Chapter I

Introduction and Research Methodology

1.1 A historical perspective of modern Microfinance

Microfinance as a tool for ensuring inclusive growth owes its success to the theoretical foundation upon which it has been conceptualized. Theoretically, it has been proved that there is a close link between financial intermediary development and economic growth. Annals of development history of economies in both classical period and modern period have ample proof to support this link. For example, Schumpeter of classical period (as cited in King and Levine 1993), and Luintel and Khan (1999), Beck, Levine and Loayza (2000), Demirguc-Kunt, and Levin (2008) and Honohan (2004) of modern times testify to the significance of financial development for attaining economic growth. With regard to the nature of growth, two points have been proved. First, the causal relationship between financial development and economic growth in the developing countries is more pronounced than in the industrialised countries because of more rapid capital accumulation and productivity growth in such economies (Calderón & Liu, 2002).

Secondly, there is also a nexus between inequality and growth. This point will be clear if one is to regard growth from the point of view of Kuznets (as cited in Greenwood & Jovanovic, 1990). According to this view, the hypothesized relationship between economic growth and the distribution of income growth entails inequality in the initial and the juvenile stages of economic growth. This, in other words, means that developing economies invariably face the problems of inequality in income distribution, therefore, it is the responsibility of the government to formulate policies to ensure inclusive growth – a pattern of growth that not only creates new economic opportunities, but also ensures equal access to the opportunities created for all segments of society, particularly for the poor (Ali & Son, 2007; Beck, Demirguc-Kunt & Honohan, 2009). Encouraged by the proven correlation between financial intermediary development and economic growth and the need for minimizing inequality in income distribution, developmental planners, as the first step, tried directed credit with a view to ensuring inclusive growth. As a result, access to subsidized credit by small farmers turned to be an important paradigm in the strategies of growth for the rural segments of the less developed countries since early 1950s.
Besides the above arguments, adoption of a policy of directed credit was also the result of the recognition of the fact that it was the absence of collateral requirements or trustworthy guarantor arrangements (Zander, 1994) and the high rate of interest in the informal sector (Gonzalez-Vega, 1993) were the reasons for lack of accessibility to credit to the poor, especially to those in the rural areas. However, directed credit eventually failed to deliver goods due to a variety of reasons like failure to improve income and reduce poverty (Yaron, Benjamin & Piprek, 1997), to improve rural productivity and livelihoods (Robinson 2001; Pearce, Davis, Onumah & Butterworth, 2004; World Bank, 2005; Wenner 2002; Hulme & Moore 2007), to ensure sustainability of the programs (Meyer & Larson, 1997), and to ensure proper targeting (Shiroto, de Araujo & Meyer 1990).

The failure of the directed and subsidized credit to deliver goods initiated a shift in the paradigm. And, it was recognized that what small farmers and small entrepreneurs really needed was access to financial services rather than cheap credit (Buttari, 1995). Consequently, since the 1980s, there has been a shift towards financial systems approach to rural finance. A substantial outcome of these developments was the emergence of a set of unusual financial institutions prospering in Bolivia, Bangladesh, and Indonesia with the hope of alleviating poverty and transforming basic economic and social structures through an alternative mechanism called microfinance (Morduch, 1999). Microfinance is about providing small time financial services to the unbanked with financial viability for the intermediaries providing finance. Sooner, microfinance became an effectively manipulated tool in the hands of the governments, which aimed to strengthen the links between financial development, economic growth, and poverty alleviation (Brar, 2004).

The history of modern microfinance begins with the attempts of the Nobel Laureate Muhammad Unus to liberate the poor of Jobar - a village nearby Chittagong University - from the clutches of the local money lenders. Appalled by the pitiable condition of the locals, he decided to find a way out. What he did as the first step was to liberate all the 42 villagers who were indebted to the local moneylenders. As the second step, he gave away small loans to the locals of the village – both men and women. Later, he managed to persuade the local bank in Jobra to start offering credit to the poor as per the novel financial device, which later became a global buzzword - the Grameen Model of Microfinance. The method of granting small time loans tagged with several unique features, as is identified by Karlan & Goldberg (2011), such as Small transactions (whether loans, savings or insurance), Loans for entrepreneurial activity, Collateral free loans, Group lending, Focus
on poor clients, Focus on female clients and Market level interest rates soon found many adaptations throughout low income and marginalized communities in Asia, Africa and America. The various adaptations found all over the world shared the common features of the novel method of granting small time loans, and started to be referred to as Microfinance. Microfinance, when viewed from the modern perspective, is the provision of thrift, credit and other financial services such as money transfer and micro - insurance products for the poor, to enable them to raise their income levels and improve living standards (Karmakar, 2008). Provision of microfinance services and the resultant impacts both at the micro and the macro levels obtained replications almost everywhere, which, invariably, resulted in enormous research outputs.

1.2 SHG Bank Linkage Programme (SBLP)

In India, microfinance, as a poverty reduction intervention, has become the most popular type of intervention aimed at improving the lives of the poor. Microfinance in India is delivered mainly through two models such as Self Help Group (SHG) Model and Micro Finance Institution (MFI) model. The MFI model resembles the Grameen Bank model uniquely formed by the Grameen Bank in Bangladesh. Both the models depend upon some sort of group system at the stage of delivery of microfinance. In the MFI model the members are asked to form into groups of five individuals which are, in turn organised into “centres” of around five to seven groups. The members are to make savings on a regular basis with the MFI as per a schedule fixed by the MFI. The members can take loans from MFIs which they are to use to finance entrepreneurial activities. The main function of the groups and centres is to facilitate financial intermediation among the members. Joint and several liability of the members of the group is the main feature MFI model of microfinance intervention that, in way, guaranteed its success.

In India the most popular replication of microfinance intervention is Self Help Group (SHG) Model. Launched in 1992 by National Bank for Agriculture and Rural Development (NABARD) with about 500 SHGs, and subsequently mainstreamed by the RBI in 1996 with policy guidelines to all banking institutions in the country to grant loans to SHGs without asking for collateral (which NABARD refinanced subsequently), the SHG version of microfinance (when viewed as a policy intervention with official backing, SHG Bank Linkage Program) aims to promote financial inclusion and inclusive growth by ensuring access of rural populations to sustainable and quality financial services. A Self-Help Group,
or SHG, is a group of 10 to 20 people, almost always women, who come together to find a collective solution to their common problems. Mobilized by government facilitation, such groups typically start by pooling their savings and lending to members in need, but then go on to tackle broader livelihood and social problems (Anklesaria Aiyar, Narayan, & Raju, 2007). Group formation process may also be facilitated by an NGO or by a bank or by a MFI or may be evolved from a traditional Rotating Savings and Credit Group (ROSCA). Once an SHG is formed by a homogeneous group of 10 to 20 people residing in the same geographical area, the members of the group will start building up thrift and savings, which they use to distribute among themselves as loans. After a period of six months of existence, the group usually gets linkage with a bank through opening a savings account with the bank. Getting an identity with a financial institution after opening account with it is the first step in becoming part of financially included category of people. Subsequently, the bank grants certain multiples of the savings generated by the group as loans to the members in the name of the group which is generally used by the group to supplement own funds for on-lending to its members. It is presumed that the members will use the loans for financing entrepreneurial activities, which will help them to achieve various empowerment goals sought to be achieved through the Programme. The SHGs need not always go through all the steps mentioned above. There may be SHGs which are more concentrating on savings and loans rather than starting investing in entrepreneurial activities. Groups under SHG model of microfinance intervention performs all the functions as those carried out by the groups under the Grameen model, but they do this on their own. This is so because SHGs are, in effect, micro banks carrying out the functions of collecting savings and granting loans. The facilitating institutions such as MFIs or banks may demand to know about the details of the members and introduce certain restrictions as to the use of loans granted to the SHGs, but the SHG is a financial institution with autonomy. The members have their accounts with the SHGs for their dealings with the loans granted by the financing institutions to the SHGs and not with the MFIs or banks.

