spread only through credit unions as they have a social purpose (Evans and Broome, 2005). Co-operative credit unions in the UK have served the cause of addressing poverty and promotion of financial inclusion. The support of the government especially the treasury's Financial Inclusion Fund has made an impact within financially excluded communities (Jones 2008). In the last two decades, community credit unions being small had marginal impact within financially excluded communities. The Financial Inclusion Task Fund has brought a significant transformation in the sector. The credit unions have grown to market oriented and commercial social enterprises. Their capacity to tackle financial exclusion from a local reach to national appeal has flourished (Jones, 2006). The growth of the Community Development Loan Fund (CDLF) as alternative financial institutions in the UK was mainly to overcome financial exclusion to disadvantaged households and promote

financial inclusion (Buttle and Bryson, 2005). In the past two decades, increased costs of adopting advanced technology and the need for cost reduction have made the mainstream of financial services infrastructure to be only in urban and metropolitan centres. Their imminent withdrawal from lower income suburbs has given an opportunity to costly sub-prime lenders thrive. Area-based solutions have been considered a viable, affordable, and social-welfare oriented alternative to assist disadvantaged communities. Unless these units embed themselves in the communities they serve, their limitations would undermine their very existence as evidenced by Financial Inclusion Newcastle (FIN) in the North East of England (Fuller, 2008). Financial inclusion must include the three essential dimensions of banking, consumer credit and insurance and the importance of the concept has become more felt in cashless economies (Collard, 2007).

6.50 In Spain, groups at risk of social and financial exclusion are supported by individual loans through the country's micro enterprise initiatives (Garrido and Calderón, 2006). Financial exclusion in Spain also explains the concept of financial deepening and bank dependence (Valverde, Carbó; and Francisco, 2004). Financial deepening involves the development of traditional and non-traditional financial services. Bank dependence makes reliance on banks by households and firms heavy. Most discussions on financial exclusion point towards the retail banking services but it must include access to home

mortgages as evidenced in the case study of Milan (Aalbers, 2007). Financial exclusion in Canada is more concentrated among low-income households. Naturally, such households are not mainly interested in new banking technologies but only in gaining access to financial services (Buckland and Xiao-Yuan, 2008). A society with financial exclusion also suffers from unemployment, reduced production levels and lack of productivity resulting in a high debt to output ratio as evidenced in the emerging economies (Hatchondo, Martines, and Sapriza, 2007). Lessons learned from Sub-Saharan emerging economies suggest that several socioeconomic factors must be included in the formulation of monetary policy and programs besides good governance (Chibba, 2008).

#### **6.51 FINANCIAL EXCLUSION AND EFFORTS FOR FINANCIAL INCLUSION IN THE INDIAN CONTEXT**

Poor and non-poor people in many developing countries experience severe financial exclusion thereby creating obstacles for growth and reducing income inequality. Finance creates value and ensures efficient resource allocation (Beck and Demirgüç-Kunt, 2008). It is worth examining whether access to credit is a right. Access to financial services may help the poor in several ways but it may also lead to excessive indebtedness too (Hudon, 2009), a view endorsed by the planning commission of India. Sparsely populated hilly areas with poor infrastructure, difficulty

of access, lack of awareness among consumers, social exclusion, low income and illiteracy are some of the important reasons for financial exclusion in India (Throat, 2007). The Indian perspective of financial inclusion emphasizes access to financial services in three specific dimensions of credit, wealth creation and contingency management. Beyond credit, the provision of a wide range of financial services, including saving accounts, insurance, and remittance facilities are needed. Credit in itself is considered good if it is self-liquidating and is used for production of units that could be sold for a price. It also increases employment for the borrower and the entire household. The credit must address credit needs of the disadvantaged households for entrepreneurial livelihood, emergency loans, residential mortgages, and consumer loans. For the goal of poverty alleviation to be fulfilled, financial inclusion must ensure that poor people also may work towards wealth creation through savings and investment plans. Contingency planning must include retirement planning for pension benefits, insurable contingencies for health care, crop insurance and asset protection, and also some buffer savings.

6.52 The Government of India constituted a "Committee on Financial Inclusion" and the Committee submitted its final report to the finance ministry in January 2008. The committee has defined Financial Inclusion as "the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income



groups at an affordable cost." It has recommended setting up of two funds namely, Financial Inclusion Fund (FIF) and Financial Inclusion Technology Fund (FITF). The two funds have been established with NABARD which is the coordinating agency for all initiatives of financial inclusion. There are several forms of financial institutions offering micro credit. Domestic commercial banks in the public and private sector at the national level and Regional Rural Banks (RRB), co-operative banks, registered & unregistered non banking finance corporations (NBFC) and other trusts & societies at the regional level provide superfluous services to ensure total financial inclusion. While 95% of the salaried class has bank accounts, only 14% of agricultural labour force has access to similar facilities. 79% of the people in the low income group receive credit assistance from the informal market such as, money lenders. Thus, the financial system in India has at times failed to reach out to the poor and weak sections of the society mostly due to the undesirable intervention by the state as indicated by blanket moratoriums, interest subsidies, and also non-commercial interferences. The limited disbursements made by the system to the poor as rural credit for development are also seemingly not collectible thereby undermining the sustainability and potential of rural finance (Rao, Mahajan, Leeladhar, Vasimalai, Reddy, Mohan, Sriram and Vikalpa, 2005).

6.53 According to the Planning Commission of India, there are about 16,400 non-governmental organizations (NGOs) voluntarily

engaged in finding sustainable development for the poor. An earlier study undertaken in 2002 by PRIA, an International Centre for learning and promotion of participation and democratic governance in association with the Institute for Policy Studies, Johns Hopkins University had estimated that nearly 1.2 million non profit organizations (NPOs) were operating in India in 2000. These NPOs operated with about \$4 billion mostly funded by domestic households. They remained largely invisible but with widespread impact because they were private, self-governing, voluntary, and non-profit distributing (Tandon and Srivastava, 2002). Many multinational corporations are also assisting government, aid agencies and NGOs in reducing poverty through trade. Unilever, Proctor & Gamble and CEMEX are all recent examples in integrating social innovation strategies in its business operations (Stefanovic, 2007). Unilever in partnership with NGOs has created Shakti, a rural network that employs 31,000 women and sells products to rural customers in more than 100,000 villages. India has numerous national and regional programs such as, Self Employed Women's Association (SEWA), Swarnajayanti Gram Swarozgar Yojana (SGSY) and Society for Helping Awakening of Rural Poor through Education (SHARE). Our focus will be on one important dimension namely, the Self-Help Group (SHG) wherein the NGOs play a vital role voluntarily.

#### **6.54 SELF-HELP GROUPS**

While micro credit refers to credit assistance of a low magnitude, microfinance offers a broad perspective for universal financial inclusion by adding thrift, savings, insurance and other financial services to credit. The Self Help Groups (SHGs) represent a non-institutional channel of micro finance. An SHG is a registered or unregistered group of micro entrepreneurs having similarities in their social and economic background, voluntarily forming a cohesive group. The members agree to save small amounts regularly thereby pooling their savings into a common fund and their emergency needs are supported by the common fund on a mutual help basis. The group members use collective wisdom and peer pressure to ensure proper end-use of credit and timely repayment thereof, a method recognized as an effective substitute for collaterals. An individual from a weak and vulnerable group gains strength by being a part of a cohesive group. The objectives of the SHG program are to alleviate poverty, increase sustainability, reduce vulnerability, improve capacity building and help the weaker sections build assets. Increased education, better standard of living, reduced child mortality and child labor, emancipation cum empowerment of women, and communal cum religious harmony are value adding benefits to the country. Through the membership in a homogeneous team, women are able to engage in active production, embed their skills in a network for potential synergistic opportunities, become aware of

numerous government and non-government programs, and also overcome social limitations.

**6.55 Financing through SHGs reduces transaction costs for lenders and borrowers at the same time. Lenders have to handle only a single SHG account which makes it a commercially viable transaction. They do not have to handle a large number of small-sized individual accounts. Borrowers save expenses on travel and time in completing applications and supporting documents. They do not have to suffer loss of wages by missing workdays in order to get a small loan. Minimizing transactions costs of micro-payments is only one part of the task. The transaction involves a systematic investment plan (SIP) of four dollars per month by aggregation for the whole group of ten members which implies a saving of forty cents by each individual. Ten years ago, banks permitted SHGs to open bank accounts and it is time that mutual funds recognized SHGs as legitimate participants.**

#### **6.56 SHG-BANK LINKAGE PROGRAM**

The national bank for Agriculture and Rural Development (NABARD) launched a pilot project on savings and credit management in 1986 in conjunction with Mysore Resettlement and Development Agency (MYRADA). An enhanced effort came into place permanently in 1991 with the SHG-bank linkage program whereby the country's central bank advised commercial banks to consider credit assistance to SHGs to be included in the

priority sector. There is some semblance of the Grameen bank Model in the SHGs but there are several differences in terms of number of individuals in a group, affinity, freedom, amount of credit and interest rates (Chandirakala, 2008). Two models of microfinance are practiced in India. The Self-Help Group (SHG)-Bank linkage model is the dominant channel where commercial banks lend directly to SHGs formed explicitly for this purpose. This serves as a meaningful link between commercial banks and the SHGs. The second model is the Microfinance Institution (MFI) model where MFIs borrow funds from banks for onward lending to microfinance clients, many of whom form joint liability groups for this purpose. As of March 2007, more than 2.9 million SHGs were linked to banks covering a total flow of credit of about five billion dollars as shown in Table 1. Until 2003, the majority of the SHGs were located in the four states in South India but the concept is being received with success in the northern part of the country in the past five years.

6.57 More than ninety percent of SHGs happen to be groups of women and thus the system paves way for emancipation of women. Women entrepreneurs evolve and their production leads to the desired economic growth. There is ample literature available on women entrepreneurship. Johnson offers a feminine perspective and stresses on gender bias when it comes to financial exclusion (Johnson, 1999). Huge international financial institutions have successfully adapted viable business models in India as the

country's landscape offers and demands. They are engaged in promoting financial literacy, skill development, and business knowledge among the poor, particularly rural women. These institutional efforts lead to the fulfilment of several environmental and social initiatives such as water conservation, sustainability and livelihood creation (Marar, Iyer and Brahme, 2009). The level of awareness of services, utilization and satisfaction provided by supporting agencies among women entrepreneurs tends to be low according to a study in select states of Northern India (Kumar, 2008). Numerous agencies are engaged in training programs furthering skill development, motivation and managerial input understanding the successful business models but some training centers are not as successful as those at the central and state levels (Nagesh and Narasimha, 2008).

**6.58** Public sector banks and regional rural banks offer financial services to nearly 80 percent and 90 percent of credit facilities to the SHGs. The average loan per group is about \$1,200 which implies that an individual member of an SHG has an outstanding loan of \$60.

**6.59** The recovery rate for the credit facilities has been satisfactory. About 37 percent of banks reported recovery of above 95 percent under the program. Thirty six percent of banks reported recovery in the range of 80 to 94 percent while 20 percent banks had

recovery in the range of 50 to 79 percent. Only 7 percent of banks had a recovery rate of less than 50 percent.

**6.60** The concept of microfinance is very much realized in that as more than four million savings accounts have been opened for SHGs by the commercial banks but only about 2.9 million of them have obtained credits from the banks. There is a evidence of commercial banks and regional rural banks controlling about 85 percent of savings accounts opened exclusively by women SHGs.

**6.61** The Planning Commission of India is considering six major steps to be undertaken for universal financial inclusion. First, India needs an organizational structure that facilitates inclusion by promoting small banks despite their lack of viability due to high fixed costs. They must be able to provide both asset and liability products to small clients. Second is the focus on risk mitigation whereby vulnerable sections of society may afford low-cost insurance protection for life, healthcare, agricultural output and any other contingency through formation of micro-insurance firms. Third, norms pertaining to priority sector lending targets and the, use of government subsidies must be revisited and institutional changes need to be introduced including a deregulated interest rate environment. The debate whether interest rate ceilings benefit the poor produces varied results. Countries with interest rate ceilings have poor market penetration as seen in Tunisia and Colombia but those without ceilings have

better penetration as evidenced in Bolivia and Morocco (Helms and Reille 2004). Fourthly, the use of technology must become prevalent to reduce the effective cost of delivery of financial products. The Boston Consulting Group report estimates the cost of funds to be 9 percent, provision for bad debts is 10 percent and the combined costs of consumer acquisition, transaction and operation cost is 13 percent for the weaker sections thus making financial services to be unprofitable. Overall improvement of infrastructure for financial inclusion and the propagation of financial literacy are the last two items for implementation.

