Women Financing and Household Economics

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Abstract

This study has uniquely established that financing women though Self Help Groups has a significant role in empowering women, which is a smart economics indeed in achieving the objective of economic development of the weaker sections. The findings of this study establish using the statistical technique and robust sample size that women financing through groups has significant impacts on the food security as well as non-food expenses of the poor families. The study has evidenced significant outreach of impact of women financing in terms of physical as well as qualitative factors on the socially weaker sections of the society such as Women, Scheduled Castes /Scheduled Tribes and Other Backward Classes category of the poor.

Keywords: Economic Development, Institutions and Growth, Microfinance, Banking, Poverty, Cross-sectional analysis, Consumption, Saving

JEL Classification: G21, C21, C31, E21, I38, O43, O47, N35

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1. INTRODUCTION

The popular quote of the world’s greatest scientist ever Albert Einstein - “The significant problems we face cannot be solved by the same level of thinking that created them” might not stand with microfinance movement in most of the developing countries. The approach to women empowerment in the South Asian context is regarded as a process in which women challenge the existing norms and culture in order to improve the well-being of their families and achieve their economic improvement of their household. In the last two decades, both governmental and nongovernmental organizations in developing countries have zealously promoted microfinance programs offering financial services to low income households, specifically targeting women. This was based on the promise that women in poor households are more likely to be credit constrained, and hence less able to undertake income-earning activities. Access to credit has received even greater attention in the context of poverty reduction and women’s empowerment objectives. With the aim to meet the Millennium Development Goals and microfinance programs’ role in supporting it, there has been an increasing expectation on their impact on women empowerment. However, only a few studies have successfully investigated this impact in a rigorous manner (Pitt et. al, 2006).

Several researchers have noticed a positive effect of finance on poverty reduction (Beck, Demirguc-Kunt and Levine (2007). However, some of the studies have been sceptical about the impact of finance on women. Drawing evidence from a randomized evaluation, Banerjee et al.(2010) find no significant effect of microcredit access on women’s decision-making. Examining the impact of NGO-led institutions, Hunt and Kasynathan (2001) find that if credit programs are to be successful in women empowerment, there must be a greater emphasis on strategies that transform gender relations. In this background this study endeavours to find answers for the following research questions: (i) Whether participation in self help groups has a positive significant economic impact on the food security of the weaker
sections? and (ii) Whether participation in self help groups simultaneously impacts positively on the non-food consumption (standard of living) of the weaker sections? While finding answers to these questions, this study covers weaker sections of the society which by and large include; Women, Other Backward Castes (OBCs) and Scheduled Castes and Scheduled Tribes (SC/ST). The remainder of the paper is organized as follows. While Section 2 presents the theoretical framework with adequate literature review, Section 3 describes the hypothesis, data and econometric approach of the analysis. Section 4 presents the findings of the impact evaluation empirical inquiry and Section 4 offers the concluding remarks and policy implications of the study.

2. THEORETICAL FRAMEWORK

Access to finance indeed empowers people, provides them the opportunity to have an account, to save and invest, to insure their homes or to take a loan and in many cases to liberate from the clutches of poverty. Microfinance offers potential advantages to all stakeholders viz., the Poor, the NGOs and the banks. The linkage between banks and SHGs with the NGOs as facilitators / financial intermediaries as a mechanism for channeling credit to the poor on a sustainable basis, offers a number of potential advantages. As a methodology, Self-Help Group (SHG) facilitates the service provider (government, development agencies) to reach the poor communities on a wider scale and at lower costs.

The microfinance industry is going through a period of rapid scaling up. Especially during the past ten years, these programmes have been in vogue in several developing economies. Amongst the well known ones are; the Grameen Bank in Bangladesh, Bank Rakyat in Indonesia and Banco Sol in Bolivia. Particularly, the Grameen Bank system of Mohammad Yunus (a system of group lending started in 1976 in Bangladesh), has been widely replicated
in other developing countries. In an effort to improve the effectiveness of efforts at reducing poverty, programs that fall under the broad rubric of “community driven development” (CDD) have recently seen tremendous expansion. The amount of World Bank loans under this category alone is estimated to have increased from US$ 0.3 billion per year in the late 1990s to some US$ 7 billion annually in 2006 (Mansuri and Rao 2007).