1.3 Statement of the research problem

Assessment of microfinance programme SBLP, in the context of Kerala is required mainly on three counts.
First, the status of women in Kerala is quite different from what one sees in places where microfinance has become most popular. Table 1.1 gives the profile of the top ranking two countries in the matter of microfinance intervention. The country wise outreach of the program shows that India ranks first with a total number of 27.77 million active borrowers, while Bangladesh comes second with 19.59 million. This is despite the fact that only 3.44 percent of the total population of India in the year 2012 are actively involved in microfinance programme. When viewed from the point of popularity, undoubtedly, Bangladesh comes first because, there 19.56 percent of the population are linked to microfinance programme.

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
<th>No of active borrowers</th>
<th>Population (15-64)</th>
<th>% of active borrowers to Population (15 - 64)</th>
</tr>
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<tbody>
<tr>
<td>India</td>
<td>1</td>
<td>27.77</td>
<td>808.44</td>
<td>3.44</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>2</td>
<td>19.59</td>
<td>100.11</td>
<td>19.56</td>
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<tr>
<td>Top 10 Countries</td>
<td>1 to 10</td>
<td>69.17</td>
<td>2168.08</td>
<td>3.19</td>
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Although Kerala is a part of the country that is the largest participant in the microfinance programme at the global level, it has got some unique characteristics in respect of status of women which makes it a distinct entity as compared to its mother country and Bangladesh. This is a fact to be counted while assessing the results of the poverty reduction intervention especially designed to achieve its goals by targeting women. The status of women in a society is determined after assessing the level of gender equality enjoyed by the women. While considering the success of microfinance, the level of gender equality in the society where the intervention is introduced calls for special reckoning because the operational success of the microfinance is recognised to be through empowerment of the participants, which, as is argued by United Nations Development Programme (2007), is deeply rooted in gender equality. It is also argued that gender equality is essential for poverty elimination (UNDP, 2014).

The status of women in the State of Kerala is far ahead of the general status of women in its mother country and Bangladesh where the popularity of the intervention is the highest. It is well known that the status of women in a society is measured with the indicators of Gender Equality such as Sex Ratio, Adult Literacy, Infant Mortality, Maternal Mortality Ratio and Life Expectancy at Birth. Each of these indicators measures the well being of women in different dimensions of life like equality of opportunities and health. Sex ratio and Level of
education as measured with Adult Literacy ratio show the equality of opportunities available to women in a society. Drez and Sen (1989), for example, advocate the use of FMR (Female Male Ratio) to bring out the degree of inequality and sex bias in the division of food or health care between females and males in a society. The State of Kerala enjoys a status with regard to Sex Ratio which is at a level markedly higher than certain developed nations that are ranked top by HDI as is shown in Table 1.2. It is interesting to note that Kerala ranks as the 11th in the world whereas all other countries which are ranked above six according to HDI are far behind Kerala in the matter of gender equality as measured by sex ratio. It also shows the status of women in Kerala as against the broad global perspective.

<table>
<thead>
<tr>
<th>Countries</th>
<th>HDI Rank</th>
<th>HDI Value</th>
<th>Sex Ratio Rank</th>
<th>Sex Ratio Value</th>
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<tbody>
<tr>
<td>World</td>
<td>984</td>
<td>0.694</td>
<td>984</td>
<td>0.997</td>
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<tr>
<td>Norway</td>
<td>997</td>
<td>1.009</td>
<td>68</td>
<td>0.932</td>
</tr>
<tr>
<td>Australia</td>
<td>1032</td>
<td>0.937</td>
<td>49</td>
<td>0.999</td>
</tr>
<tr>
<td>United States</td>
<td>1017</td>
<td>0.921</td>
<td>61</td>
<td>0.921</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1038</td>
<td>0.920</td>
<td>44</td>
<td>0.921</td>
</tr>
<tr>
<td>Germany</td>
<td>934</td>
<td>1.084</td>
<td>113</td>
<td>0.625</td>
</tr>
<tr>
<td>India</td>
<td>934</td>
<td>1.084</td>
<td>11</td>
<td>0.625</td>
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Note: * & ** relate to the year 2011

Sources: The HDI for the countries are from UNDP (2013), "Human Development Report 2013 The Rise of the South: Human Progress in a Diverse World", UNDP, New York; and for the State of Kerala it is from: Suryanarayana, MH; Ankush Agrawal and K Seeta Prabhu (2011), "Inequality Adjusted Human Development Index for India's States", UNDP, India. Sex Ratio is the Number of Females for 1000 Males. Sex ratios for the countries except India and Kerala are from: United Nations (2013), * Note: World Population Prospects: The 2012 Revision Key Findings and Advance Tables*, The Department of Economic and Social Affairs of the United Nations Secretariat, United Nations, New York; and for India and the State of Kerala the rates are taken from the Census of India 2011

Not only that the status of women in the State of Kerala is well above the highly rated nations according to HDI, it is far ahead of the status obtained by its mother country and Bangladesh as well. The fact is shown in Table 1.3. Figures show that Kerala is not only different but is superior by a far wider margin. The Human Development Reports reiterate that shortfalls in equality of education and health are reflected in shortfalls of welfare (UNDP, 2013). If viewed from this angle, the position of Bangladesh, which is the birth place of Microfinance or that of India which has provided the broadest coverage for the intervention, is not at all comparable to the level of Kerala. Education in Kerala, as shown by the adult literacy rates, is comparable to the corresponding rates for advanced countries (Economic Survey 2012-13). It is also the highest among the Indian States. In educated society, level of general health will also be high. Drez and Sen (1989) state that the high
The literacy level of Kerala make people more eager and more skilled in ensuring better remedies for ailments.

As is evident from the Table 1.3, the adult literacy rate for Kerala is the highest and it excels the all India average also by a wide margin. The gender parity as measured by the adult literacy gap is the highest in Kerala, for the gap in adult literacy is the least in the case of Kerala. Gender Parity is viewed from the standpoint of life expectancy also. World Development Report (World Bank 2012), views the variables like life expectancy gender wise as an indicator of closing in the gender gap in development. According to gender wise Life Expectancy also, Kerala ranks the top in India.

The people of Kerala, especially the women, are more aware of the health imperatives than their counterparts in Bangladesh and any other part of India, as is reflected in the Infant Mortality rates, Life expectancy at birth and the Maternal Mortality Ratio (MMR). All these indicators are at a much better level than that of India and Bangladesh. It has also to be noted that Infant Mortality Rates of both sexes when compared also reflect the gender preferences for infants prevailing in a society.

Apart from the above indicators, there are further points of evidence that testify to the better health awareness of women in Kerala as compared to all India status. It is interesting to note that more than 99 percent (98.4 percent in 2004, 99 percent in 2005, 99.2 per cent in 2006 and 99.4 percent in 2012) of the women seek medical attention at delivery either at

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<td></td>
<td>MF M F Gap</td>
<td>MF M F</td>
<td>MF M F</td>
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</tr>
<tr>
<td>India</td>
<td>69.3 78.8 59.3 19.6 42 41 44.3</td>
<td>66.21 64.51 68 190</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>57.7 62 53.4 8.6 33.1 35.7 30.3</td>
<td>70.29 69.55 71.08 170</td>
<td></td>
<td></td>
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<tr>
<td>Kerala</td>
<td>93.8 95.9 91.3 4.7 12 10 13</td>
<td>74 71.5 76.9 66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>World</td>
<td>84.1 88.6 79.9 8.7 34.9 37 32.6</td>
<td>70.78 68.72 72.93 210</td>
<td></td>
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</tbody>
</table>