6.62 Though we have witnessed the decline of government-funded institutions in the international sphere, cooperatives have to combat financial exclusion. International and public sector organizations still can enhance the ability of co-operatives so that their members may have access to a variety of financial services (Rogaly, 1998). Research on banking mainly examines only the banking needs of core customers but, the views of people experiencing financial exclusion remain always unknown (Panigyrakis, Theodoridis, and Veloutsou, 2002). As of now, the SHGs are able to serve nearly 60 million people and the task of bringing the remaining 180 million people still living below poverty line is a daunting task. Seeking relief from problems and providing welfare is the primary goal of the SHGs and the success thereof would lead to a strong community development ensuring eradication of social evils in the environment. Sustainable



systems development and the integration of all sections would be the ultimate benefits for India.

### **6.63 Payments and Inclusion: From Branchless Banking to Bankless Banking**

For many governments, financial inclusion is an important element of policy and it is sensible for both businesspersons and technologists to focus on ways to support this policy strand and see it implemented effectively. In the U.K., there is a Financial Inclusion Taskforce to oversee progress, the Treasury has a "Payments and Inclusion Team" and while financial inclusion is not a statutory obligation on the Financial Services Authority (FSA).The government's 2004 report on Promoting Financial Inclusion highlighted some of the costs of exclusion:

- \* Higher charges for basic financial transactions and credit. The lack of access to a bank account means that certain financial transactions such as money transfer and cheque cashing may be more expensive;

- \* No access to some products and services. Many services, such as contract mobile telephones, require a bank account for regular direct debits;

- \* A lack of security in holding and storing money. Operating solely on a cash budget leaves people more vulnerable to loss or theft;

\* **Barriers to employment, because a bank account for receipt of wages is a basic requirement for some employers; and**

\* **Entrenching exclusion. Having no formal banking or credit history at all can be as much of a disadvantage as an impaired credit history in accessing certain financial services.**

**6.64 Unfortunately, life (and government policy) is rarely simple. The law of entirely predictable consequences means that there is a growing tension between the policy of financial inclusion and the policy of financial exclusion (otherwise known as anti-proceeds of crime, anti-money laundering, anti-terrorist financing and the like). This tension leads to problems that are not resolvable by technologists, but the technologists can help to inform next generation policy by highlighting them.**

**6.65 It's not like such products do not exist anywhere. NZ Post has been distributing what sounds like an excellent product, pretty similar to pre-paid Visa cards distributed by the post offices in Italy. The pre-paid card lets anyone make anonymous purchases over the web and is encouraging more people to shop online. NZ Post has marketed the card primarily as an alternative to gift vouchers or giving cash, branding it as the Prezzy Card. To buy online (about 10% of the transactions), customers key in the number and expiry date on the card and use "prezzy card holder" into the name field, if required. Yet "fears are being voiced" that**

the cards could aid criminals and terrorists, and the regulators are being asked to look at the product.

6.66 Any further tightening of money transfer rules is pointless as it will become impossible (as opposed to very difficult) for the vast majority of ordinary people wishing to receive money transfers to comply, particularly with the Customer Due Diligence (CDD) and Know Your Customer (KYC) requirements. This achieves nothing other than to force such people to continue to use informal networks with high social costs and less of an audit trail.

6.67 We have to find a much better balance: It's all very well to perpetuate the "if you've nothing to hide, you've nothing to fear argument" for tracking and tracing every single miniscule transactions, but the drag that this imposes on the economy may well be unacceptable (setting aside any other moral concerns). We need a risk-based approach, where regulators set reasonable thresholds and focus on the areas of major risk instead of holding back the whole cash replacement industry, not misguided attempts to hold back nascent industries. The Fraud Advisory Panel, set up by the Institute of Chartered Accountants in England and Wales, has said legal loopholes are exposing virtual world users to "a growing risk of theft and deception" (although they do go on to note that the dangers are "hypothetical"). They even recommend treating virtual currencies like the Linden Dollar (the currency in Second Life) as "real money", although quite what the

boundary between real and virtual actually means is not clear. The Panel's report also recommended that virtual world operators like Linden Lab to report suspicious financial transactions, just as for real-world banks and financial institutions, thus adding to the vast number of Suspicious Transaction Reports (STRs) filed every day.

#### **6.68 PIGGY BANK IN THE MIDDLE**

Putting cards and the Internet to one side for a moment, another great boon to terrorists (or, at least, terrorists who have never heard of 500 euro notes) will be mobile payments. Rachel Ehrenfeld, founder of the Terror Finance Blog calls the hook-up between the GSMA and MasterCard a "terrorist dream". David Nordell, another finance terror commentator, says, "Person-to-person transfers via mobile phones will be almost anonymous, and completely uncontrollable unless the regulators intervene and block these new services until ways are devised to track the flow of funds". (Whereas in the current system, people can use utility bills they printed out themselves and trivially-forgable documents to open bank accounts.)

**6.69** The worry is that "the m-payment process can leave little to no audit trail; perhaps, two mobile-phone numbers; the amount; and short and simple instructions on transmission and reception". So law enforcement officials have only the mobile phone numbers (and therefore the locations) of the criminals. The argument that international criminals would use schemes such as these to move

money illegally it is, fairly thin. Why would they go to the trouble of using a superficially anonymous but ultimately traceable prepaid instrument (and in the case of a mobile phone in instrument whose location is known with high degree of accuracy) instead of the cheap, convenient and highly effective alternative of the 500 note itself? Which is, of course, precisely what they do. When the Mexican police made last year's biggest-ever drug bust, they found more than \$50 million in cash. Similarly, when the British police broke up a major money-laundering gang, they found that "hundreds of thousands of pounds in 'dirty cash' was being ferried up the M1 on an almost daily basis". Not top-up vouchers, not frequent flier miles, not prepaid cards, but cash.

- 6.70 Somehow, public policy needs to be at once holistic (in the sense that it balances all of the stakeholders legitimate concerns) but also specific enough to frame enforceable laws that will actually do some good. The benefits to society as a whole from farmers in sub-Saharan Africa being able to open mobile payment accounts without conventional identification documents and therefore participate in the wider marketplace greatly outweigh any risks that may result from the less stringent approach to AML that this implies. In fact, assuming that the maximum balance and maximum turnover bounds for such accounts are set realistically, it is difficult to imagine what any practical risks might be: If sending the odd [euro] 20 from Darfur to Dar-es-Salam really is a

terrorist modus operandi, then they ought not to prove insurmountably difficult to contain.

#### **6.71 SIMPLIFY AND WIN**

The sky is not going to fall in because of low-value pre-paid or m-payment instruments and we are not going to help law enforcement find needles in haystacks by making the haystacks even bigger. What we need to do instead is to help the policymakers to find the right place to strike the balance between financial inclusion and exclusion, between monitoring and intrusion, between "security theatre" and worthwhile activities.

**6.72 Any prepaid instrument with a maximum daily transfer of 500 and should be regarded as cash and regulated globally much as the FSA regulates Electronic Money Issuers (ELMIs) in the U.K. but with higher limits on both balances and annual transfers. In Europe, there is to be an additional chapter in the Payment Services Directive (PSD) to create a framework for electronic money institutions (alongside the frameworks for credit institutions and payment institutions) to perhaps this could form the basis of reciprocal international agreement.**

**6.73 In other words, anyone should be able to wander into a Post Office or wherever and buy a prepaid card with 500 loaded on to it and then do what they like with it: use it on eBay or in Marks & Spencers, send it to a grandson at University or back to the old**

country as a remittance. The immediate benefit to the poor (who lose some 20% of their annual remittances to charges or fraud) would surely outweigh any marginal convenience offered to drug dealers. And if an international terrorist were to go round Post Offices buying a pre-paid card in each one and then sending 100,000 worth of cards to their uncle up the Khyber Pass, it would cost them a lot more than sending 500 notes (and the Post Office might well lose them anyway).

6.74 More realistic limits for KYC/AML and increasing competition in the provision of mobile payment services would bring (literally) hundreds of millions of people into the financial system would deliver a significant net welfare increase and make a huge difference to the daily lives of some of the poorest people.

6.75 ACCESS TO FINANCE AND SMALL ENTERPRISE GROWTH:  
EVIDENCE FROM EAST JAVA

The centrality of micro and small enterprises (MSEs) in the process of economic development is by now widely recognized and essentially beyond debate. While countries are heterogeneous in the regard, it is not uncommon for such businesses to employ one quarter of the working age population in developing countries. Estimates of the contribution of the sector to GDP are probably less reliable, but typically fall in the 10% to 15% range.<sup>1</sup> In addition, the MSE sector may serve as an entrepreneurial training ground in which tomorrow's business

leaders can find success and gain valuable experience. As the role of the MSE sector has become clearer, policy makers in developing countries, as well as donors and others organizations, have expended increasing amounts of scarce development resources on MSE support and promotion. A tremendous and increasing amount of attention has been paid in recent years to the legal and regulatory framework that may constrain MSE expansion. Similar attention has been given to programs promoting the training of entrepreneurs and workers that may enable MSEs to grow. Still, although many programs and policies have been implemented in these areas, perhaps even more attention has been paid to the area of micro and small firm finance. The success of the Grameen Bank in Bangladesh and its clones all over the world, as well as the awarding of the 2006 Nobel Peace Price to Grameen Bank founder Muhammad Yunus have made micro and small firm finance one of the principal development topics of the day. According to a recent special report in the Economist, microfinance institutions worldwide may number in the hundreds of thousands. (The Economist, 2005).

6.76 Indonesia is certainly no exception to these trends. The Government of Indonesia, in conjunction with donors and nongovernmental organizations, has been more diligent than most developing country governments in promoting such programs, and by most accounts a higher proportion of MSEs in that country has received loans from formal financial institutions



than is the case in many places.<sup>3</sup> Recent estimates claim that the government of Indonesia regulates some 60,000 microfinance institutions (The Economist, 2005). In recent years it has been taken as a given that poor access to formal credit sources constrains MSE growth. However, for the most part, empirical evidence supporting such an assumption has been weak. Nevertheless, millions of dollars have been spent on programs that seek to mitigate this perceived obstacle. Typical examples include programs that involve subsidized credit for certain MSEs, programs that encourage banks to lend to MSEs by providing repayment guarantees, and programs such as the Grameen Bank that channel loans specifically to MSEs.

- 6.77 This seeks to address empirically the assumption that firms with access to formal credit sources are more likely to grow as a result. Certainly, such an assumption is intuitively appealing, and there is at least some empirical support for it. However, perhaps instead MSEs tend to grow because of factors not related to credit, such as entrepreneurial skill or the presence of human capital, opportunities in the sub sector in which the firm operates, etc. Citing evidence from Indonesia, Berry et al. (2001, p. 378) report "firms that did and did not receive assistance show similar patterns of development, suggesting that other factors explain firm growth." As Morduch (1999, p. 1598) asks in his review of the microfinance literature, "[w]ould the borrowers have done just as well without the programs?"