Financing poor women through microcredit has become central to poverty reduction strategies across the developing world. Underpinning this trend is an implicit model of the empowered woman who invests money in a successful enterprise, uses the income to enhance the nutritional status of her family, educates her children and begins to participate in major family decisions (Ackerly, 1995). This ideological construct has been so forceful that many of the microcredit institutions lend to female clients only and nearly 85% of all clients worldwide are women (Daley-Harris, 2007). The relationship between microcredit and empowerment, however, is intensely debated in the literature (Kabeer, 2001; Garikipati, 2008).

Women’s credit needs are quite different than that of men and required to be provided in a different structural approach (de Mel et al. 2009). Though Holvoet (2005) observes that credit alone is not enough to produce an impact on women’s decision-making pattern and to be beneficial it needs to be channeled through groups and combined with training. Garikipati (2008) compares SHG-clients with non-clients from Andhra Pradesh in India and states that though access to credit alone does not matter for empowerment, it is essentially the way in which credit is used that counts.
Recent literature has found a positive correlation between access to finance, economic growth and poverty alleviation. Jane Humphries & Carmen Sarasúa (2012) observe that there can be no real understanding of how and when economic growth happens without clarity about the extent of women’s participation and their contribution to national incomes. However, much of the debate on gender and finance has been concerned with access to loan finance and with the role of the banks in creating or perpetuating gender-based differences in access to finance (Coleman, 2000; Verhuel & Thurik, 2001). Several studies report discrimination in access to finance for women and it seems to be related to structural factors rather than gender \textit{per se} (Ahl, 2004; Amatucci & Sohl 2004). Giving loans exclusively to women also helps empower women in developing societies, typically places where women do not enjoy the same benefits as men. Involvement in credit programs does empower women by increasing their ability to control family finances and assets and become engaged in the community. (Hashemi et al., 1996)

There is greater consensus however, on the role of microfinance in reducing vulnerability. The provision of microfinance has been found to strengthen crisis-coping mechanisms, diversify income-earning sources, build assets and improve the status of women (Hashemi et al [1996]; Montgomery et al [1996]; Morduch [1998]). One of the first comparative studies addressing effects of microfinance using quasi-experiments was Hulme and Mosley’s (1996) \textit{Finance against Poverty}, bringing a new critical voice to the debate by showing the limitations of microfinance in bringing about poverty alleviation. Some of the studies indicate that it is the better off poor rather than the starkly poor who stand to benefit most. Evidence for this is given in e.g. Hulme and Mosley (1996) and Copestake et al. (2005). Khandker (2005), using the panel data at both participant and household levels in Bangladesh, confirm that microfinance has a sustainable impact in reducing poverty among the participants.
especially for women participants and a positive spill over effect at village level. Khandker finds that the extremely poor benefit more from microfinance than the moderately poor.

The existing literature on SHG–bank linkage programme in India reveals an overall picture of great promise on the socioeconomic well being of the members’ households. Ahlin and Jiang, (2008) arrives at a similar opinion in their study. They find that long-run development from micro-credit relies on ‘saver’ graduation (due to gradual accumulation of average returns in self-employment). They conclude that for micro-credit to enhance broad-based development, it must depend on simultaneous facilitation of micro-saving. Moyle, Dollard and Biswas (2006) and EDA Rural System and APMAS, (2006) discussed mainly various socio-economic parameters of SHG members related to the situation during pre-SHG and post-SHG periods. Further, Khandker (2005) applying panel methods (using a 1999 resurvey) concludes that microcredit benefits the ‘very poor’ even more than the ‘moderately poor’. According to a study by SIDBI (2008), while 76 percent of the poor were able to increase their income through MFI assistance, 66 per cent improved their food consumption and 77 per cent could provide better educational facilities to their children.