Notes:
1. Adult Literacy Rates (15 years and above) are for the year 2011; Adult Literacy rates for Bangladesh is from: www.worldbank.org The figures for India and Kerala are arrived at from the C-13 Appendix - Single Year Age Returns by Residence, Sex and Literacy Status, Census 2011.
3. Life Expectancy at Birth for India and Kerala are from Economic Survey 2012-13 available at: http://indiabudget.nic.in
4. Maternal Mortality Ratio (MMR) is the number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births (Central Statistical Organisation, 2012). "Millennium Development Goals India Country Report 2011, Ministry of Statistics and Programme Implementation, Government of India), Maternal Mortality Ratios for India and Kerala are from: Registrar General, India (2013), “Special Bulletin on Maternal Mortality in India 2010-13”, Sample Registration System, December 2013, Office of the Registrar General of India, Ministry of Home affairs, GOI.
government hospital or private hospital way back from the year 2004 when the State of Tamil Nadu, which claims the second position with regard to maternal care during childbirth, had only 74.4 percent of the births treated at a hospital (Registrar General, 2009; 2013). Almost 100 percent of the women in Kerala get antenatal and postnatal care in hospitals (International Institute for Population Sciences, 2008). The morbidity rates of Kerala (based on the self-reported ailments), which is the highest in India, also reflect the same feature of Keralite women. It is also noteworthy that these special features of Kerala, which are documented by researchers attributing to various reasons such as public action (Drez & Sen 1989), redistribution measures like land reforms, and a wide network of the public distribution system (Franke & Chassin, 1995), historical factors, the welfare-oriented policies of the State Government, and the role of a socially engaged population (Kapur, 1998) have been prevailing in Kerala long before the microfinance intervention started getting attention of the planners across the globe. As early as in 1950, the level of the some of the above discussed gender equality indicators of Kerala were at a far higher level than that of India; female literacy rate in Kerala was four times higher than that of India (32 percent as compared to the 7.9 percent at all India level) and a female life expectancy of 42.3 years as against the all India level of 31.7 years. It is doubtless that these elements have positively influenced the status of women in Kerala. And, if viewed from the point of view of gender equality, one can easily understand that the setting in Kerala is more conducive for gender development in the way envisaged by UNDP than in the two top-ranked countries in microfinance much earlier than the development planners put theories of empowerment into practice through microfinance intervention.

Secondly, arguments are that the effectiveness of microfinance as a poverty reduction intervention is highly debatable on account of its context specificity as well. The argument that, if sufficient finance is provided to the poor, the positive impacts will necessarily follow is not universally accepted because the evidence regarding such impact is challenged either on the grounds of questionable methodological rigour or of proving causality or fungibility or context specificity of whatever impacts is proved. After rigorous review of the available evidence from various studies, authors claim that the impacts are mainly context specific (Gaile & Foster 1996; Hulme 2000; Sebstad & Cohen 2000; Brau & Woller 2004; Makina & Malobola 2004).

Roodman and Cohen (2009) arrive at the opinion that even after 30 years after the introduction of microfinance, unquestionable statistical evidence in favour of positive
impact of microfinance is absent from the three most famous and widely quoted studies authored by Pitt and Khandker (1998), Morduch (1998) and Khandker (2005) and is scant scarce in the literature as a whole. In other words, the programme gives results subject to the context and implementation style. In the present case, as is described above, the circumstances in the State of Kerala are unique which requires treating the evaluation of the SBLP separately.

Thirdly, to the best of knowledge of the researcher, there has so far been no proper assessment of the results of microfinance intervention in Kerala, which pay due attention to Self Selection. It is clear from the introductory part of this chapter that, impact studies have triggered off controversy on the basis of methodological inappropriateness, and on the basis of contradictory results obtained from different studies conducted in different parts of the world, where the intervention has become popular. Except a few, there have been no attempts to make a methodologically acceptable assessment of the intervention, especially in India, let alone the State of Kerala. Many of the studies that were conducted in India after the launching of SBLP were descriptive in nature. Especially, the pioneer attempts to evaluate SBLP under the auspices of NABARD during the initial decades which vehemently asserted the positive outcomes of SBLP were rather narrative in nature, without accounting for the unavoidable biases that crop up during the process of assessment. At an organisational level, it was NABARD, which first initiated impact study of SBLP. Two studies were commissioned by the Micro - Credit Innovations Department of NABARD and carried out by Puhazhendi and Satyasai (2000) and Puhazhendi and Badatya (2002) (hereinafter referred to as first and second studies respectively). Both the studies had the objective of measuring the impact of SBLP on the living standards of the members of SHGs. The first study covered 560 SHG members from 223 SHGs in eleven States of five different regions of the country, viz., Central, Eastern, Northern, Southern and Western regions, whereas the second study covered 115 SHG members from 60 SHGs of three States in eastern region, viz., Orissa, Chattisgarh and Jharkhand. Selection of the sample was done after considering only the cumulative representation of the each of the five regions, and no attempt was made to ensure the methodological indisputability of the procedure. The basic assumption that was prominent in the selection process of the sample was that SHGs having completed one year of bank linkage would have fairly well stabilized, and the perceived benefits could easily be attributed to the membership in the programme. The studies, which were essentially post hoc in nature is based on post stratification of SHGs according to the
age of the groups. Further, the groups were again post stratified according to the nature of facilitation. The first study adopted post stratification such as bank facilitated groups, NGO facilitated groups and groups in which NGOs acted as financial intermediaries, whereas, in the second study the post stratification was only on the basis of bank facilitation and NGO facilitation. Data on various economic and social variables like income, savings, investment, asset structure, employment, borrowing, consumption pattern, access to public utilities, social empowerment behavioural changes, were collected to assess the impact mainly through a retrospective one time multistage random sample survey with a pre-structured schedule. States and districts were selected purposively. The impact was measured as the difference in magnitude of the selected parameters between the pre-SHG linkage and post-SHG linkage situation of members of SHGs and their households. The financial parameters for pre and post-SHG member situations were measured in the reference year of 1998/99 for the first survey and 2001/02 for the second survey respectively. The analysis of the impact of the program on the SHG members showed positive results in several areas such as asset position, average savings per member, average borrowings, repayment performance, employment per household, and average net Income per household enhanced significantly. The questionability of the study results is in the methodological aspects adopted by the investigators.

In a later paper, Basu and Srivastava (2005), based on a survey of rural access to finance in India taking 6,000 households argue that microfinance has helped to fill the gap experienced by the rural masses in getting finances and they recommended massive scaling up of the programme powered by diverse approaches of microfinance. Except for the randomised control study undertaken by Banerjee, Duflo, Glennerster and Kinnan (2015), there have been only a few attempts to deal with the impacts of microfinance in general and SBLP in particular after providing for the biases.

The present endeavour is necessary because of the context specificity of the macro settings of the State of Kerala and lack of attempts that pay attention to the various problems which can be attributed to the methodological framework. Besides, the study attempts to frame a conceptual framework for the assessment of the results of the intervention led by SBLP which is easily imitable on account of theoretical sturdiness and contextual applicability.
1.4 Research gap

As of the results to be obtained through the intervention of microfinance and for that matter, through the SHG model of microfinance also, two pronged goals are expected; empowerment of the participants after bringing them within the financial inclusion net. It is through the attainment of these twin objectives that microfinance is supposed to attain poverty reduction. While considering the first objective of empowerment in various dimensions of a participant’s life, microfinance is one of the most contended topics as a tool for poverty reduction in development parlance. Many of the research results have been questioned on the grounds of methodological robustness as well as on the grounds of the nature of the results claimed to have been achieved by the implementation of the Programme. Methodological robustness is questioned on the grounds of programme placement bias, sampling bias and chances of bias arising out of Self Selection of the participants into the programme. Programme placement bias can be tackled only in Randomised Control Techniques (RCT), and, it requires elaborate methods to tackle the issue. It is alleged that there have been no attempts to ensure that the sample selection regarding control groups, if any and the relevant treatment groups is free from sampling bias. Besides, the critics of the Programme raise the argument that the positive outcomes attributed to the intervention comes to an exaggerated scale because of the chances of Self Selection by participants, whereby, already well empowered individuals decide to enter into the Programme. In addition to the methodological robustness, the studies have been criticized for the nature of the outcomes; while many supporters vehemently bring out the benefits of the programme, the critics hold rather cynical viewpoint that it has brought forth only negatives. There are also others who raise doubts about the impact of the microfinance programme and state that the evidence is inconclusive.