**6.78 Most empirical work on the determinants of firm growth is based on Jovanovic's (1982) 'learning model' and its extension by Pakes and Ericson (1998). These allow managers to influence their efficiency level via human capital formation. These theories predict that firm growth will be inversely related to initial firm size and to firm age, and directly related to the level of human capital embodied in the firm's entrepreneur. Examples of empirical research that generally support the Jovanovic (1982) and Pakes and Ericson (1998) models include Bilsen, et al. (1998), Liedholm, et al. (1994), McPherson (1995), McPherson (1996), and Parker (1994). With respect to the effects of credit on a firm's growth performance, much of the available evidence comes in the form of descriptive statistics from national surveys of MSEs. Typically, these studies compare the average growth rate of firms that had received credit with that of firms without access to credit. The obvious disadvantage of this simplistic approach is that it does not control for other factors. Daniels and Ngwira (1993), Parker and Torres (1994), Minot (1996), USAID (1998), and Ebony Consulting International (2000) are examples of this approach, and each finds that access to credit leads to better firm growth prospects for firms in various developing countries.**

**6.79 When efforts are made to control for other factors by use of regression analysis, results are more ambiguous. Brown et al. (2003) and Hansen et al. (2004) find evidence that MSEs with access to credit grow more rapidly. However, Daniels and Mead**

(1998) and Johnson et al. (2000) find that credit is not a significant determinant of growth, and Cabal (1995) reports that access to credit may actually retard the growth of MSEs in the Dominican Republic. Few of these earlier studies examines the possibility that access to credit may be endogenous, although Parker and Torres (1994, p. 23) recognize the problem indirectly. Brown et al. (2003) recognize it as a potential problem with their results, while Morduch (1999) points out that failure to address the endogeneity of credit may explain the contradictory findings in earlier research. Wynne and Lyne (2003) and Banerjee and Duflo (2004) are representative of the rare attempts in the literature to address endogeneity. Wynne and Lyne (2003) use a two stage approach, but because the credit variable is not a regressor in their growth regression, their conclusion that poor access to credit constrains growth can only be taken as evidence of an indirect linkage. Banerjee and Duflo (2004) attempt to address endogeneity directly. Their panel of data comes from a natural experiment setting. Their analysis employs a difference-in-difference-in-difference approach, and they conclude that access to credit does lead to better firm-level performance. This paper adds to this small literature involving the examination of the influence of credit on growth while accounting for unobservable characteristics of entrepreneurs and their firms. Such factors (for example, entrepreneurial talent and zeal, or various characteristics of the community in which a given firm may be located that affect its

growth prospects) are likely to be important, and the failure of earlier research to control for these casts some doubt on the validity of their findings. As part of the analysis, we will also test for the endogeneity of credit and growth. The purpose of this paper is to examine the effect of access to credit on MSE growth in a statistically rigorous manner. We make use of the discrete factor method, a full information maximum likelihood technique that allows us to control for unobservable characteristics of firms and their entrepreneurs that may affect firm growth. This method is ideally suited for this task, and to our knowledge this paper represents its first application in the area of small enterprise growth. We take advantage of a data set involving more than 800 small businesses in Indonesia collected as part of a survey in East Java in 2003.

## **6.80 DATA AND ESTIMATION**

### **Sampling Methods**

The data were collected over a two-month period in 2003 as part of a survey of 1,266 small businesses in East Java.<sup>4</sup> In general, collecting representative data on micro and small firms in developing countries is complicated by the fact that there exists no comprehensive list of such businesses from which to draw a random sample. Because no sampling frame exists, the survey employed a stratified cluster sampling approach. In particular, lists of rural and peri-urban areas (kabupaten) and urban areas

(kotas) with high concentrations of small business activity were constructed in consultation with experts employed in the local offices of the national statistical office (Badan Pusat Statistik). From these lists some 26 areas in kotas and 23 in kabupatens were randomly selected.<sup>5</sup> In each selected area, or cluster, an enumerator visited every business or dwelling, and those meeting the definition of small business (five to 19 employees including any working owners<sup>6</sup>) were enumerated. Because in some cases data on certain key questions could not be gathered, usable information for the econometric work that is described in the following sections could only be collected in 858 cases.

#### 6.81 Estimation Equations

Given the previous theoretical and empirical work, we propose a two-equation system. In equation (1), firm growth is described as a function of firm age, firm size, human capital embodied in the manager/owner and in the firm's workers, whether the firm has ever received a loan from a formal financial institution (and if so how long ago) and various other characteristics of the firm. This latter category includes the sector in which the firm operates (e.g., food and beverage production, retail, et al.), whether the firm regularly sells products on government contracts, and whether the firm operates in an urban area. That is,

$$\text{GROWTH} = F(\text{CREDIT}, \text{AGE}, \text{SIZE}, \text{HUMANK}, \text{OTHER}) + \varepsilon^{\text{sup}} c^{\text{sub } i} \quad (1)$$

In equation (2), whether or not the firm has received a loan is represented as a function of the same exogenous variables in (1) as well as a variable that is correlated with the probability of being awarded a loan, but uncorrelated with growth. In the present case, the instrument to be employed is TITLE. This is a dummy variable taking on the value of one if the owner has formal title to land or a building. In Indonesia, such title serves as collateral, and is very important in qualifying for a loan. Specifically,

$$\text{CREDIT} = F(\text{AGE}, \text{SIZE}, \text{HUMANK}, \text{OTHER}, \text{TITLE}) + \varepsilon^{\text{sup}} c^{\text{sub}} i^{\text{(2)}}$$

There are several assumptions one can make regarding the error terms in these equations, leading to different estimation methods. These assumptions and methods are discussed in the subsequent section. It should be noted that there exists the possibility of sample selection bias in these data. That is, we do not observe businesses that have not survived, and it is possible that this introduces bias into our estimates. Still, using a broadly similar data set from sub-Saharan Africa, McPherson (1996) finds no evidence of sample selection bias in the growth equation. In addition our data do not permit us to consider establishment bias.. That is, imperfections in financial markets may determine which entrepreneurs are able to establish businesses. Finally, our definition of small business (5 to 19 employees at the time of the survey) necessarily excludes businesses that were in the small

business category at some point in the past and shrank to less than 5 workers, as well as businesses that were small at some point in the past but grew to sizes larger than 19 by the time of the survey.

#### **6.82 Description of the Data**

Descriptive statistics on these cases can be found in Table 1. GROWTH, which is the endogenous variable in which we are principally interested, is defined as the average annual percentage growth rate in the number of employees<sup>8</sup> between 1998 and the time of the survey in 2003.<sup>9</sup> Although it would be ideal to measure firm-level growth in terms of assets or revenues, growth of employment is most often used since reliable data are more commonly available and reliable.<sup>10</sup> For the firms in the sample, this variable averages 5.7%, but varies over a considerable range. In particular, one firm in the sample shrank by an average of 18.4%, whereas another firm averaged over 200% growth per year. Indeed, the average is to a large extent being driven by a relatively small number of rapidly growing businesses. 184 (or 21.4%) of the firms in the sample shrank, and another 322 (37.5%) stayed the same size. Among the 352 firms that did grow, the average annual growth rate was 17.5%.

**6.83** The second variable that may be endogenous in the system presented above is CREDIT, a dummy variable that takes on a value of one if the business had received one or more loans from

a formal financial institution, and zero otherwise. As Table 1 indicates, 47% of businesses in the sample reported having received at least one such loan. It may also be important to control for the amount of time that has elapsed since the business last received a loan, since loans received many years in the past may not affect more recent growth. **TIMESINCE** is defined as the number of years since the business last received credit from a formal financial institution, conditional on having received such a loan.

**6.84** In addition to **TIMESINCE**, the exogenous variables in the system can be grouped into several categories. First, the sector in which a business operates is modeled by means of a series of dummy variables. For example, 39% of businesses are retailers, another 14% are engaged in food and beverage production and processing, and 12% produce or process wood or forest based products.<sup>11</sup> As discussed above, growth and probability of receiving a loan may also be affected by the size of a business and its age. For the present sample, the average initial size of firms (in terms of numbers of employees) is 5.4 and at the time of the survey the average firm had existed for 18.4 years.

**6.85** Another group of variables attempts to control for human capital embodied in workers and in owners at the time of the survey.<sup>12</sup> **WKTRAIN** is a dummy variable that takes on a value of one if at least some of the workers have formal training. A series of



dummy variables models the educational level of workers in the firm: JRSECED equals one if most workers have an education through the junior secondary level; SRSECED equals one if most workers have completed at least senior secondary schooling (the omitted category is firms in which most workers have primary or lower education). Regarding owners, 10.1% of businesses in the sample are owned exclusively by women: FEMOWN is a dummy variable that accounts for this. EXPERIENCE measures the number of years of experience the owner has had in the present business or in similar work.

6.86 Several other variables may also explain firm-level growth. A small proportion of businesses regularly have government contracts. Such firms might be expected to grow more rapidly, either because of the steady revenue streams from such contracts, or because of other benefits a close relationship with the government might imply. Some 20% of businesses are located in urban areas. These businesses may be more likely to receive credit given that banks and other financial institutions are concentrated in urban areas.

6.87 Finally, as noted above, in order to identify the system, TITLE is included in the credit equation. This variable measures whether or not the owner of the business also holds formal title (certificate) to land or buildings that could be used as loan collateral. This variable should be correlated with CREDIT, but not with

**GROWTH.14** In the present sample, 81% of businesses report ownership of such collateral properties.

#### **6.88 THE DISCRETE FACTOR METHOD**

In estimating equation (1) above, one could simply employ ordinary least squares (OLS), treating CREDIT as an exogenous variable. This would imply that the error term in equation (1) is normally distributed and that the covariance between that error term and the credit variable is zero. However, if in fact CREDIT is endogenous, OLS estimates will be biased and inconsistent. One possible solution to this problem would be to employ a two stage least squares (2SLS) approach. However, 2SLS assumes that the correlation between error terms in the equations of the system is distributed multivariate normal. If in fact the error terms are not distributed in this manner, 2SLS estimates will be inefficient.

**6.89** To jointly estimate the two equations specified above and to remove the unobserved heterogeneity biases, we employ a discrete factor method similar to that described in Heckman and Singer (1984), Akin and Rous (1997), and Mroz (1999). The technique is full information maximum likelihood, but rather than making a multivariate, parametric assumption about the error term correlation (e.g., multivariate normal), we estimate a joint, discrete, multivariate distribution that approximates the true distribution of the unobservables responsible for error term correlation. To account for site and firm specific unobservables

correlated with the error terms, we estimate separate firm and site level distributions.

6.90 To facilitate this estimation technique, we expand the error terms and assume the following mixed error structures respectively for the equations for firm growth and loan acceptance (credit):

where

$g$  indicates elements of the error term in the growth equation,

$c$  indicates elements of the error term in the credit equation,

$\varepsilon^i$  is each equation's disturbance term,

$\omega^j$  are the factors that make up the part of the distribution of unobserved firm level variables that influence each equation. These are random variables that follow a discrete multivariate joint distribution.

$\omega^k$  are the factors that make up the part of the distribution of unobserved site level variables that influence each equation. These also are random variables that follow a discrete multivariate joint distribution.

$v^i$  is the portion of each disturbance term that is independent across cross sections.

6.91 The site and firm level distributions are made up of the  $\omega$  and corresponding probability weights, all of which are estimated with

the rest of the parameters in the model. The site-level factors,  $\omega^k$ , in each equation are allowed to be correlated across equations. Similarly, each equation's firm level factors,  $\omega^j$ , are also correlated across equations.  $v^g$  is assumed to be distributed normally and  $v^c$  is assumed to be distributed logistically, as in the standard logit specification.

6.92 The error term correlation allowed with the discrete factor method controls for any unobserved heterogeneity problems caused by endogeneity, and the cluster based sample design used for collecting the data. The likelihood function is available from the authors upon request. The parameters in the model are identified technically by the nonlinear functional form of the model. However, the model gains further identification from the inclusion of the variable TITLE in the credit equation which, for theoretical reasons, does not appear in the growth equation.

### 6.93 RESULTS

A Hausman specification test indicates that CREDIT is in fact exogenous, and as a result we estimate equation (1) by OLS. While several notable results emerge, we are especially interested in the finding that while the estimated coefficient on CREDIT is positive, it is not statistically significant. In other words, when we apply standard estimation techniques to these data we do not find compelling evidence that access to formal credit significantly contributes to firm growth. However, the OLS method does not

allow for unobserved site specific and firm specific effects. In this regard, the discrete factor method is more efficient than OLS.

6.94 First, the significance of the discrete factor parameters suggests credit and growth are endogenous. This is somewhat surprising given the results of the Hausman test and may suggest the less restrictive distributional assumptions regarding the error structure made in the discrete factor method may be more appropriate for this analysis.

6.95 Table 2 contains information on the site and firm level parameters mentioned in equations (3) and (4) above. Considering first the site level unobservables, there seems to be three sorts of sites in which firms in this sample exist.<sup>15</sup> Considering the estimated site level parameters presented in Table 2 ( $\Omega^{k1}$ ,  $\Omega^{k2}$ , and  $\Omega^{k3}$ ), we observe that firms in the second and third sorts of sites grow more rapidly than firms located in the first sort of site. This implies that there is one or more unobserved characteristic of these sites that make growth more likely. While by definition we cannot know what characteristic or characteristics might be involved, it may be useful to speculate. For example, perhaps certain communities have enjoyed stronger economic growth than others, which has not affected credit access but has allowed more rapid firm level growth.