The impact on poverty reduction was reviewed by Morduch and Haley (2002) in India, and Pitt, M., S. R. Khandker, and J. Cartwright (2006) in Bangladesh have found a greater impact on poverty for low-income households. Richard L. Meyer (2001) observes that microfinance can contribute to poverty alleviation and food security. It does this through supplying loans, savings and other financial services that enhance investment, reduce the cost of self-insurance, and contribute to consumption smoothing. India has expanded microfinance, but it has not yet developed a strong system capable of serving massive numbers of poor in a sustainable fashion. Undoubtedly, the legacy of directed credit with its top-down approach to
lending and the prevalence of highly subsidized state and national poverty projects and programmes retard the development of true market-oriented rural microfinance. The policy of supporting SHG linkages with banks has merit in a country with a large bank network, but it should not be the only model encouraged. Additional efforts are needed to create and nurture competitive MFIs willing to experiment with other models.

Participation in micro enterprise services leads to an increase in the level of household income (Martha Alter Chen and Donald Snodgrass, 1999). According to their study, the average income of borrower households was higher (by 39%) than the average for non-member households. Further, they have observed that participation in micro enterprise services leads to an increase in expenditures on food, especially among the very poor. A very recent study in India by NCEAR (2008), found 25.3 percentage points net reduction in poverty of the households, who were living below the poverty line, a significant drop from 58.3 per cent at the base level to 33 per cent in 2006. The study found that SHG-Bank Linkage programme has influenced the consumption pattern of member households. The average annual growth rate of consumption expenditure on food items registered an increase of 5.1 per cent and with 5.4 per cent was even higher for non-food items. The average annual growth rate of expenditure on food and nonfood was thus higher than 5 per cent respectively at the All-India level (six States).

The growth in the microfinance sector has prompted a large number of academic empirical studies examining different aspects of the industry. These studies have implications for the design of microfinance programmes as well as broader issues relating to the structure and regulation of the sector. Microfinance has made incredible progress in India over a period of years. It has become popular as well as familiar to the poor in view of the varied benefits
reaped/receivable from microfinance services by the poor. Self Help Groups (SHGs) have turned out to be the familiar means of development process converging all development programmes. SHG-Bank Linkage Programme is considered as the largest microfinance programme in the world in terms of its outreach and hence many other countries are eager to replicate this model. According to Status of Microfinance in India - 2008-09 published by National Bank for Agriculture and Rural Development [NABARD], there are more than 6.1 million saving-linked SHGs as on 31 March 2009 and of them more than 4.2 million are credit-linked SHGs and thus, programme has covered about 86 million poor households.

Even though few studies have been conducted to quantify the impact of Self Help Groups in general, there has not been a single study reported which has focused exclusively on the impact of SHGs on the weaker sections of the society; Women, Other Backward Castes(OBCs) and Scheduled Castes and Scheduled Tribes[SC/ST]. In this context, it is desirable to generate information and analyse to what extent these Self Help Groups have been able to create sustainable impact on the economic lives of the weaker sections of the society mainly in terms of their annual income, food consumption and standard of living.

It is generally felt that there have been perceptible changes in the living conditions of the rural poor mainly on economic side and relatively on social side owing to the role of Self Help Groups. In addition, it is widely believed that SHGs have had a positive impact on the poverty levels and standards of living of the poor and more particularly on the economic empowerment of women. It is with this perceptional background that this detailed study has been undertaken to find out the economic impact of the Self-Help Groups on food security and non-food consumption of the weaker sections of the society.
2. Data and Methodology

This impact study intends to explore the following hypothesis:

Hypothesis: Self Help Group approach combined with other supportive interventions (like non-financial services, social mobilization, and other forms of social protection) has significant and greater impacts on the weaker sections of the society mainly such as; Women, Other Backward Castes (OBCs) and Scheduled Castes and Scheduled Tribes in India which constitute significant population than other (general) sections.

Accordingly, the study area is chosen as detailed here below. In India, southern region has dominated the SHG-bank linkage programme since the launch of the Pilot project to link SHGs with banks. In terms of cumulative number of SHGs linked with banks, Karnataka has been among the top three, the other two being Tamil Nadu and Andhra Pradesh. In Karnataka state, Shimoga has led the way in the formation and linkage of SHGs with banks. The district provides an ideal region to undertake the study in view of the diverse culture, climate encompassing the maidan region (temperate plain region) and malnad region (hilly forest region) consisting of Thirthahalli, Sagara and Hosanagara blocks endowed with majestic Sahyadri hill ranges and thick forest cover.