Disentangling Self Selection bias from the study results is essential to get a true view of programme effects, because it pales the results obtained under microfinance interventions. Self Selection bias has been dealt with in the impact assessment studies by adopting Randomised Control Technique, cross sectional method and before and after status comparison. Each method bears certain drawbacks which makes the procedures of assessment unsuitable for replication.
1.4.1 Randomised Control Technique in impact evaluation

Among the ways adopted to deal with methodological issues, the best method is Randomised Control Technique (RCT), which bears its name and features from laboratory experimentation procedures. It involves randomly assigning sample units to treatment groups and to control groups with a view to minimising selection bias before the treatment begins. It helps the researchers to assess the effects of the treatment by comparing with the control groups after keeping the other variables constant. The biases like programme placement and selection are taken care of in randomised control technique of evaluation. The disadvantage is the cost and time involved in carrying out the process, especially in poverty intervention techniques like microfinance. Deciding the control groups and treatment groups which are exactly alike before the treatment begins is also a challenge. The Control groups and treatment groups must be spatially located sufficiently apart so that the spill over effects will not violate the control groups. The evaluation procedure has to be designed ex ante (White, 2011), which makes the procedure necessarily panel based data collection. And, panel data are mandatory for the method. Some of the universally accepted methodological procedures have been adopted in randomised control studies. For example, Banerjee, Duflo, Glennerster and Kinnan (2015), in the first randomised control study of microcredit in India which was carried out over a period of 3.5 years, followed meticulous randomisation procedure. It was after an elaborate procedure that the programme was implemented and the experimental study conducted. However, the study is criticised on the grounds that the control group and treatment group were not exactly identical and attribution of the changes in the treatment group could not have been reasonable.

Karlan and Zinman (2007) also have undertaken randomized control experiment in Philippines and the resultant paper gained the attention of the academic world. In order to deal with the usual biases of sample heterogeneity and programme placement as a result of interference of policy makers, the authors resort to an entirely novel and elaborate randomisation method. The method included collaborating with the financing agencies from the implementation stage itself with a view to selecting exactly alike control and treatment groups are exactly except for the treatment meted out. But, this cannot be true, given the procedure adopted for the purpose.

The other method is one which can generally be named as quasi experimental, in which a control group is selected and the effect of an intervention is investigated by comparing the
treatment group with the control group. Some authors insist on identification of control groups and treatment groups before the imposition of the programme, which makes the method different from that of RCT with respect to random assignment of members to both the groups. Aussems, Boomsma & Snijders (2009) argue that post hoc comparisons produce similar results, where treatment and comparison groups are compared and conclusions drawn after assigning treatments. In other words cross sectional studies involving with or without treatment and control groups are post hoc comparisons. There are variants among the post hoc comparison methods. One of the most widely quoted studies on microfinance belonging to this category took place in Thailand undertaken by Coleman (1999).

1.4.2 Cross sectional studies

And, among the ways adopted to deal with Self Selection, the commonest method is incorporating control groups, in cross sectional studies, which are post hoc studies. This method usually involves matching, on a ‘difference in difference basis, of ‘before and after’ data on variables related to empowerment of the respondents. Here, randomisation of programme placement does not take place. Many studies have been undertaken keeping in line with this method; especially earliest research studies on the impact of microfinance granted by the pioneering institutions like Grameen Bank (GB) and Bangladesh Rural Advancement Committee (BRAC). In two successive studies on the effectiveness of the targeted credit program of Grameen Bank in 1988, Hossain (1988; 1988a) came out with all glorifications for the program. The post hoc study was framed as panel study of the Gameen Bank clients in the years 1983 and 1985. The author seeks to deal with selection bias by incorporating a probit model involving several variables like age, family size, education, land holdings, non fixed capital before joining the credit programme, which helps to apply difference in difference method of comparison of before and after status of the control and treatment groups. And, it is found that there is evidence for Self Selection. Disadvantages connected with the study are the ones connected with control groups. It is almost impossible to arrive at control groups which are identical with the treatment groups except for the programme impacts.

Another variant of post hoc method of impact evaluation stage wise approach to assess the impact, instead of going for panel data. Some authors went for multi stage approach to assess the impact of credit programs on contraceptive use and fertility in Bangladesh and found that the benefits claimed to have been achieved on account of credit programme stand
diluted by Self Selection. Pitt, Khandker, McKerman, and Latif, (1999), estimated the impact of female and male participation in group-based credit programs on reproductive behaviour on a multi stage basis. The authors resorted to econometric methods and found out Self Selection of participants. The drawback of two stage approach is that if the data available are cross sectional, this method is inappropriate. Besides, it requires a variable that influences membership in credit groups and at the same time does not influence the interests of outcome in demographic terms.

1.4.3 Before and after status comparison

Comparison of the status of the participants regarding certain selected variables before joining the micro credit programme and after some time is one of the easiest methods adopted by experts in assessing the impact of the programme. A comparison of group of non participants may be included in the study, in which case the comparison involves the before and after status of both the groups of participants in the programme and non participants. Amin, Hill, and Li (1995) use this method. In subsequent research works also the Self Selection bias has been mentioned by respective authors. Amin, Li, and Ahmed (1996), in a 1996 study of five credit programmes and family planning, which uses the same data set as above, employ a rather “naïve” method of dealing with Self Selection because the data from programme members and non members were combined and comparison was made with data collected from women in non program areas in the immediate vicinity of programme area. The other studies which employ similar method are those by Steele, Amin and Naved (1998) and by Rahman, and DaVanzo (1995).

There are studies which did not resort to random assignment of samples to groups of beneficiaries and non beneficiaries, but attempted to control selection bias by adopting econometric models including logistic regression models in cross sectional studies. For example, Amin and Li (1997) and Amin, Becker and Bayes (1998) in their studies adopted such methods.

Another variant of post hoc method is incorporating control variables into the methodological framework of the study. Hashemi, Schuler and Riley (1996), in a later paper, address the problem of Self Selection by incorporating control variables such as age, number of children, religion, education and assets at the time of joining the programme in a multivariate regression model, besides comparing the participants and non participants of the Grameen Bank villages to those of non programme villages and incorporating the time
of joining in the credit programme in the analysis. They put up the argument that the
minimalist credit programs like that of GB and BRAC do empower the participants. Some
studies have incorporated a single indicator which explains the character of the respondents
prior to joining the programme with a view to measuring Self Selection (Schuler and
Hashemi, 1996). The authors claim to have dealt with the chances of Self Selection in the
study by assigning an indicator, contraceptive use, which explains the respondent’s
behaviour as to the use of contraceptives before joining the programme. However, it is
difficult to arrive at a particular variable that is likely to influence the decision to join the
programme. Besides, none of the other variables which are likely to have caused Self
Selection of a respondent into the programme is taken into account.

One of the easiest methods among post hoc studies is adoption of members who have just
signed into the programme as comparison group with more experienced members in the
group. In India, Husain, Mukherjee, and Dutt (2012) provided for the difference in the
selected variables of newly inducted members in the programme and older members. The
logic behind this approach is that if only programme effects prevailed, either the newly
inducted members will not be empowered, or the older members will be more empowered
than the newly inducted ones. On the contrary, there will not be significant difference in the
empowerment levels of the two groups if Self Selection prevailed. Here the control group is
new members, while the treatment group is older members. The major assumption of this
method of controlling Self Selection is that the control group was identical with the
treatment group before the introduction of the credit programme. This is almost impossible
since the study is only a cross sectional one and not longitudinal. In order to circumvent this
issue, the authors claim that they compared only time invariant characteristics of both the
groups, which is not practical always.