**6.96** There are in addition three types of firms when we group by unobserved firm level characteristics.<sup>16</sup> The relatively small number of firms of the second type grows dramatically faster than firms of the first type. What might explain these results? After we control for observable characteristics of firms, workers, and owners, there is evidently some characteristic particular to firms that makes some more likely to grow than others. For example, it might be reasonable to suppose that entrepreneurial talent or zeal has a strong effect on growth prospects. Similarly, there is a substantial (and somewhat controversial) literature on the relationship between cultural background and entrepreneurial talent. If there are certain ethnic groups whose cultural backgrounds make them especially adept entrepreneurs, this might also be an unobservable characteristic that is leading some firms to grow independent of access to credit.

**6.97** Regarding the observable characteristics of firms, as a general rule the results from the OLS and the discrete factor models differ mainly in terms of the magnitudes of the coefficients. Sector is an important determinant of growth. In particular, businesses engaged in textiles, wood, and metalworking sectors grew significantly more slowly than retailers. As expected from theory and earlier literature, both firm size and firm age are inversely related to firm growth.

**6.98** Table 2 also reveals that human capital embodied in a firm's workers appears to have significant effects on that firm's growth prospects. Firms in which the typical worker has had formal training have average annual growth rates that are about 2.3 percentage points higher than other firms. Similarly, having a better-educated workforce increases a firm's growth rate. With respect to owner characteristics, firms with female owners do not have significantly different growth prospects from firms with some male owners. Interestingly, an additional year of owner experience lowers the average annual growth rate by 0.08 percentage points. While this is a rather small marginal effect (a business run by an owner with 30 years. experience would have a growth rate about 1.6 percentage points lower per annum than an otherwise identical business run by a proprietor with only 10 years of experience), the sign is unexpected.

**6.99** Finally, the discrete factor model also provides no evidence that access to credit has an appreciable effect on a firm's growth rate. That is, once we control for unobservable characteristics of firms as well as other observable factors, credit does not make growth any more likely. Evidently, growth is determined by the sector in which a firm operates, its initial size, its age, and certain unobservable characteristics of the firm and the community in which it operates. This suggests that factors such as entrepreneurial zeal may be important for firm growth, but that access to credit is not.

## 6.100 IMPLICATIONS AND CONCLUSIONS

Given the importance of the micro and small enterprise sectors to GDP and to national employment in most developing countries, it is important to consider what sorts of policies might be undertaken to foster expansion of this sector. One aspect of this is growth of existing MSEs. Our research suggests several lessons that may be of use to researchers and policy makers. First, from a statistical point of view it is important to account for unobserved heterogeneity of firms and the sites in which firms exist. Our results show that this sort of heterogeneity is statistically important in the case of East Java, and it seems likely that other data of this nature from other countries would as well. Simple regression seeking to explain firm growth may yield misleading results.

In addition, our results suggest that policy makers' enthusiasm for small firm credit could be misguided. While our data have some limitations, we see no evidence that firms with access to credit grow more rapidly than those without such access.<sup>17</sup> Instead, firms in this sample seem more likely to grow as a result of the sector in which they operate, their initial size and age, human capital that has accumulated in firms, workers, and unobservable characteristics of firms and the communities in which they are located. The point is that firms that grow may do so for other reasons than access to formal credit. If our results



are correct, they suggest that donors and policy makers might better serve the goal of expansion of existing small enterprises by reallocating resources towards worker training programs, and towards improvements in the national education system.

Additional research on this question is certainly called for. For example, we do not know whether these results generalize to settings outside of East Java. In addition, the extent to which access to informal credit sources is a substitute for formal sources would add to the discussion. Future research may also establish whether access to formal credit sources helps the growth prospects of firms in size categories outside the five to 19 worker categories considered here.

## **CHAPTER-8**

### **Data Analysis and Hypothesis**

### **Testing**

## **CHAPTER-7**

### **Data Analysis and Hypothesis Testing**

- 8.1 The Data Analysis and hypothesis testing were carried out using the computer software package SPSS version 14.0. The relevant results are enclosed in the appendix
- 8.2 The data was collected over a period of one year on 999 respondents from Gulbarga District which consists of 10 blocks namely, Gulbarga, Afzalpur, Chittapur, Shorapur, Shahapur, Jewargi, Yadgir, Aland, Sedam and Chincholi. The demographic data has been classified on the basis of their occupation, age, place, gender, total number of family members, education, income per month and marital status.
- 8.3 The variable occupation was classified mainly into 3 categories namely, Agricultural Labour, Self employed and others. On the basis of the frequencies, it was observed that out of 999 respondents, 563 respondents were agricultural labourers and 203 were self employed and 233 respondents had other kind of occupation excluding agriculture.
- 8.4 The variable age was entered as it is as disclosed by the villagers. According to this, there were 40 people in the age of 23, 41 in the age group of 29, 36 in the age group of 31, 81 at the age of 32, 41 at the age of 34, 40 at the age of 35, 82 at the age of 38, 40 at the

age of 41, 112 at the age of 43, 40 at the age of 44, 82 at the age of 45, 81 at the age of 50, 161 at the age of 54, 81 at the age of 58, and 41 respondents at the age of 65. The data reveals that there were more people between the age group of 43 to 54.

- 8.5** The next variable place was segmented in the following manner.
- Respondents residing in Afzalpur were 8.1% of the total population.
- Respondents from Aland were also 8.1% of the total population.
- Chincholi and Chittapur village consisted of 12.2% of the population.
- Gulbarga block consisted of 12.1% of the population.
- The proportion of population from Jewargi was 8%.
- Sedam had 7.7% in the total population.
- Shahapur consisted of 11.2% in the population.
- Shorapur had 11.2% of respondents in the total population.
- Yadgir consisted of 12.2% of respondents in the sample.
- 8.6** Gender of the respondents was also one of the important variable which was considered in the study. The male sample size covered in the study was 674 and female sample size was 325.
- 8.7** The study mainly targets the population which comes under below poverty line. Therefore the number of people in the family tends to be more. The study reveals that 244 households have 5

members in their family being the highest number and 240 respondents said that their family consists of 7 members.

8.8 According to the research, it has been found that 55.9% of the households were literate (those who had elementary education) and 44.1% of them were illiterate (those who did not have any formal education).

8.9 Out of 999 respondents who were covered in the study, all the respondents had the income of less than Rs.3600 per month.

8.10 Out of the 999 respondents surveyed 563 were married, 203 were unmarried, 81 members were widowed, and 152 were separated.

**Statistical Data Analysis:**

8.11 **Analysis of Mean Scores and Standard Deviation:**

The cross tabulation of dependent and independent variables gives the following results:

Reasons for opening bank account	Statistics	Deposit of money In the Bank	Frequency of Deposit	Frequency of withdrawals	Usage of Bank account
Saving Money	Mean	1.85	5.49	6.31	4.07
	N	204	204	204	204
	Std.Deviation	.355	1.296	1.696	.899

<b>Business</b>	<b>Mean</b>	<b>1.44</b>	<b>3.66</b>	<b>5.20</b>	<b>4.44</b>
	<b>N</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
	<b>Std.Deviation</b>	<b>.501</b>	<b>2.172</b>	<b>1.641</b>	<b>.501</b>
<b>To take loan</b>	<b>Mean</b>	<b>1.99</b>	<b>6.00</b>	<b>7.00</b>	<b>3.66</b>
	<b>N</b>	<b>697</b>	<b>697</b>	<b>697</b>	<b>697</b>
	<b>Std.Deviation</b>	<b>.084</b>	<b>.000</b>	<b>.000</b>	<b>1.135</b>

From the above table, it can be analysed that out of the sample of 999, 697 people have opened the bank account mainly to avail the loan facility provided by the banks and only 204 have opened the bank accounts for saving money in the bank.

**Correlations:**

**8.12 Correlation analysis deals with the association between two or more variables.**

The correlation chart has been drawn below for the present study:

<b>Variable</b>	<b>Statistics</b>	<b>Access to bank account</b>	<b>Deposit of money</b>	<b>Withdrawal of money from bank account</b>
<b>Having a bank Account</b>	<b>Pearson Correlation</b>	<b>1</b>	<b>.058</b>	<b>.054</b>
	<b>Sig (2 tailed)</b>		<b>.066</b>	<b>.089</b>
	<b>N</b>	<b>999</b>	<b>999</b>	<b>999</b>
<b>Deposit of money in the bank account</b>	<b>Pearson Correlation</b>	<b>.058</b>	<b>1</b>	<b>.924</b>
	<b>Sig (2 tailed)</b>	<b>.066</b>		<b>.000</b>

	<b>N</b>	<b>999</b>	<b>999</b>	<b>999</b>
<b>Frequency of withdrawal</b>	<b>Pearson Correlation</b>	<b>.054</b>	<b>.924</b>	<b>1</b>
	<b>Sig (2 tailed)</b>	<b>.089</b>	<b>.000</b>	
	<b>N</b>	<b>999</b>	<b>999</b>	<b>999</b>
<b>Type of account</b>	<b>Pearson Correlation</b>	<b>.367</b>	<b>.296</b>	<b>.333</b>
	<b>Sig (2 tailed)</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>
	<b>N</b>	<b>999</b>	<b>999</b>	<b>999</b>
<b>Reasons for opening the account</b>	<b>Pearson Correlation</b>	<b>.367</b>	<b>.296</b>	<b>.333</b>
	<b>Sig (2 tailed)</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>
	<b>N</b>	<b>999</b>	<b>999</b>	<b>999</b>

From the above analysis, it can be said that all the dependent and independent variables are positively correlated. There is a positive relationship between access to bank account and usage of bank accounts. In case of some variables, there is a perfect positive correlation.

### 8.13 Regression:

The regression is the measure of the average relationship between two or more variables in terms of the original units of the data.

Regression analysis attempts to establish the 'nature of the relationship' between the variables- that is, to study the functional relationship between the variables and thereby provide a mechanism for prediction or forecasting.

The following table clearly explains the regression lines of the study.

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	.407 <sup>a</sup>	.166	.165	1.061

a. Predictors: (constant), Have you opened the bank account?

**Coefficients<sup>a</sup>**

Model	Variable	Unstandardised		Standardised	T	Sig
		B	Std.Error			
1	Constant	1.581	.168		9.424	.000
	Have you opened the bank account	2.209	.157	.407	14.082	.000

a. Dependent variable: when did you operate your account last?

The above table clearly explains that there is a average relationship between both the dependent and independent variables.

**8.14 Hypothesis Testing:**



1. There is no significant difference between financial exclusion and lack of awareness by rural households.
2. There is no significant difference between financial exclusion and institutional negligence like banks and other financial institutions.
3. There is no significant difference in household perceptions about the formal and informal forms of finance.
4. There is no significant difference between access to a saving account and usage of account.
5. There is no significant difference between Self Help Group savings and chit fund savings by households.
6. There is no significant difference between the period of opening of account and period of usage of that account.
7. There is no significant difference between occupation and usage of bank accounts.
8. There is no significant difference between occupation and the type of account held by the individuals in the banks.

**Analysis based on hypothesis testing:**

**8.15 Hypothesis 1:**

**T- Test :**

**There is no significant difference between financial exclusion and lack of awareness by rural households. The hypothesis states that financial exclusion and lack of awareness is not specific in nature. But the application of statistics makes us to believe that financial**

exclusion mainly happens due to the ignorance on the part of the BPL families.

In the case of independent sample t test (Levene's Test for Equality of Variances), the F value is 2.035 and a P-value (significance) of .155 and the value of the test statistic t, is -.698 standard errors. The sample mean is extremely far from the hypothesized value. Therefore null hypothesis needs to be rejected.

To the right of the Levene test results, there are two rows of output for the variable, corresponding to equal and unequal variance conditions. Since we assume equal variance for this test, only top line is considered. The test statistic t equals -.698. The sign of the test statistic makes the alternate hypothesis true. Since the P-value here is approximately 0, the 1 tailed P-value is also about 0. Therefore, null hypothesis is rejected in favour of alternate hypothesis. This means that there is a significant difference between financial exclusion and level of knowledge by the households of BPL families.

The Kolmogorov- Smirnov test assesses whether there is a significant departure from normality in the population distribution for each of the groups. The null hypothesis states that the population distribution is normal. The test statistics range from .540 to .541 and the P values (significance) are all .000. Since these P-values are less than the statistics, the null hypothesis is

rejected and concludes that these data do not violate the normality assumption.