In terms of SHGs linked with bank credit among the districts in the state of Karnataka, *Shimoga district with linkage of 5554 SHGs stands 13th with a share of 9%. As at March 2008 (the reference period), in Shimoga district there were in all 4621 SHGs of which 2755 SHGs were linked with bank loans. Some of the salient features of the district which prompted us to select this district as study area are; Shimoga district has the distinction of having 2755 SHGs linked to the banks under linkage programme with cumulative bank loan disbursed upto INR 839.1 millions [$18.24 millions] by March 2008. The district provides an*
ideal region to undertake the study in view of the diverse culture, climate, and people. The district has good mix of quite old and new SHGs ranging from 12 years to 1 year old. About 15 to 20 Non-Government Organisations (NGO) are actively engaged in SHG formation and linkage programme apart from the active participation by local bank branches and the State Government’s women empowerment departments. Therefore, Shimoga district was selected as a study region since all the indicators are very well stabilized.

The reference period is designed as detailed here below. The Self Help Group promotion movement has gathered momentum since 2000 and there has been phenomenal rise in the number of SHGs due to the active support of banks, NGOs, Government Organisations and Non Government Organisations. For the purpose of study, it is decided to consider a ten-year period upto 2010 as a suitable period for the study. Accordingly, March 2010 has been reckoned as the reference period.

To investigate the proposed objectives and verify the hypothesis at field level, a sample survey was undertaken following multi-stage purposive random sampling design in selection of SHGs in the study area. Factual opinions were collected from the participating functionaries of the programme such as Banks, Government Departments, NGOs, and the common public. A combination of both the analytical and descriptive design was employed for the present study. In the following section, some of the approaches employed towards data collection aimed at maximizing the accuracy of the study are elaborated.

A planned approach has been employed for data collection so that the facts that are near to reality and free from aberrations are elicited for impact evaluation. The data were obtained from primary as well as secondary sources. The primary data were collected by conducting a
The secondary data were collected from Governmental/Non-Governmental Organizations’ publications. The primary data were obtained by administering a pre-tested schedule designed for the study. Some of the methods employed for the purpose of data collection are; Observation method, Questionnaire method, Mailed Questionnaire method and Telephone Interview.

For quantification of impacts, some of the indicators employed for impact assessment in the subject study include the following factors at the individual level in case of member of SHG; Per Family Food Expenses (PFF Expenses) - before and after SHG intervention and Per Family Non Food Expenses (PFNF Expenses) - before and after SHG intervention. Further, some of the indicators employed for quantification of impacts in the subject study include the following factors at the SHG activity / programme level in the district: (i) Participation of Women and Men and (ii) Participation of Social Classes –. The selection of indicators is based on experience of the researcher in the field of microfinance, standard approaches in impact evaluation, available information, and to a degree, common sense. The selected indicators are considered in view of their following characteristics: validity, reliability, relevance, technically feasible, usability, sensitivity, timeliness, cost-effectiveness, and ethical. Questionnaire designed with 29 parameters enabled to quantify the impacts through the questionnaire method as it is primary data originated directly from the sample groups and their members during the field visits.

Quantification of the impacts for before and after impact situations of any intervention is normally attempted using the most popular statistical tool i.e. Paired-Sample T-Test. The Paired-Samples T-Test procedure is used to test the hypothesis of no difference between two variables. Accordingly, Paired-Samples T-Test has been used here to determine whether there
is statistically significant difference between the food and non-food expenses of the members of the SHGs: before and after the intervention of SHG approach.

For the subject study, all the Self Help Groups in Shimoga district constitute the relevant population. *Stratified Random Sampling* technique has been selected keeping in view purpose of the study, measurability, degree of precision, information about population, the nature of the population, geographical area of study, size of population, financial resources, time limitations and economy. In this method, in view of the diverse nature of data, the population is sub-divided into homogeneous groups or strata, and from each stratum, random sample is drawn. Stratification of SHGs in the district has been made on the following lines; Block\textsuperscript{1} wise, Gender wise, Category wise, Age wise, Size wise, Activity wise, Performance wise, Rate of Interest wise, and Repayment wise. Multi-staging of the population of SHGs is made into block levels and then into different parameters of significance. Size of the sample is adequate and representative in order to provide sufficiently high precision.