Methods of dealing with the main issues suffer from different drawbacks. RCT is
impractical on account of the cost and methodological unwieldiness involved. Besides, RCT
has to be carried out ex ante. The State of Kerala is a place where the SBLP has made
inroads into all areas; therefore, RCT is procedurally inapplicable, even if the other
restraining factors like time and cost are taken for granted. The other methods are suffering
from the demerits already stated.

The above methods adopted in various assessment studies bear drawbacks either in respect
to the context specificity or in respect of time and cost involved. Microfinance in India has
been in existence for a long period of time and the programme in the State is present everywhere that there is no scope for randomisation in placement of the programme. Other methods discussed above also bear non suitability on account of the drawbacks stated when each method is discussed. Moreover, Kerala is a place whose macro settings bear several unique features which bestow it with a unique status among the advanced countries with respect to human developmental status in general and the status of women in particular. This very feature of the State of Kerala calls for special reckoning in the evaluation of the SBLP on account of the high chances of Self Selection into a poverty reduction intervention like that of SBLP. Self Selection into the microfinance intervention of SBLP is more a matter of concern in the State of Kerala than anywhere else because of the unique developmental status of the State, especially when viewed from the perspective of status of women.

Above all, except in the case of few studies, there have been no attempts to make a methodologically acceptable assessment of the intervention, especially in India, let alone the State of Kerala. Many of the studies that were conducted in India after the launching of SBLP are descriptive in nature. Studies which were conducted according to the so called RCT like that by Banerjee, Duflo, Glennerster and Kinnan (2015) also are not free from criticisms. The pioneer attempts to evaluate SBLP under the auspices of NABARD during the initial decades which vehemently asserted the positive outcomes of SBLP were rather narrative in nature, without accounting for the unavoidable biases that crop up during the process of assessment. In other words, there exists a gap in the research endeavours which take into account the methodological lacuna as well as the cost and time involved. The methodological aspects have to be understood, especially, on account of the incompatibility of the control groups and treatment groups. The present endeavour is to fill this gap by adopting a specially designed methodology for evaluating the respondents on the basis of the chances of Self Selection after collecting data, which augments the chances of getting more compatible comparison and study groups-Self Sected Ones and Not Self Selected Ones. The endeavour is to ensure a procedure free from the drawbacks found in the other attempts mentioned.

1.5 Objectives of the study

The main objective of the study is to evaluate SHG Bank Linkage Programme in Kerala. And, the specific objectives are:
1. To evaluate the progress of the SBLP in India since its inception.

2. To determine the extent to which the promised goal of microfinance – Financial Inclusion - has been achieved through the SBLP.

3. To develop a framework for assessing the extent of Self Selection among the participants of the SBLP and also assess the extent of Self Selection among the participants of the SBLP.

4. To assess the empowerment status of the Participants of the SBLP in Kerala.

5. To ascertain whether there is difference between empowerment levels of Self Selected participants and Not Self Selected participants.

6. To determine whether there are differences among the participants from different settings of the macro circumstances in which they live.

1.6 Hypotheses

The study is based on the following hypotheses

1.6.1 There is significant difference among the States of India with regard to the efficiency in management of credit linkage as measured by the Index of Efficiency in Management of Credit Linkage (IE) by financial institutions towards various States/Regions regarding recovery of loans over each year of study.

1.6.2 There is significant difference with regard to the efficiency in management of credit linkage, as measured by the Index of Efficiency in Management of Credit Linkage (IE), in each state by financial institutions as regards their policies towards recovery of loans over the period of study.

1.6.3 There is significant difference among the States/Regions in the percentage of Non Performing Assets (NPAs) during the each year of study.

1.6.4 There is significant difference in the percentage of NPAs of states grouped into regions as the progressive years have influenced the percentage of NPAs.

1.6.5 There is significant difference in the IFI of States grouped into regions.

1.6.6 There is significant difference in the IFI of each State as years progress.

1.6.7 There is significant difference in the Index of SBLP (ISBLP) of states grouped into regions.

1.6.8 There is significant difference in the ISBLP of each State as the years progress.
1.6.9 There is significant difference in the proportion of the respondents from the districts as to their distribution within Prime Age group.
1.6.10 There is significant difference in the proportion of the respondents from the districts as to their distribution within Third Age group.
1.6.11 There is significant difference in the proportion of the respondents from the districts as to their income level.
1.6.12 There is significant difference in the proportion of the respondents from the districts as to their status of education.
1.6.13 The stint of the respondents belonging to the different districts in the SHGs is significantly different.
1.6.14 The occupational status of the heads of the households of the respondents belonging to the different districts in the SHGs is significantly different.
1.6.15 The Fall Back position of the respondents is significantly differs according to districts.
1.6.16 The Self Selection status of the respondents from the three districts is statistically different.
1.6.17 There is significant difference in the district wise Self Selection status of the respondents empowered at the Household Level.
1.6.18 The intra district distribution of empowerment status respondents at the Household Level according to their Self Selection status is statistically different in each district.
1.6.19 The Self Selection status of the respondents of the three districts who are empowered neither economically nor at the Household Level is significantly different.
1.6.20 The preference for supporting children’s education using the income from Income Generating Activities (IGAs) among those who are empowered at the Composite Level of empowerment differs according to Self Selection status of the respondents’ district wise.
1.6.21 The spending habits of respondents of the three districts on consumption from the income earned from IGAs differ according to Self Selection status significantly.
1.6.22 The empowering properties of SHGs (Organisations) and the empowerment status of the respondents at the Organisational Level are significantly correlated.
1.6.23 There is significant difference between the proportions of the Not Self Selected respondents and Self Selected respondents who have gained empowerment at the Organisational Level in the sample districts.
1.6.24 The respondents of each district constitute heterogeneous groups irrespective of Self Selection status when viewed from the point of empowerment at the Organisational Level.

1.6.25 There is significant correlation between the empowerment status of the respondents at the Household Level and the Socio Political Level.

1.6.26 There is significant correlation between the empowerment status of the respondents at the Organisational Level and the Socio Political Level.

1.6.27 There is significant difference in the district wise empowerment status of respondents at the Socio Political Level.

1.6.28 The respondents of each district constitute heterogeneous groups irrespective of Self Selection status when viewed from the point of empowerment at the Socio Political Level.

1.6.29 The Self Selection status of respondents who are empowered at the Composite Level is significantly different from district to district.

1.6.30 Respondents from each district constitute homogeneous group as regards their status of empowerment at the Composite Level and Self Selection.

1.7 Methodology of the study

1.7.1 Research design

The research is carried out with descriptive and analytical methods.

1.7.2 Period of study

The period of study for objectives based on secondary data is the years from 2006-07 to 2015-16. The period divided into two phases such as Phase I and Phase II depending upon the year in which the impact of the Andhra Pradesh Crisis in the field of microfinance in India started to manifest in the different variables selected for the purpose of evaluation. The behaviour of the various indicators identified for analysing the progress of the Programme is understood as being varying for the two Phases according to the impact of the microfinance crisis in the State of Andhra Pradesh.

The first two objectives are based on secondary data collected from the publications of NABARD, Status of Microfinance in India, for various years from 2006-07 to 2015-16 and various other sources of Census India and the office of the Registrar General of India. As regards the first objective, the indicators used are number of SHGs savings linked and credit linked State wise, their respective amounts of savings and loans, savings per SHG, loans sanctioned per SHG and laons outstanding per SHG, the role of financing institutions like
commercial banks, RRBs and Cooperative Banks in SBLP as represented by the amounts of savings mobilised and loans granted along with the number of SHGs savings linked and credit linked and the rate of penetration of SBLP as represented by the number of SHGs per thousand of population of each State. For the second objective, two indices known as Index of Financial Inclusion and Index of SBLP have been devised with a view to finding out the extent of contribution of the SBLP to achieving financial inclusion within the country

1.7.3 **Sources of data**

Both primary and secondary data have been made use of in the present study.