#### **ANOVA:**

In the case of one way ANOVA, the test statistic (F) equals .700 with a corresponding P-value of .403. In this test, we would reject the null hypothesis and conclude that these data provide substantial evidence of a least one significant difference in mean bank openings among the three groups of households.

The Univariate ANOVA output consists of several parts (descriptive statistics, Levene's test of equality of variances, and the tests of between subjects effects).

Levene's test for homogeneity of variances assesses whether the population variances for the groups are significantly different from each other. The Levene statistic (F) has a value of 1.346 and a P-value of .243. Since F is greater than the P value, we reject the null hypothesis.

In the case of tests between subjects effects, the F value of occupation is .635 and the table value is .530. Since the F value is greater than the table value, the null hypothesis is rejected.

#### **Regression:**

The regression output consists of four parts: a table of variances in the regression equation, a model summary, an ANOVA table and a table of coefficients.

Regression equation is taken as a model that explains or predicts variation in a dependent variable. The table of variables Entered

**/Removed lists the independent variable in the model. It is possible to have several independent variables, and we may want to examine regression models that contain different combinations of those variables. Thus, SPSS refers to variables having been entered into or removed from a model, and anticipates the possibility that there are several models within a single analysis. In this case, there is just one variable: operation of bank account by the rural households.**

**The regression procedure via the least squares method of estimation, gives us the line that fits the points better than any other.**

**The second standard part of the regression output- the model summary reports a statistic that measures “goodness of fit”. The statistic is called the coefficient of determination, represented by the symbol  $r^2$ . It is the square of  $r$ , the coefficient of correlation which is also covered here.**

**$R^2$  can range from 0.000 to 1.000, and indicates the extent to which the line fits the points. The higher the value of  $r^2$  the better is the relationship among them. In this hypothesis, the value of  $r^2$  is .166 which means that variation is good enough in the sample area.**

**In this case, the null hypothesis being tested is that the true slope beta 1 equals 0. Here, with an F statistic in excess of 198.289 and a significance level of 0, we would reject the null.**

**The next output is the table of coefficients. In a regression equation, the slope and the intercept are referred to as the**

coefficients in the model. We find both coefficients in the column labelled B; the intercept (beta) is the constant, and the slope (beta1) is the coefficient of the usage of the accounts. From the table, the estimated line can be written as:

$$\text{Access} = 0.755 + 0.075\text{usage}$$

The slope of the line (.075) means that if usage increases, access increases by .705 times.

#### **Chi-Square Test:**

The Pearson Chi-Square statistic is equal to .701 with significance equal to .402. Thus, the null hypothesis is rejected and concluded that the level of knowledge or education and access to bank account are not independent of each other. In other words, these two variables are significantly related.

#### **Non-Parametric tests:**

##### **Mann-Whitney U Test:**

The Mann-Whitney U test is the non parametric version of the independent sample t test. More specifically, this test is used when we have two independent samples and can assume they are drawn from populations with the same shape, although not necessarily normal. The Mann-Whitney test can be used with ordinal, interval or ratio data.

In the output attached in the annexure, the Mann-Whitney U statistic is equal to 3219.000 with a significance (P-value) equal to .994. Thus we conclude that there is a significant difference in the age and the awareness of financial knowledge by the households.

**Kruskal- Wallis H test:**

**This is the non parametric version of the one- factor independent measures ANOVA. This test is used if there are more than two independent samples and can be assumed that they are from populations with the same shape, although not necessarily normal. The Kruskal Wallis statistic (chi-square) is equal to .701 with significance equal to .403. Thus it can be concluded that that the education and access to bank have a significant effect on the usage of financial services by the households.**

**8.16 Hypothesis 2:**

**The second hypothesis states that there is no significant difference between financial exclusion and institutional negligence like banks and other financial institutions. The following statistical tools are used to test the hypothesis.**

**T- Test :**

**There is no significant difference between financial exclusion and institutional negligence like banks and other financial institutions. The hypothesis states that financial exclusion and institutional negligence like banks and other financial institutions do not have any relationship. The application of statistics makes us to believe that financial exclusion does not happen due to the institutional negligence.**

**In the case of one sample t test (Levene's Test for Equality of Variances), the t value is 30.810 and a P-value (significance) of .000 and the value of the test statistic t, is .016 standard errors.**

The sample mean is extremely far from the hypothesized value. Therefore null hypothesis needs to be accepted.

To the right of the Levene test results, there are two rows of output for the variable, corresponding to equal and unequal variance conditions. Since we assume equal variance for this test, only top line is considered. The test statistic  $t$  equals 30.810. The sign of the test statistic makes the null hypothesis true. Since the P-value here is approximately 0, the 1 tailed P-value is also about 0. Therefore, null hypothesis is accepted. This means that there is no significant difference between financial exclusion and institutional negligence.

The Kolmogorov- Smirnov test assesses whether there is a significant departure from normality in the population distribution for each of the groups. The null hypothesis states that the population distribution is normal. The test statistics range from 30.810 and the P values (significance) are all .000. Since these P-values are more than the statistics, the null hypothesis is accepted and concludes that these data do not violate the normality assumption.

#### **ANOVA:**

In the case of one way ANOVA, the test statistic (F) equals 84.934 with a corresponding P-value of .000. In this test, we would reject the null hypothesis and conclude that these data provide substantial evidence of a least one significant difference in mean bank openings among the three groups of households.

The Univariate ANOVA output consists of several parts (descriptive statistics, Levene's test of equality of variances, and the tests of between subjects effects).

Levene's test for homogeneity of variances assesses whether the population variances for the groups are significantly different from each other. The Levene statistic (F) has a value of 84.934 and a P-value of .000. Since F is greater than the P value, we reject the null hypothesis.

In the case of tests between subjects effects, the F value of occupation is .84.934 and the table value is .000. Since the F value is greater than the table value, the null hypothesis is rejected.

#### **Regression:**

The regression output consists of four parts: a table of variances in the regression equation, a model summary, an ANOVA table and a table of coefficients.

Regression equation is taken as a model that explains or predicts variation in a dependent variable. The table of variables Entered /Removed lists the independent variable in the model. It is possible to have several independent variables, and we may want to examine regression models that contain different combinations of those variables. Thus, SPSS refers to variables having been entered into or removed from a model, and anticipates the possibility that there are several models within a single analysis. In this case, there is just one variable: operation of bank account by the rural households.



The regression procedure via the least squares method of estimation, gives us the line that fits the points better than any other.

The second standard part of the regression output- the model summary reports a statistic that measures “goodness of fit”. The statistic is called the coefficient of determination, represented by the symbol  $r^2$ . It is the square of  $r$ , the coefficient of correlation which is also covered here.

$R^2$  can range from 0.000 to 1.000, and indicates the extent to which the line fits the points. The higher the value of  $r^2$  the better is the relationship among them. In this hypothesis, the value of  $r^2$  is .079 which means that variation is good enough in the sample area.

In this case, the null hypothesis being tested is that the true slope beta 1 equals 0. Here, with an F statistic in excess of 84.934 and a significance level of 0, we would reject the null.

The next output is the table of coefficients. In a regression equation, the slope and the intercept are referred to as the coefficients in the model. We find both coefficients in the column labelled B; the intercept (beta) is the constant, and the slope (beta1) is the coefficient of the usage of the accounts. From the output, it can be concluded that the null hypothesis is accepted.

**Chi-Square Test:**

The Pearson Chi- Square statistic is equal to 78.423 with significance equal to .000. Thus, the null hypothesis is rejected and concluded that the level of knowledge or education and

access to bank account are not independent of each other. In other words, these two variables are significantly related.

**Non –Parametric tests:**

**Mann- Whitney U Test:**

The Mann-Whitney U test is the non parametric version of the independent sample t test. More specifically, this test is used when we have two independent samples and can assume they are drawn from populations with the same shape, although not necessarily normal. The Mann-Whitney test can be used with ordinal, interval or ratio data.

In the output attached in the annexure, the Mann-Whitney U statistic is equal to 3219.000 with a significance (P-value) equal to .994. Thus we conclude that there is a significant difference in the age and the awareness of financial knowledge by the households.

**Kruskal- Wallis H test:**

This is the non parametric version of the one- factor independent measures ANOVA. This test is used if there are more than two independent samples and can be assumed that they are from populations with the same shape, although not necessarily normal. The Kruskal Wallis statistic (chi-square) is equal to 78.423 with significance equal to .000. Thus it can be concluded that that the institutional negligence and access to bank have a significant effect on the usage of financial services by the households.

### **8.17 Hypothesis 3:**

The third hypothesis states that there is no significant difference in household perceptions about the formal and informal forms of finance.

The following statistical tools are used to test the hypothesis.

**T- Test :**

The hypothesis states that household perceptions about the formal and informal forms of finance do not have any relationship. The application of statistics makes us to believe that perception of households about formal and informal forms are same.

In the case of one sample t test (Levene's Test for Equality of Variances), the t value is 14.001 and a P-value (significance) of .000 and the value of the test statistic t, is .012 standard errors. The sample mean is extremely far from the hypothesized value. Therefore null hypothesis needs to be accepted.

To the right of the Levene test results, there are two rows of output for the variable, corresponding to equal and unequal variance conditions. Since we assume equal variance for this test, only top line is considered. The test statistic t equals 14.001. The sign of the test statistic makes the null hypothesis true. Since the P-value here is approximately 0, the 1 tailed P-value is also about 0. Therefore, null hypothesis is accepted. This means that there is no significant difference between perceptions towards formal and informal sources of finance.

The Kolmogorov- Smirnov test assesses whether there is a significant departure from normality in the population distribution

for each of the groups. The null hypothesis states that the population distribution is normal. The test statistics range from 14.001 and the P values (significance) are all .000. Since these P-values are more than the statistics, the null hypothesis is accepted and concludes that these data do not violate the normality assumption.

#### **ANOVA:**

In the case of one way ANOVA, the test statistic (F) equals 31.431 with a corresponding P-value of .000. In this test, we would reject the null hypothesis and conclude that these data provide substantial evidence of a least one significant difference in mean bank openings among the three groups of households.

The Univariate ANOVA output consists of several parts (descriptive statistics, Levene's test of equality of variances, and the tests of between subjects effects).

Levene's test for homogeneity of variances assesses whether the population variances for the groups are significantly different from each other. The Levene statistic (F) has a value of 31.431 and a P-value of .000. Since F is greater than the P value, we reject the null hypothesis.

In the case of tests between subjects effects, the F value of occupation is .31.431 and the table value is .000. Since the F value is greater than the table value, the null hypothesis is rejected.

#### **Regression:**

The regression output consists of four parts: a table of variances in the regression equation, a model summary, an ANOVA table and a table of coefficients.

Regression equation is taken as a model that explains or predicts variation in a dependent variable. The table of variables Entered /Removed lists the independent variable in the model. It is possible to have several independent variables, and we may want to examine regression models that contain different combinations of those variables. Thus, SPSS refers to variables having been entered into or removed from a model, and anticipates the possibility that there are several models within a single analysis. In this case, there is just one variable: operation of bank account by the rural households.

The regression procedure via the least squares method of estimation, gives us the line that fits the points better than any other.

The second standard part of the regression output- the model summary reports a statistic that measures “goodness of fit”. The statistic is called the coefficient of determination, represented by the symbol  $r^2$ . It is the square of  $r$ , the coefficient of correlation which is also covered here.

$R^2$  can range from 0.000 to 1.000, and indicates the extent to which the line fits the points. The higher the value of  $r^2$  the better is the relationship among them. In this hypothesis, the value of  $r^2$  is .050 which means that variation is good enough in the sample area.

In this case, the null hypothesis being tested is that the true slope beta 1 equals 0. Here, with an F statistic in excess of 52.808 and a significance level of 0, we would reject the null.

The next output is the table of coefficients. In a regression equation, the slope and the intercept are referred to as the coefficients in the model. We find both coefficients in the column labelled B; the intercept (beta) is the constant, and the slope (beta1) is the coefficient of the usage of the accounts. From the output, it can be concluded that the null hypothesis is accepted.

#### **Chi-Square Test:**

The Pearson Chi- Square statistic is equal to .123 with significance equal to .726. Thus, the null hypothesis is accepted and concluded that the level of knowledge or education and access to bank account are not independent of each other. In other words, these two variables are significantly related.

#### **Non –Parametric tests:**

##### **Mann- Whitney U Test:**

The Mann-Whitney U test is the non parametric version of the independent sample t test. More specifically, this test is used when we have two independent samples and can assume they are drawn from populations with the same shape, although not necessarily normal. The Mann-Whitney test can be used with ordinal, interval or ratio data.