1.7.3.1 **Secondary data**

Secondary data have been collected from the publications of NABARD - Status of Microfinance in India, office of Census India, from the websites of the office of the Registrar General of India, Microfinance Information Exchange, World Bank, Office of the Registrar General of India, Ministry of Home affairs, Government of India, the Vital Statistics Division, Department of Economics and Statistics, Thiruvananthapuram and Human Development Reports of various years.

1.7.3.2 **Primary data**

Primary data have been collected by administering a pre tested schedule of questions to the respondents of the survey.

(i) **Sample design of the study**

The broad objectives from 3 to 6 mentioned in this chapter guide the method of sample selection and primary data collection. The method of data collection involved a structured questionnaire. Detailed questionnaire is given in Appendix I, which covers various levels and domains of empowerment of the respondents who were selected from the participants of the SBLP.

(ii) **Population of the study**

Population of the study is the members of the SHGs formed and linked to banks as on 31 December 2014 in the State of Kerala. The year has been determined to be 2014 because the respondents of the study are to be having at least two years of experience in the SHGs in order to be included in the sample of the study, therefore, when the survey was conducted in 2016, they would have two years of experience in the groups.
(iii) Sample selection

The procedure for selection of sample for the study has been elaborately designed keeping in view of the objectives of the study. The objective is to determine whether the level of empowerment is influenced by the observable macro settings of the place where the participants live. With this objective in view, as the first stage in determining the sample, all the fourteen districts of Kerala were categorised into three geographical regions: The Southern Region consisting of the districts Trivandrum, Kollam, Pathanamthitta and Alappuzha; the Central Region consisting of Kottayam, Ernakulam, Idukki and Thrissur; and the Northern Region consisting of Palakkad, Malappuram, Kozhikode, Wayanad, Kannur and Kasaragod. Thiruvananthapuram from the Southern Region, Kottayam from the Central Region and Palakkad from the Northern Region were selected finally on the basis of an Index of Women Development framed for the purpose. At the same time, the districts were ranked according to the Women Development Index (WDI) especially designed for the purpose (detailed framework of the WDI is given in the tools of analysis towards the end of Chapter I). The WDI has been framed largely from the point of view of the status of women in the society. The Index is framed from such a point of view instead of the usual perspective of general development because microfinance is an intervention primarily aimed at reaping fruits of development by upgrading the status of women. After ranking the districts according to the WDI, in the second stage, selection of the districts was accomplished. The ultimate selection of the districts has to be such that one district from each region is to be included in the sample of districts so that adequate representation for each region is ensured. The top ranking three districts are distributed in such a way that the topmost district (Pathanamthitta) is in the Southern Region and the next two districts (Kottayam and Ernakulam respectively) fall in the Central Region. For making comparison of the performance of SBLP in different macro settings, one of the top ranking districts had to be included. It was decided that the top ranking district to be included in the list of sample districts would be selected at random from the three top ranking districts – Pathanamthitta, Kottayam and Ernakulam. This resulted Kottayam being included in the second stage of sampling as the one having advanced women development status. Selection of Kottayam from the Central Region closes further chances for other districts from the region. The most backward district among the fourteen districts has necessarily to be among the sample districts; therefore, Palakkad from the Northern Region was included in the sample districts, because the purpose is to compare the empowerment status of the participants belonging to
backward macro settings as well in the study. Besides, Palakkad has the distinctive feature that it has the largest number of SHGs in the whole of the State. Thus, there is no chance for any other districts from the Northern Region to be included in the sample districts. And, from the districts of Southern Region except Pathanamthitta, Trivandrum was selected at random, which happens to be the ninth ranking one in terms of WDI among the districts of the State of Kerala. While making the selection of the district from the Southern Region, Pattanamthitta was excluded from the list because it was included in the list of top ranking three districts from which Kottayam was selected as the advanced district. The above a selection procedure for the districts ensures the comparison of the effectiveness of microfinance intervention in districts with different developmental settings.

At the third and final stage, the participants are selected from the three districts in the following manner. It is decided that the respondents of the survey have necessarily to be from those participants of the SBLP who are engaged in IGAs. SHGs under SBLP are mainly two types; First type is only savings and lending groups which are engaged in generating internal thrifts and savings and rotating the generated amount among themselves as loans according to certain rules. Second type is that which encourages members to undertake Income Generating Activities (IGAs) of various types. The present study is limited to Respondents belonging to SHGs with Income Generating Activities. In Kerala most of the people who are members of SHGs have opted membership in Kudumbasree units, therefore, the survey is limited to members of neighbouring units (SHGs) under the poverty eradication programme of the Government of Kerala–Kudumbasree Mission. Since the population as to the number of SHGs with IGAs is not completely defined, the sampling is not done as a proportion of the population of SHGs engaged in IGAs. Instead, the members of groups with IGAs in each local body such as Panchayats, Municipality and Corporation were informed through the authorities and meetings of those who were ready to share information were arranged in the conference halls of the local bodies. The members were informed about the meeting for data collection at least one week in advance, which gave the members sufficient time to arrange their household chores appropriately and come for the meeting. And, the number of respondents from each district is as follows: Trivnadrum - 330; Kottayam - 202 and Palakkad - 248. Thus, the total Sample is constituted by 780 respondents belonging to various SHGs engaged in IGAs.

The objective of the study is also to assess the extent of the incidence of Self Selection among the participants of the SBLP and compare the dynamics of empowerment among the
self selected respondents and not self selected respondents; therefore, the sample respondents from each district are classified into Self Selected respondents and Not Self Selected respondents according the Self Selection Index (SSI) framed with variables identified for representing resources and agency of the respondents. Thus, the Self Selected ones from the respondent of each district constitute the comparison group identified for the purpose of the investigation. As against the usual method of identifying the chances of Self Selection based on the level of empowerment in various domains of empowerment of the participants at the time of joining the programme of microfinance, the present study devised a Self Selection Index and categorised the respondents according to their self selection status. And the self selected ones are decided to be the comparison group. The various dimensions and levels of empowerment selected for the evaluation of the impact of the programme on the Respondents are evaluated for both the groups and compared. The superiority of the method of evaluation is that, whereas in other methods of evaluation, finding an appropriate comparison group is cited as the major problem, in this method, the comparison group is generated internally after the data collection which deals with the problem arising from universality of programme placement. Implementation of programme on a universal basis, as stated earlier, prevents selection of appropriate comparison group extremely difficult. It is also true that, even when the placement of the programme can be flexibly moderated by the investigation team, the selection of appropriate control groups has not gone without being criticised as in the study by Banerjee, Duflo, Glennerster and Kinnan (2015).

(iv) Primary data collection

The study is mainly cross sectional in nature involving both analytical and descriptive methods. The respondents were asked to give replies to questions relating to their status at the time of joining the programme. The data were collected by administering a structured schedule of questions which covers social and economic background of the respondents and various dimensions of empowerment. Before the final data collection, a pilot study was conducted in the district of Palakkad among the possible respondents and the schedule of questions was restructured and finalised. Respondents were explained each question after exhibiting the soft copy of the schedule through a LCD projector and were asked to fill in the schedule by themselves. Those, who could not do the filling in by themselves, were helped by the other member from the group. The researcher himself and the assistants also helped those who needed further explanation of questions.
When the sample from each district is collected and evaluated according to the Self Selection Index the distribution of Not Self Selected respondents and Self Selected appear as follows. In Trivandrum, out of the total sample of 330 respondents, 194 are Not Self Selected respondents and 136 are Self Selected respondents, whereas, in Kottayam the two categories are 108 and 94 respectively. In the most backward district of Kerala, Palakkad, the two categories are 210 and 38 respectively. On an average, two members each from each SHG were interviewed for the purpose of the present study. Thus, the number of SHGs from which members were interviewed is 165, 101 and 124 from Trivandrum, Kottayam and Palakkad respectively.

1.8 Tools of analysis

The major tools of analysis employed in the present study can be classified as common tools and those which have been constructed specially for the purpose of the study by the researcher. Those which belong to the first category are Repeated Measures ANOVA, Chi Square Test, Compound Annual Growth Rate (CAGR) and Multiple Dichotomy Analysis Method.