In the output attached in the annexure, the Mann-Whitney U statistic is equal to 82875.00 with a significance (P-value) equal to

**.000. Thus we conclude that there is a significant difference in the perceptions of individuals about formal and informal sources of finance.**

**Kruskal- Wallis H test:**

**This is the non parametric version of the one- factor independent measures ANOVA. This test is used if there are more than two independent samples and can be assumed that they are from populations with the same shape, although not necessarily normal. The Kruskal Wallis statistic (chi-square) is equal to 78.423 with significance equal to .000. Thus it can be concluded that that the perceptions of individuals about formal and informal sources do not differ from each other.**

#### **8.18 Hypothesis 4:**

**The third hypothesis states that there is no significant difference in access to a savings account to that of usage of that account.**

**The following statistical tools are used to test the hypothesis.**

**T- Test :**

**The hypothesis states that household perceptions about the formal and informal forms of finance do not have any relationship.**

**The application of statistics makes us to believe that perception of households about formal and informal forms are same.**

**In the case of one sample t test (Levene's Test for Equality of Variances), the t value is 30.503 and a P-value (significance) of .000 and the value of the test statistic t, is .016 standard errors.**

The sample mean is extremely far from the hypothesized value. Therefore null hypothesis needs to be rejected.

To the right of the Levene test results, there are two rows of output for the variable, corresponding to equal and unequal variance conditions. Since we assume equal variance for this test, only top line is considered. The test statistic  $t$  equals 30.503. The sign of the test statistic makes the null hypothesis false. Since the P-value here is approximately 0, the 1 tailed P-value is also about 0. Therefore, null hypothesis is rejected. This means that there is no significant difference between access to bank account and usage of that account.

The Kolmogorov- Smirnov test assesses whether there is a significant departure from normality in the population distribution for each of the groups. The null hypothesis states that the population distribution is normal. The test statistics range from 30.503 and the P values (significance) are all .000. Since these P-values are less than the statistics, the null hypothesis is rejected and concludes that these data do not violate the normality assumption.

#### **ANOVA:**

In the case of one way ANOVA, the test statistic (F) equals 82.696 with a corresponding P-value of .000. In this test, we would reject the null hypothesis and conclude that these data provide substantial evidence of a least one significant difference in mean bank openings among the three groups of households.



The Univariate ANOVA output consists of several parts (descriptive statistics, Levene's test of equality of variances, and the tests of between subjects effects).

Levene's test for homogeneity of variances assesses whether the population variances for the groups are significantly different from each other. The Levene statistic (F) has a value of 82.696 and a P-value of .000. Since F is greater than the P value, we reject the null hypothesis.

In the case of tests between subjects effects, the F value of occupation is 82.696 and the table value is .000. Since the F value is greater than the table value, the null hypothesis is rejected.

#### **Regression:**

The regression output consists of four parts: a table of variances in the regression equation, a model summary, an ANOVA table and a table of coefficients.

Regression equation is taken as a model that explains or predicts variation in a dependent variable. The table of variables Entered /Removed lists the independent variable in the model. It is possible to have several independent variables, and we may want to examine regression models that contain different combinations of those variables. Thus, SPSS refers to variables having been entered into or removed from a model, and anticipates the possibility that there are several models within a single analysis. In this case, there is just one variable: operation of bank account by the rural households.

The regression procedure via the least squares method of estimation, gives us the line that fits the points better than any other.

The second standard part of the regression output- the model summary reports a statistic that measures “goodness of fit”. The statistic is called the coefficient of determination, represented by the symbol  $r^2$ . It is the square of  $r$ , the coefficient of correlation which is also covered here.

$R^2$  can range from 0.000 to 1.000, and indicates the extent to which the line fits the points. The higher the value of  $r^2$  the better is the relationship among them. In this hypothesis, the value of  $r^2$  is .094 which means that variation is good enough in the sample area.

In this case, the null hypothesis being tested is that the true slope beta 1 equals 0. Here, with an F statistic in excess of 100.508 and a significance level of 0, we would reject the null.

The next output is the table of coefficients. In a regression equation, the slope and the intercept are referred to as the coefficients in the model. We find both coefficients in the column labelled B; the intercept (beta) is the constant, and the slope (beta1) is the coefficient of the usage of the accounts. From the output, it can be concluded that the null hypothesis is accepted.

**Chi-Square Test:**

The Pearson Chi- Square statistic is equal to.000 with significance equal to 1.000. Thus, the null hypothesis is rejected and concluded that the usage and access to bank account are not

independent of each other. In other words, these two variables are significantly unrelated.

**Non –Parametric tests:**

**Mann- Whitney U Test:**

The Mann-Whitney U test is the non parametric version of the independent sample t test. More specifically, this test is used when we have two independent samples and can assume they are drawn from populations with the same shape, although not necessarily normal. The Mann-Whitney test can be used with ordinal, interval or ratio data.

In the output attached in the annexure, the Mann-Whitney U statistic is equal to 52385.00 with significance (P-value) equal to .724. Thus we conclude that there is a significant difference in usage and access of bank accounts.

**Kruskal- Wallis H test:**

This is the non parametric version of the one- factor independent measures ANOVA. This test is used if there are more than two independent samples and can be assumed that they are from populations with the same shape, although not necessarily normal. The Kruskal Wallis statistic (chi-square) is equal to .000 with significance equal to 1.000. Thus it can be concluded that access to savings account and usage differ from each other.

#### **8.19 Hypothesis 5:**

The next hypothesis states that there is no significant difference in Self Help Groups and Chit Fund savings by individual households.

The following statistical tools are used to test the hypothesis.

**T- Test :**

The hypothesis states that household perceptions about the SHGs and chit funds are one and the same. The application of statistics makes us to believe that perception of households about SHGs and Chit funds and informal forms are not same.

In the case of one sample t test (Levene's Test for Equality of Variances), the t value is 30.503 and a P-value (significance) of .000 and the value of the test statistic t, is .016 standard errors.

The sample mean is extremely far from the hypothesized value. Therefore null hypothesis needs to be rejected.

To the right of the Levene test results, there are two rows of output for the variable, corresponding to equal and unequal variance conditions. Since we assume equal variance for this test, only top line is considered. The test statistic t equals 30.503. The sign of the test statistic makes the null hypothesis true. Since the P-value here is approximately 0, the 1 tailed P-value is also about 0. Therefore, null hypothesis is rejected. This means that there is a significant difference between perceptions towards formal and informal sources of finance.

The Kolmogorov- Smirnov test assesses whether there is a significant departure from normality in the population distribution

for each of the groups. The null hypothesis states that the population distribution is normal. The test statistics range from 30.503 and the P values (significance) are all .000. Since these P-values are more than the statistics, the null hypothesis is rejected and concludes that these data do not violate the normality assumption.

#### **ANOVA:**

In the case of one way ANOVA, the test statistic (F) equals 82.696 with a corresponding P-value of .000. In this test, we would reject the null hypothesis and conclude that these data provide substantial evidence of a least one significant difference in mean bank openings among the three groups of households.

The Univariate ANOVA output consists of several parts (descriptive statistics, Levene's test of equality of variances, and the tests of between subjects effects).

Levene's test for homogeneity of variances assesses whether the population variances for the groups are significantly different from each other. The Levene statistic (F) has a value of 82.696 and a P-value of .000. Since F is greater than the P value, we reject the null hypothesis.

In the case of tests between subjects effects, the F value of occupation is 82.696 and the table value is .000. Since the F value is greater than the table value, the null hypothesis is rejected.

#### **Regression:**

The regression output consists of four parts: a table of variances in the regression equation, a model summary, an ANOVA table and a table of coefficients.

Regression equation is taken as a model that explains or predicts variation in a dependent variable. The table of variables Entered /Removed lists the independent variable in the model. It is possible to have several independent variables, and we may want to examine regression models that contain different combinations of those variables. Thus, SPSS refers to variables having been entered into or removed from a model, and anticipates the possibility that there are several models within a single analysis. In this case, there is just one variable: operation of bank account by the rural households.

The regression procedure via the least squares method of estimation, gives us the line that fits the points better than any other.

The second standard part of the regression output- the model summary reports a statistic that measures “goodness of fit”. The statistic is called the coefficient of determination, represented by the symbol  $r^2$ . It is the square of  $r$ , the coefficient of correlation which is also covered here.

$R^2$  can range from 0.000 to 1.000, and indicates the extent to which the line fits the points. The higher the value of  $r^2$  the better is the relationship among them. In this hypothesis, the value of  $r^2$  is .094 which means that variation is good enough in the sample area.

In this case, the null hypothesis being tested is that the true slope  $\beta_1$  equals 0. Here, with an F statistic in excess of 100.508 and a significance level of 0, we would reject the null.

The next output is the table of coefficients. In a regression equation, the slope and the intercept are referred to as the coefficients in the model. We find both coefficients in the column labelled B; the intercept ( $\beta_0$ ) is the constant, and the slope ( $\beta_1$ ) is the coefficient of the usage of the accounts. From the output, it can be concluded that the null hypothesis is accepted.

#### **Chi-Square Test:**

The Pearson Chi-Square statistic is equal to 0.000 with significance equal to 1.000. Thus, the null hypothesis is rejected and concluded that the usage and access to bank account are not independent of each other. In other words, these two variables are significantly unrelated.

#### **Non-Parametric tests:**

##### **Mann-Whitney U Test:**

The Mann-Whitney U test is the non parametric version of the independent sample t test. More specifically, this test is used when we have two independent samples and can assume they are drawn from populations with the same shape, although not necessarily normal. The Mann-Whitney test can be used with ordinal, interval or ratio data.

In the output attached in the annexure, the Mann-Whitney U statistic is equal to 52385.00 with significance (P-value) equal to

.724. Thus we conclude that there is a significant difference in usage and access of bank accounts.

**Kruskal- Wallis H test:**

This is the non parametric version of the one- factor independent measures ANOVA. This test is used if there are more than two independent samples and can be assumed that they are from populations with the same shape, although not necessarily normal. The Kruskal Wallis statistic (chi-square) is equal to .000 with significance equal to 1.000. Thus it can be concluded that access to savings account and usage differ from each other.

#### **8.20 Hypothesis 6:**

The next hypothesis states that there is no significant difference in timing of access and usage of bank account.

The following statistical tools are used to test the hypothesis.

**T- Test :**

In the case of one sample t test (Levene's Test for Equality of Variances), the t value is 66.038 and a P-value (significance) of .000 and the value of the test statistic t, is .041 standard errors.

The sample mean is extremely far from the hypothesized value. Therefore null hypothesis needs to be rejected.

To the right of the Levene test results, there are two rows of output for the variable, corresponding to equal and unequal variance conditions. Since we assume equal variance for this test, only top line is considered. The test statistic t equals 66.038. The sign of the test statistic makes the null hypothesis false. Since the



P-value here is approximately 0, the 1 tailed P-value is also about 0. Therefore, null hypothesis is rejected. This means that there is a significant difference between timing of access and usage of bank account.

The Kolmogorov- Smirnov test assesses whether there is a significant departure from normality in the population distribution for each of the groups. The null hypothesis states that the population distribution is normal. The test statistics range from 106.122 and the P values (significance) are all .000. Since these P-values are more than the statistics, the null hypothesis is rejected and concludes that these data violates the normality assumption.

#### **ANOVA:**

In the case of one way ANOVA, the test statistic (F) equals 43.380 with a corresponding P-value of .000. In this test, we would reject the null hypothesis and conclude that these data provide substantial evidence of a least one significant difference in mean bank openings among the three groups of households.

The Univariate ANOVA output consists of several parts (descriptive statistics, Levene's test of equality of variances, and the tests of between subjects effects).

Levene's test for homogeneity of variances assesses whether the population variances for the groups are significantly different from each other. The Levene statistic (F) has a value of 43.380 and a P-value of .000. Since F is greater than the P value, we reject the null hypothesis.

In the case of tests between subjects effects, the F value of occupation is 43.380 and the table value is .000. Since the F value is greater than the table value, the null hypothesis is rejected.

#### **Regression:**

The regression output consists of four parts: a table of variances in the regression equation, a model summary, an ANOVA table and a table of coefficients.