The tools which belong to the second category have been framed separately for analysing secondary data and primary data. The details of the various tools are given in Table 1.6.

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<th>Particulars</th>
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<td>1</td>
<td>Women Development Index (WDI)</td>
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<td>2</td>
<td>Index of Efficiency in Management of Credit Linkage (IE)</td>
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<td>3</td>
<td>Index of Patronage (IP)</td>
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<td>4</td>
<td>Index of Financial Inclusion (IFI)</td>
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<td>5</td>
<td>Index of SHG Bank Linkage Programme (ISBLP)</td>
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<td>6</td>
<td>Self Selection Index (SSI),</td>
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<td>Index of Empowerment at the Household Level (I1)</td>
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<td>Index of Empowerment at the Socio Political Level (I3)</td>
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<td>Index of Composite Empowerment (ICE)</td>
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<td>Index of Self Esteem (ISE)</td>
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<td>12</td>
<td>Index of Self Esteem at Household Level (IS1)</td>
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<td>14</td>
<td>Index of Self Esteem at the Socio Political Level (IS3)</td>
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1.8.1 Woman Development Index (WDI)

Women Development Index (WDI) is the index framed for the purpose of ranking the 14 districts of the State of Kerala from the perspective of the developmental status of women belonging to each district. The perspective of women is important because SBLP is mainly targeted towards women. Here, the unit identified for the purpose of measurement of
development status is each district of the State of Kerala. There had been many earlier attempts to categorize the nuances of development both at the national level taking the States as the basic units of analysis and at the State level taking various districts as the basic units. Almost all those attempts suffered due to the unwieldiness arising out of the wide geographical coverage or due to the large number of indicators used. And, none of the studies aimed at grouping or ranking the districts, especially of Kerala according to the indicators showing the status of women or, for that matter, for evaluating a poverty reduction programme like Microfinance.

A review of the previous attempts to evaluate the level of development across the States in India and various districts in certain States gives the following picture. Pande Committee appointed by the Planning Commission in the year 1968 identified 238 districts as industrially backward on the basis of six indicators including per capita income. Kannan (1999) emphasized the development status of the State of Kerala vis-à-vis India and many of the leading economies of Asia including China on the basis of several indicators including those relating to income-poverty, educational attainments from literacy to reading habits, and a number of basic health indicators like IMR, Incidence of child undernourishment, sex ratio and life expectancy at birth. He attempted no district wise classification according to development level which gave special attention to the status of women. Narain, Rai and Bhatia (1999), with the help of a composite index based on an optimum combination of thirty economic indicators, studied the level of development of different districts of the States of Andhra Pradesh, Kamataka, Kerala and Tamil Nadu. The unwieldiness of the study is evident in the number of variables and indicators involved.

The WDI for the present purpose is framed on the assumption that the level of development of a district with the women in focus is composed of the average achievements in the four basic dimensions such as Standard of Living, Social Status of Women, Health Status of Women and Demographic Penetration of Banking facilities. Demographic Penetration of Banking facilities has been included with a view to measuring the spread of banking infrastructure. The rather odd dimension of Demographic Penetration of Banking facilities is incorporated in the formal attempt to measure the development status of women in each district because microfinance seeks to achieve the developmental objectives by enhancing the inclusionary habits of the poor also, and an absence or presence of banking infrastructure as measured by the number of bank branches per 10000 of population is deemed to be influencing the development status of the district.
1.8.1.1 Standard of living

Standard of living is proxied by the measure of per capita income as in the case of Human Development Index. Measures relating to national income are recognized as the best measure of standards of living (Preston, 1975). Here, the District level Per Capita Net District Domestic Product (index value designated as $\pi$) is taken as the indicator for the standard of living of the people.

1.8.1.2 Demographic penetration of banking facilities

Easy availability of the banking services to the people is an important measure of the level of financial inclusion. The important link between better financial inclusion and higher economic growth is discussed in Chapter I. The level of financial inclusion is gauged by number of bank offices (per 10000 of population) in each district and the related index value is designated as $\iota$.

1.8.1.3 Social status of women

There is a definite and positive role for women in development. And, it can be surmised that societies that bestow more equal status on women as that on men are likely to be more developed. Since the launching of the World Bank’s ‘Gender Mainstreaming Strategy’ in 2001, the importance of women in economic development has gained global attention (Dollar & Gatti 1999; Klasen 1999). This research program unequivocally highlighted that societies that discriminate by gender tend to experience less rapid economic growth and poverty reduction than societies that give equal treatment to both the sexes (World Bank 2001). Then it is only logical to state that societies that bestow a higher degree of equality on both sexes tend to be more advanced in the path of growth. Sen (1987) also subscribes to the same view while advocating the necessity of treating gender as a force of its own in development endeavours. However, there is also a conclusion by UNDP (2011) employing a complex measure that includes life expectancy, wealth, and education, that there is no country that treats its women as well as its men. Now the only possible way is to consider the position of each country, or society for that matter, in the domain of Status of Women relatively to one another so as to be used as the measures of level of development. And, in the present case, the position of each district of Kerala in the domain of Social Status of Women is ranked relatively to one another.
Social status of women vis-à-vis men is sought to be captured by the level of the two indicators, viz. Sex Ratio and Gender Equality in Literacy. Sex ratio (index value designated as $\delta$) is one of the important measures of the Social Status of Women. Gender Equality in Literacy is determined in two steps. The first step is finding out the Gender Gap in Literacy for each district. Gender Gap in Literacy is arrived at as the difference between the respective literacy rates applicable to males and females in each district. And, an index (which is designated as $\phi$) is framed as in the case of any other indicator used here (a discussion on the framing of each index of the indicator follows). It also follows that both the variables Gender Gap in Literacy and Gender Equality in Literacy are related such that a narrower Gender Gap in Literacy signifies a better status of Gender Equality in Literacy.

In a society where there is no gender inequality in literacy, or in other words, the male literacy rate and female literacy rate are equal, the Index of Gender Gap in Literacy will be zero and Gender Equality in Literacy will necessarily be equal to the ideal normalized index value of 1, therefore, any degree of Gender Equality in Literacy can be measured as the deviation of the index value of Gender Gap in Literacy from 1 (i.e. $1-\delta$). And, a higher the index value is regarded as indicative of better status in the domain of Gender Equality in Literacy. Gender Gap in Literacy is resorted to capture the social status of women in the society because there are arguments that gender inequality in education negatively affects economic growth (Barro and Lee, 1994; Hill and King, 1993& 1995). In the Indian context, Kurien (2000) argues that the gender difference in literacy captures the status of women in a society better than any other indicator.

1.8.1.4 Health status of women

Better health status can be regarded as indicative of the existence of the superior quality human capital in a society. Better health status augments growth, and the health status of women testifies to the level of development in a society, for there is ample evidence for the fact that growth and health are correlated. Fogel (1994), Barro and Sala (1995) and Barro (1996) also find a positive relationship between economic growth and health. Thus, it is justifiable that the level of health improvement facilities in a society can be viewed as indicative of the level of development attained.

Many indicators have been engaged in measuring the health status in various studies both regional and cross country based. Morris (1979) and Morris and Mc Alpin (1982) have employed a measure called the Physical Quality of Life Index (PQLI) computed on the
basis of infant mortality, life expectancy at age one and basic literacy that can help policy makers determine the extent to which their policies actually do benefit greater or smaller proportions of their societies. And, their calculations show that there is a very high degree of correlation between the per capita income and components of PQLI across nations. Levine and Renelt (1992) and Sala-I-Martin (1997 & 1997) find that initial life expectancy is a positive and significant predictor of economic growth. This makes initial health of a person as represented by infant mortality, life expectancy at age one and basic literacy (Morris, 1979; Morris & Mc Alpin, 1982; Renelt, 1992; Sala-I-Martin, 1997 & 1997) one of the most robust predictors of subsequent economic growth. MMR (Maternal Mortality Rate) and IMR (Infant Mortality Rate) are among the eleven health indicators recognized by Countdown to 2015 and Health Matrices Network (2011). Duflo (2012) employs maternal mortality ratio, sex ratio at birth and life expectancy, besides certain other variables like enrollment rates of boys and girls at the primary and secondary levels etc.