Regression equation is taken as a model that explains or predicts variation in a dependent variable. The table of variables Entered /Removed lists the independent variable in the model. It is possible to have several independent variables, and we may want to examine regression models that contain different combinations of those variables. Thus, SPSS refers to variables having been entered into or removed from a model, and anticipates the possibility that there are several models within a single analysis. In this case, there is just one variable: operation of bank account by the rural households.

The regression procedure via the least squares method of estimation, gives us the line that fits the points better than any other.

The second standard part of the regression output- the model summary reports a statistic that measures “goodness of fit”. The statistic is called the coefficient of determination, represented by the symbol  $r^2$ . It is the square of  $r$ , the coefficient of correlation which is also covered here.

$R^2$  can range from 0.000 to 1.000, and indicates the extent to which the line fits the points. The higher the value of  $r^2$  the better is the relationship among them. In this hypothesis, the value of  $r^2$  is .094 which means that variation is good enough in the sample area.

In this case, the null hypothesis being tested is that the true slope beta 1 equals 0. Here, with an F statistic in excess of 99.793 and a significance level of 0, we would reject the null.

The next output is the table of coefficients. In a regression equation, the slope and the intercept are referred to as the coefficients in the model. We find both coefficients in the column labelled B; the intercept (beta) is the constant, and the slope (beta1) is the coefficient of the usage of the accounts. From the output, it can be concluded that the null hypothesis is accepted.

#### **Chi-Square Test:**

The Pearson Chi- Square statistic is equal to 969.479 with significance equal to 0.000. Thus, the null hypothesis is rejected and concluded that there is a significant difference in timing of access and usage of bank account.

In other words, these two variables are significantly unrelated.

#### **Non –Parametric tests:**

##### **Mann- Whitney U Test:**

The Mann-Whitney U test is the non parametric version of the independent sample t test. More specifically, this test is used when we have two independent samples and can assume they are drawn from populations with the same shape, although not

necessarily normal. The Mann-Whitney test can be used with ordinal, interval or ratio data.

In the output attached in the annexure, the Mann-Whitney U statistic is equal to .385 with significance (P-value) equal to 1.000. Thus we conclude that there is a no significant difference in timing of access and usage of bank account.

**Kruskal- Wallis H test:**

This is the non parametric version of the one- factor independent measures ANOVA. This test is used if there are more than two independent samples and can be assumed that they are from populations with the same shape, although not necessarily normal. The Kruskal Wallis statistic (chi-square) is equal to .000 with significance equal to 1.000. Thus it can be concluded that access to savings account and usage differ from each other.

#### **8.21 Hypothesis 7:**

**T- Test :**

There is no significant difference between usage of bank account and occupation by rural households. The hypothesis states that financial inclusion and the occupation are one and the same. But the application of statistics makes us to believe that financial exclusion and usage does not depend on occupation.

In the case of independent sample t test (Levene's Test for Equality of Variances), the F value is 106.122 and a P-value (significance) of .000 and the value of the test statistic t, is .037

standard errors. The sample mean is extremely far from the hypothesized value. Therefore null hypothesis needs to be rejected.

To the right of the Levene test results, there are two rows of output for the variable, corresponding to equal and unequal variance conditions. Since we assume equal variance for this test, only top line is considered. The test statistic  $t$  equals .037. The sign of the test statistic makes the alternate hypothesis false. Since the P-value here is approximately 0, the 1 tailed P-value is also about 0. Therefore, null hypothesis is accepted in favour of alternate hypothesis. This means that there is a significant difference usage of account and occupation.

The Kolmogorov- Smirnov test assesses whether there is a significant departure from normality in the population distribution for each of the groups. The null hypothesis states that the population distribution is normal. The test statistics range from 63.607 and the P values (significance) are all .000. Since these P-values are less than the statistics, the null hypothesis is rejected and concludes that these data do not violate the normality assumption.

#### **ANOVA:**

In the case of one way ANOVA, the test statistic ( $F$ ) equals .157 with a corresponding P-value of .855. In this test, we would accept the null hypothesis and conclude that these data provide

substantial evidence of a least one significant difference in usage of accounts and occupation.

The Univariate ANOVA output consists of several parts (descriptive statistics, Levene's test of equality of variances, and the tests of between subjects effects).

Levene's test for homogeneity of variances assesses whether the population variances for the groups are significantly different from each other. The Levene statistic (F) has a value of .157 and a P-value of .855. Since F is lesser than the P value, we accept the null hypothesis.

In the case of tests between subjects effects, the F value of occupation is .157 and the table value is .855. Since the F value is lesser than the table value, the null hypothesis is accepted.

**Regression:**

The regression output consists of four parts: a table of variances in the regression equation, a model summary, an ANOVA table and a table of coefficients.

Regression equation is taken as a model that explains or predicts variation in a dependent variable. The table of variables Entered /Removed lists the independent variable in the model. It is possible to have several independent variables, and we may want to examine regression models that contain different combinations of those variables. Thus, SPSS refers to variables having been entered into or removed from a model, and anticipates the possibility that there are several models within a single analysis.

In this case, there is just one variable: operation of bank account by the rural households.

The regression procedure via the least squares method of estimation, gives us the line that fits the points better than any other.

The second standard part of the regression output- the model summary reports a statistic that measures “goodness of fit”. The statistic is called the coefficient of determination, represented by the symbol  $r^2$ . It is the square of  $r$ , the coefficient of correlation which is also covered here.

$R^2$  can range from 0.000 to 1.000, and indicates the extent to which the line fits the points. The higher the value of  $r^2$  the better is the relationship among them. In this hypothesis, the value of  $r^2$  is .000 which means that variation is good enough in the sample area.

In this case, the null hypothesis being tested is that the true slope beta 1 equals 0. Here, with an F statistic in excess of .311 and a significance level of .577, we would accept the null.

The next output is the table of coefficients. In a regression equation, the slope and the intercept are referred to as the coefficients in the model. We find both coefficients in the column labelled B; the intercept (beta) is the constant, and the slope (beta1) is the coefficient of the usage of the accounts.

**Chi-Square Test:**

The Pearson Chi- Square statistic is equal to 10.548 with significance equal to .394. Thus, the null hypothesis is rejected

and concluded that the occupation and access and usage to bank account are not independent of each other. In other words, these two variables are significantly related.

**Non –Parametric tests:**

**Mann- Whitney U Test:**

The Mann-Whitney U test is the non parametric version of the independent sample t test. More specifically, this test is used when we have two independent samples and can assume they are drawn from populations with the same shape, although not necessarily normal. The Mann-Whitney test can be used with ordinal, interval or ratio data.

In the output attached in the annexure, the Mann-Whitney U statistic is equal to 3219.000 with a significance (P-value) equal to .994. Thus we conclude that there is a significant difference in the occupation and the awareness of financial knowledge by the households.

**Kruskal- Wallis H test:**

This is the non parametric version of the one- factor independent measures ANOVA. This test is used if there are more than two independent samples and can be assumed that they are from populations with the same shape, although not necessarily normal. The Kruskal Wallis statistic (chi-square) is equal to .701 with significance equal to .403. Thus it can be concluded that that the occupation and access to bank have a significant effect on the usage of financial services by the households.



## 8.22 Hypothesis 8:

### T- Test :

There is no significant difference between type of bank account and occupation by rural households. The hypothesis states that those who have opened the savings account with the bank, have done so keeping in view of their occupation. But the application of statistics makes us to believe that type of account and occupation is not related.

In the case of independent sample t test (Levene's Test for Equality of Variances), the F value is 94.686 and a P-value (significance) of .000 and the value of the test statistic t, is .027 standard errors. The sample mean is extremely far from the hypothesized value. Therefore null hypothesis needs to be rejected.

To the right of the Levene test results, there are two rows of output for the variable, corresponding to equal and unequal variance conditions. Since we assume equal variance for this test, only top line is considered. The test statistic t equals 94.686. The sign of the test statistic makes the alternate hypothesis true. Since the P-value here is approximately 0, the 1 tailed P-value is also about 0. Therefore, null hypothesis is rejected. This means that there is a significant difference Type of account and occupation.

The Kolmogorov- Smirnov test assesses whether there is a significant departure from normality in the population distribution

for each of the groups. The null hypothesis states that the population distribution is normal. The test statistics range from 98.686 and the P values (significance) are all .000. Since these P-values are less than the statistics, the null hypothesis is rejected and concludes that these data do not violate the normality assumption.

#### **ANOVA:**

In the case of one way ANOVA, the test statistic (F) equals .137 with a corresponding P-value of .872. In this test, we would accept the null hypothesis and conclude that these data provide substantial evidence of a least one significant difference in type of accounts and occupation.

The Univariate ANOVA output consists of several parts (descriptive statistics, Levene's test of equality of variances, and the tests of between subjects effects).

Levene's test for homogeneity of variances assesses whether the population variances for the groups are significantly different from each other. The Levene statistic (F) has a value of .137 and a P-value of .872. Since F is lesser than the P value, we accept the null hypothesis.

In the case of tests between subjects effects, the F value of occupation is .137 and the table value is .872. Since the F value is lesser than the table value, the null hypothesis is accepted.

#### **Regression:**

The regression output consists of four parts: a table of variances in the regression equation, a model summary, an ANOVA table and a table of coefficients.

Regression equation is taken as a model that explains or predicts variation in a dependent variable. The table of variables Entered /Removed lists the independent variable in the model. It is possible to have several independent variables, and we may want to examine regression models that contain different combinations of those variables. Thus, SPSS refers to variables having been entered into or removed from a model, and anticipates the possibility that there are several models within a single analysis. In this case, there is just one variable: operation of bank account by the rural households.

The regression procedure via the least squares method of estimation, gives us the line that fits the points better than any other.

The second standard part of the regression output- the model summary reports a statistic that measures “goodness of fit”. The statistic is called the coefficient of determination, represented by the symbol  $r^2$ . It is the square of  $r$ , the coefficient of correlation which is also covered here.

$R^2$  can range from 0.000 to 1.000, and indicates the extent to which the line fits the points. The higher the value of  $r^2$  the better is the relationship among them. In this hypothesis, the value of  $r^2$  is .000 which means that variation is good enough in the sample area.

In this case, the null hypothesis being tested is that the true slope beta 1 equals 0. Here, with an F statistic in excess of .311 and a significance level of .577, we would accept the null.

The next output is the table of coefficients. In a regression equation, the slope and the intercept are referred to as the coefficients in the model. We find both coefficients in the column labelled B; the intercept (beta) is the constant, and the slope (beta1) is the coefficient of the usage of the accounts.

**Chi-Square Test:**

The Pearson Chi- Square statistic is equal to 3.288 with significance equal to .772. Thus, the null hypothesis is rejected and concluded that the occupation and access and usage and type of bank account are not independent of each other. In other words, these two variables are significantly related.

**Non –Parametric tests:**

**Mann- Whitney U Test:**

The Mann-Whitney U test is the non parametric version of the independent sample t test. More specifically, this test is used when we have two independent samples and can assume they are drawn from populations with the same shape, although not necessarily normal. The Mann-Whitney test can be used with ordinal, interval or ratio data.

Thus we conclude that there is a significant difference in the occupation and the awareness of financial knowledge by the households.

**Kruskal- Wallis H test:**

This is the non parametric version of the one- factor independent measures ANOVA. This test is used if there are more than two independent samples and can be assumed that they are from populations with the same shape, although not necessarily normal. The Kruskal Wallis statistic (chi-square) is equal to .701 with significance equal to .403. Thus it can be concluded that that the occupation and access to bank have a significant effect on the usage of financial services by the households.

**8.23** The results of hypothesis testing have been summarised in the table 8.23.1.

<b>Sr.No.</b>	<b>Null Hypotheses</b>	<b>Alternative Hypotheses</b>
<b>H1</b>	<b>There is no significant difference between Financial inclusion and lack of awareness by rural households. - REJECTED</b>	<b>There is a significant difference between Financial inclusion and lack of awareness by rural households. - ACCEPTED</b>
<b>H2</b>	<b>There is no significant difference between the financial inclusion and institutional negligence by banks.</b>	<b>There is a significant difference between the financial inclusion and institutional negligence by banks.</b>

	<b>- REJECTED</b>	<b>- ACCEPTED</b>
<b>H3</b>	There is no significant difference between household perceptions about the formal and informal sources of finance. <b>- ACCEPTED</b>	There is a significant difference between household perceptions about the formal and informal sources of finance. <b>- REJECTED</b>
<b>H4</b>	There is no significant difference between access to a savings account and usage of that account. <b>- REJECTED</b>	There is a significant difference between access to a savings account and usage of that account. <b>- ACCEPTED</b>
<b>H5</b>	There is no significant difference in the perceptions of households between Self Help Group Savings and chit funds. <b>-REJECTED</b>	There is no significant difference in the perceptions of households between Self Help Group Savings and chit funds. <b>- ACCEPTED</b>
<b>H6</b>	There is no difference between timing of access and usage of bank account. <b>- REJECTED</b>	There is a difference between timing of access and usage of bank account. <b>- ACCEPTED</b>
<b>H7</b>	There is no difference	There is a difference

	<p>between occupation and usage of bank account by rural households.</p> <p><b>- REJECTED</b></p>	<p>between occupation and usage of bank account by rural households.</p> <p><b>- ACCEPTED</b></p>
H8	<p>There is no significant difference between occupation and the type of savings account held by the rural households.</p> <p><b>-REJECTED</b></p>	<p>There is a significant difference between occupation and the type of savings account held by the rural households.</p> <p><b>- ACCEPTED</b></p>

## **CHAPTER-8**

### **Conclusions and Recommendations**



## **CHAPTER-8**

### **Conclusions and Recommendations**

- 9.1 This study is an attempt to understand the process behind the recent financial inclusion drive in India in the specific context of Gulbarga district in Karnataka. An attempt has been made to document the manner by which households become financially included and how this changes their financial behaviour.
- 9.2 This study finds that the financial inclusion drive, while implemented with a great deal of enthusiasm by banks and bank officials, does not resonate with low-income households. While the actual drive itself suffers from several inconsistencies, the usage of accounts opened is abysmally low. One issue with the drive include the changing nature of what financial inclusion meant. For instance, at the beginning of the drive, holders of post office accounts came under the ambit of the included. But by the end of the drive, they were pushed under the excluded category. Similarly, while accounts were ostensibly zero minimum balance, account holders were asked to deposit some token sum of money in their bank account. Coupled with the fact that bank officials do not see this as a commercial opportunity, the financial inclusion drive is unlikely to yield positive returns without the addition of other components to this programme like financial training etc.
- 9.3 In this context, it is important to mention several other ways that inclusion can be broached. The Business Correspondent model which has not been explored in great detail on the ground is one

way to extend banking services to the unbanked so that banking arrives at their doorstep in a more usable form. Given the significance of NREGP payments in this study, it is worthwhile to mention an effort in the neighbouring state of Andhra Pradesh which uses FINO smart cards to deliver government assistance to the beneficiaries. There are no bank accounts involved here.

9.4 While this is slightly tangential to what is under discussion, the FINO smart card provides an important way to overcome infrastructure problems that small bank branches in rural areas may face in having to cater to the demand for bank accounts that the NREGP has created.

9.5 Finally, this study mentions that access to finance is seen as so intrinsic to economic development that in developing countries, the tendency has been to think of a bank account as a basic right, comparable to drinking water, health etc. The evidence just shared clearly exposes the fallacy of this idea. While access to finance may be a critical factor for many households to hoist themselves out of poverty, it is not necessary that access must come from a relationship with a bank. This study shows that there is unmet demand for a micro-savings product. However, it would be inappropriate to interpret that bank accounts are the optimal way to provide this facility to low income households.

9.6 While financial inclusion is no doubt a laudable goal, the results from this study demonstrate the expense and the enormous logistical difficulties of managing an inclusion drive in a district

as vast as Gulbarga. While conversations with bank officials show their commitment to following RBI guidelines, they also reveal widespread scepticism regarding the efficacy of these guidelines.

9.7 Thus, the drive has not wholly adhered to the spirit behind offering un banked households bank accounts. There is a need to do a cost benefit analysis of these accounts. Is it really a commercial opportunity for banks? Given the low usage of these No Frills Accounts, one would intuit that this is not the case. If the benefits to households from owning a bank account are greater than the costs, there is certainly a case to be made for them, even if it is not economically viable for banks. However, our data reveals that the relevance of these accounts in the financial lives of households is extremely minimal.

9.8 The data presented above reveals that only those who received assistance under NREGP knew about the accounts and had in fact opened any No Frills Accounts. Does this mean that no other No Frills Accounts were opened? It is possible that other accounts were opened. But as we see from our study, while households understand the significance of saving to face future economic shocks and indeed, do save for such unforeseen events, households do not save in their bank accounts. Given the lack of usage and understanding of a bank account, it is possible that households that previously opened accounts under the drive, do not remember doing so at the present time. Gulbarga suffers from low levels of education and economic development. Given these

circumstances, financial literacy training is a must to go along with the provision of a bank account. Regarding the implementation of the drive, there are several inconsistencies that emerge. For instance, newspaper advertisements in a largely illiterate district may not be the best way to disseminate information regarding the financial inclusion drive. Our study shows that several families were able to open more than one No Frills Account. While this number was not significant, it is still worth mentioning. Information regarding the drive has not seemed to have filtered down to the target population. As in the last paragraph, this may not be because banks didn't try; it may simply be that bank accounts are not relevant to the lives of unbanked households and thus, they did not pay attention.

9.9 Furthermore, the data demonstrates that all the accounts opened were opened in order to receive assistance under NREGP, rather than under the financial inclusion drive. While NREGP accounts are also No Frills Accounts with zero minimum balance in principle and banks incorporate it within the aegis of the financial inclusion drive, these accounts are clearly earmarked for receiving government assistance, rather than aiding non-bank clients to develop banking habits.

9.10 It comes as not surprise that the drive has not inculcated any significant relationships between banks and their new clients. Banks have been asked to open bank accounts for households

who are excluded from all possible avenues of bank linkage including SHG bank linkage. It is important to consider why these households are not part of SHGs and what this implies about their risk profile. Conversations with households that do not have SHG members reveal that the primary reason for not joining is the inability to save the requisite Rs. 10 on a weekly basis. In other words, bank accounts are being extended to families that do have savings habit. While these families need a safe place to save as well, a bank account, given its cost to the bank and low returns from zero minimum balance account, may not appropriate for them.

9.11 This data also reveals a few inconsistencies that are unexpected at first glance. Many households indicate that one of the reasons they have no bank accounts is because they do not make enough money to save. In spite of this, when asked if they want a bank account, a significant number indicate that one of the reasons to own a bank account is to be able to save money.

9.12 Similarly, an overwhelmingly majority of households indicate that they save on a weekly basis. Informal conversations with respondents reveal that these households think of bank accounts as places to save larger amounts of money, while they tend to save smaller amounts to the tune of Rs. 10-20 per week.

9.13 What this study shows is that low income households can and do save small amounts either in their house or in Self Help Groups. Households that were most successful in saving were families

that were part of SHGs. The average cost of travelling to a bank in Gulbarga block was about Rs. 22. Most families belonging to SHGs save approximately Rs. 10-15 every week.

- 9.14 Thus, using this as a proxy for all families, even if households do save in banks, we find that for households which require a micro-savings product, a bank account may not always be the most cost effective solution.

# **Appendix -1**

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## **Appendix- 2**

### **Research Questionnaire**

**From,**

**Vani Kamath  
Research Scholar**

**Padmashree Dr.D.Y.Patil University's  
Department of Business Management  
Sector-4, CBD Belapur, Navi Mumbai.**

**Dear Friends,**

**I am pursuing a Ph.D degree from Dr.D.Y.Patil University's Department of Business Management, Navi Mumbai. I am undertaking a project on 'Financial Inclusion in Gulbarga'. I am interested to know if there is any relationship between the access to bank account and usage of that account by the rural BPL households in your area.**

**The project requires you to fill in the enclosed survey questionnaire. This information remains strictly confidential at all times and no names are referred to in this questionnaire. Please note that your participation in this survey is purely voluntary.**

**There are 29 questions in the questionnaire. It is important to give honest answers to each of the questions asked. There are no right or wrong answers. I am only interested to know what you really think and feel about the questions asked and how do you perceive about the financial inclusion drive and savings behaviour.**

**The questionnaire would take just 15 minutes of your valuable time to complete. Your time and effort in completing this survey questionnaire will be greatly appreciated.**

**For any query or clarifications, you may contact me at the above address.**

**Thank you very much for your participation.**

**Encl: Survey Questionnaire**

**Yours truly,**

**Vani Kamath.**

## **Questionnaire:**

1. Name:
2. Occupation: 1.Agricultural labour 2. Self employed 3. others
3. Age: 1. Below 30 2. 31-40 3. 41-50 4. 51 and above.
4. Sex: 1. Male 2. Female
5. Place:
6. No. of family members: 1. Less than 3 2. 3-6 3. 7 and more
7. Income p.a: 1. Less than 3600 2. 3600- 5000 3. more than 5000
8. Educational Qualification: 1. Literate 2. Illiterate
9. Marital Status: 1. Married 2. Unmarried 3. widow
  
10. Are you aware that banks are opening zero minimum balance accounts for everyone?
  - a. YES
  - b. NO
  
11. How did you find out that banks were opening zero minimum balance savings accounts?
  1. Bank Officials
  2. SHG Members
  3. NGOs
  4. Neighbours
  5. Village Panchayat Members
  6. Farmer Clubs
  7. Posters
  8. Newspaper Advertisements
  9. Village Meetings
  10. Other
  11. Don't know
  
12. Why you did not open any account in the previous years?
  1. We had the account previously
  2. There was no need for it
  3. We did not have documents

4. We had no idea about this scheme
5. No one met us with this information.
6. We did not have any idea about the introducer to the bank
7. Did not have enough income for savings
8. Don't know
9. Blank

13. What were the reasons for opening the bank Account?

1. Savings
2. Security
3. To receive the money from others.
4. To get the loans
5. To receive the money from the Govt.
6. To receive the money from the Govt not from NREGP
7. To get the prestigious position in the society.
8. To get the overdraft facility
9. We don't use the account
10. Other reason

14. Did someone help you open the account?

1. YES
2. NO

15. Who helped you open the account?

1. Bank officials
2. Village Panchayat Officials
3. NGOs
4. Family members
5. Neighbours
6. Govt officials
7. Others

16. What is the minimum balance in the bank account?

1. Rs.0
2. Rs.2-10
3. Rs.50-100
4. Rs.101-200
5. Rs.201-300
6. Rs.301-400
7. Rs.401-500
8. Above Rs. 500
9. We will not answer
10. We don't know.

**17. Bank took how many days to open the bank account after your application?**

- 1. Same day**
- 2. One Week**
- 3. 15 days**
- 4. 1 month**
- 5. more than a month**
- 6. don't know.**

**18. Where did you apply for the bank account?**

- 1. Near house**
- 2. In the bank office**
- 3. Other place**
- 4. Don't know.**

**19. How did you get the pass book?**

- 1. Account holder got it from the bank.**
- 2. Account holder got it from other place.**
- 3. Received pass book at Home.**
- 4. Did not receive the pass book**
- 5. Got it from others.**

**20. Do you save regularly?**

- 1. Yes**
- 2. No**

**21. How often do you save?**

- 1. Daily basis**
- 2. Weekly**
- 3. Fortnightly**
- 4. Monthly**
- 5. During harvest season**

**22. Why do you save?**

- 1. For uncertain days**
- 2. To invest in business**
- 3. For education of children**
- 4. For the future**
- 5. To repay the loan**
- 6. For wedding**



- 7. Other
- 8. Don't know

**23. How many accounts you have opened?**

- 1. 0
- 2. 1
- 3. 2
- 4. 3
- 5. 4
- 6. 5

**24. How many post office savings accounts do you have?**

- 1. 0
- 2. 1
- 3. 2
- 4. 3
- 5. 4
- 6. 5

**25. How many accounts of Self Help Groups do you have?**

- 1. 0
- 2. 1
- 3. 2
- 4. 3
- 5. 4
- 6. 5

**26. How many Chit Fund Accounts you have?**

- 1. 0
- 2. 1
- 3. 2
- 4. 3
- 5. 4
- 6. 5

**27. It has been how long that you opened the bank account?**

- 1. Less than 1 year
- 2. 1 year
- 3. more than 3 years

**28. It has been how long that you opened the account with SHGs?**

- 1. Less than 1 year
- 2. 1 year
- 3. more than 3 years

**29. Why don't you deposit regularly?**

- 1. Less Income**
- 2. We invest in other savings account**
- 3. We keep the money at home or invest in gold jewellery**
- 4. Account is used to get the benefit from the Govt.**
- 5. Others**

# **Appendix-3**

## **SPSS Outputs**