Among the indicators selected for the current purpose are those for measuring the general health standard of women and the one for scaling the facilities for access of the health services. MMR and IMR are employed to measure the general health standard of women. Index values of MMR and IMR (index values designated as $\eta$ and $\kappa$ respectively) actually show the level of deprivation in health of a district. In other words, the values of $\eta$ and $\kappa$ shows the distance each district has to travel in the space of health to reach the ideal health status of zero MMR and IMR. If, on the other hand, $\eta$ and $\kappa$ are deducted from 1, it also shows the distance each district has already travelled to attain the ideal health status characterized by zero MMR and zero IMR. In other words 1- $\eta$ and 1 - $\kappa$ depict the present Health Status of Women as indicated by MMR and IMR. Another factor to be taken into account in measuring the Health Status is the ability to use the health services when they are needed, which in turn, is associated with the factors relating to both service provision and service usage, i.e., the access (Xu, Saksena & Evans, 2010). Access to health facilities is usually proxied by the number of medical and paramedical personnel, the number of medical institutions per a definite number of population (Bhandari, 2006; Abdallah & Burnham, 2008). In the present case, the number of beds (the index value designated as $\mu$) in various types of health care establishments-Allopathic, Ayurveda, Homeopathic, and Unani systems - in both government and private sectors in each district is taken as the indicator of the access of medical facilities after considering the availability and suitability of data.
1.8.1.5 Computation of the Women Development Index (WDI)

The *WDI* is a composite representation of the level of development attained in each district by the end of the year 2010 - 11. The data relating to various indicators belong to the year 2010 – 11. The Women Development Index (WDI) is framed in line with the Human Development Index described in the HDRs. Here the Women Development Index (WDI) is computed in three steps. In the first step, an index for each individual indicator for all the 14 districts of Kerala is computed by using the formula described in the following section.

**Individual Indices of Indicators of each dimension of Composite Index of Development of βth District are:**

\[
I_{αβ} = \frac{A_{αβ} - m_α}{M_α - m_α}, \quad α \in \{δ, η, κ, μ, π, ν\} \text{ and } \]

\[
A_{αβ} = \text{actual value of Indicator } α \text{ of } β\text{th district}
\]

\[
M_α = \text{Maximum value of Indicator } α \text{ of districts and}
\]

\[
m_α = \text{minimum value of Indicator } α \text{ of districts}
\]

In the second step, each dimension is treated separately before the final development index is arrived. The dimensions of Standard of Living and Banking Penetration are measured by single indicators; whereas the dimension of the Social Status of Women and the Health Status of Women involve more than one indicator. For the dimensions involving one indicator only, no further treatment is given to the individual indices of indicators. For the dimensions involving more than one indicator, the dimensional indices are computed as the weighted average of the individual indices of indicators. The weights are assigned as follows: In the case of the dimension of the Social Status of Women (the dimensional index designated as λ), each of the indicators Sex ratio and Gender Gap in Literacy is assigned weights in the ratio of 1:2 respectively. The weights are assigned according to the logic that once equality or near equality in number of males and females in a society is attained, further achievement in gender equality is to be assessed from the difference in the opportunities for further development. The later achievements in gender equality, which will be more pronounced on the Social Status of Women is reflected nowhere better than in the educational status of both sexes as represented by the gap in literacy level. And, it is assigned twice the weight as that of sex ratio. For computing the Health Status of Women
(the dimensional index designated as $\mathcal{D}$), the indicators such as the number of beds in hospitals belonging to various systems of medicines like Allopathy, Homeopathy, Ayurveda and Unani in each district, and district wise MMR and IMR are assigned weights in the ratio of 4:2:1 respectively. The number of beds represents the infrastructural facilities while the other two indicators represent the level of health standard already attained; and the weights are assigned on the logic that infrastructural facilities signifies highest degree of importance while, of the other two indicators, MMR is twice as important as IMR.

Normalizing the weights such that

$$\sum_{i=1}^{n} w_i = 1,$$

the sub dimensional indices for the $\beta^{th}$ district are

$$\lambda_\beta = \sum_{i=1}^{n} w_i \theta_i, \quad \theta_i \in \{I_{\mathcal{D}_\beta}, 1 - I_{\mathcal{D}_\beta}\}$$

$$\mathcal{G}_\beta = \sum_{i=1}^{n} w_i \tau_i, \quad \tau_i \in \{1 - I_{\eta\beta}, 1 - I_{\mu\beta}, I_{\nu\beta}\}$$

As the third step, the Composite Index of Development (DI) is arrived as the simple average of all the four sub dimensional indices as:

$$\text{WDI of } \beta^{th} \text{ District} = \left[ \frac{1}{4} \sum_{i=1}^{4} e_i \right], \quad e_i \in \{\lambda_\beta, \mathcal{G}_\beta, I_{\mathcal{D}_\beta}, I_{\nu\beta}\}$$

District wise details of the sub dimensional indices involved in the computation of the WDI and the distribution of districts according to WDI are shown in Table 1.4. The interpretation of the WDI is based on the simple logic that the higher the values of WDI, the higher the Development status of the women of that district. Ranked according to the WDI, the districts of the State show considerable variations. It can be seen that the districts of the Northern Region are largely far behind the districts of the other regions, and the whole region is made up of the least ranking districts. The only exception is Kannoor, which by virtue of its better health status and sex ratio, enjoys a higher status than that of Thrissur in the Central Region. If viewed from the point of view of development, Palakkad is the least developed district not only in the northern region, but in the whole of the State.
The number respondents selected for the interview does not bear any proportionate relation to the total population of SHGs having IGAs, for the population of SHGs having IGAs is not properly defined across the districts of the State. In order to tackle this issue, primary data are collected from those members of SHGs who came for the meeting of the respondents arranged at convenient places of respective local bodies.

### 1.9 Limitations of the study
Since the data collection was accomplished in a meeting of the Respondents belonging to the area under a local body chances are that the answers to the questions of one individual may have been influenced by others, especially by the responses of the companion belonging to the same SHG. This possible bias has not been controlled.

Selection of comparison group has been done after collecting primary data. In other words, the comparison group has been generated after evaluating all the respondents on the basis of the Self Selection Index (SSI) solely framed for the purpose of the present study. Those who are found to be self selected into the Programme are taken to be the comparison group. When this method is adopted, there is an underlying assumption that both the groups are alike in all respects except for the variables entering into the formulation of Self Selection Index (SSI).

1.10 Scheme of the Report

The report of the study is presented in seven chapters.

1.10.1 First chapter is for an introduction to the concept of microfinance, SHG Bank Linkage Programme, statement of the problem, objectives, methodology, sample design and limitations of the study.

1.10.2 Second chapter is for a detailed review of literature and the conceptual framework of the study.

1.10.3 Third chapter deals with the progress of the SBLP throughout the Regions and States in India.

1.10.4 Fourth chapter describes the extent to which the promised goal of microfinance–Financial Inclusion-has been achieved through the SBLP.

1.10.5 Fifth chapter details the socio economic characteristics of the respondents of the survey.

1.10.6 Sixth chapter is to develop a framework for assessing the extent of Self Selection among the participants of the SBLP and also to assess the extent of Self Selection among the participants of the SBLP.

1.10.7 Seventh chapter details whether there is difference between empowerment levels of Self Selected participants and Not Self Selected participants into the SBLP. It also details whether there are differences among the participants as regards the levels of empowerment
among the participants of the SBLP from the different macro circumstances as prevailing in the three sample districts such as Trivandrum, Kottayam and Palakkad.

1.10.8 A summary of findings, conclusions, suggestions and recommendations emerging from the study are given in the eighth chapter.
References