In order to understand the trends of organisation of groups based on gender the sample groups are classified as men (exclusive men groups), women (exclusive women groups) and mixed (meaning both men and women are members of these groups) (figure-1). Further, to understand the trend based on the social classes the groups are broadly classified as Scheduled Castes\textsuperscript{2}/Scheduled Tribes\textsuperscript{3} (SC/ST), Other Backward Classes\textsuperscript{4} (OBC) and General

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\textsuperscript{1} The study area has 7 blocks. Blocks are the geographic units within a district in Indian states created for administrative convenience based on geography, history, population and other related considerations.

\textsuperscript{2} Scheduled Castes (SC) in India are the classes of sections of society that are very backward particularly socially and need efforts by the government to nurture and emancipate them in order to achieve social equity and economic growth. These classes of the society are notified by the Union (federal) Government of India.

\textsuperscript{3} Scheduled Tribes (ST) in India are the most deprived sections of the society that are predominantly found in the forests and in the peripheries of the forest lands that are socially as well as economically very poor. These classes of the society are notified by the Union (federal) Government of India for the purpose of providing governmental support and ease of identification for different purposes of administration.
Master Sample frame (Table-1) has been finalized after considering the above mentioned dimensions of SHGs and keeping in mind the various criteria such as the purpose, measurability, degree of precision, size of the population, time limitations and the nature of the SHGs. Table-2 explains the number of groups accounted in the sample frame according to the social classes to study the impact on weaker sections of the society in India.

The study has certain limitations of academic interest though not significant in terms of practicality. Measuring the impact of microfinance institutions and policies on the dimensions of poverty and related aspects precisely is technically intricate and expensive (De Aghion & Morduch, 2005, Khandker, 1998 and Morduch, 1998). This research has limitations that are ought to be taken into consideration. First, similar to comparable previous studies about the impact evaluation of SHGs, it is very difficult to construct a statistically representative sample given the large size of the population (No. of SHGs in the area) and its geographic extension. However, in order to mitigate this limitation to an extent, Stratified Random Sampling is employed involving a sample size of 555 SHGs, which accounts for about 12% of the population of the sample. Second, this study countenances the difficulties similar to previous researches regarding the exactness or accuracy of the data that are not systematically collected by the implementing agencies. Third, since the study was conducted in a relatively large scale in the form of a survey in order to ensure higher coverage, representativeness, ease of data standardization and segregation, cope with the problem of attribution, manage with the problem of non-project causes, capture qualitative impacts as well as causal processes, control group method was not considered. Further, as is well known there are chances of several biases in the case of adoption control group method like; sample selection bias, misspecification of underlying relationships, motivational problems for the control

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4 Other Backward Classes (OBC) in India are backward classes of the society which are relatively backward when compared to the general classes and need attention of the government even though they are not so socially deprived when compared to SCs and STs. OBCs are also notified by the Union Government of India.
group, The major disadvantage with the control group method has been its simplicity or the crudeness. Even though there is the availability of some antidotes for such disadvantages of the control group method, it was felt to go ahead with the decided methodology in the larger interests of the accuracy of the study as well as the aspects of cost and time concerns. However, the attributions of the impact by the results of the study are opined to have not been affected with the choice of the methodology.

Fourth, this study believes that the obvious factors of economic impact on rural development such as the role of Government, the effect of inflation and resource endowment in the study area are limited or the same when compared to the pre-SHG situation and the post-SHG situation. This assumption is prompted by the most popular understanding that SHGs have had a lasting impact on the economic living of the poor in the area and dominate the other variables of analysis for economic development.

3. Results

The key to the success of a development programme is its effectiveness in bringing about the desired change in the lives and livelihoods of the participants or the target groups it is intended to benefit. Impact Evaluation is helpful in ascertaining the effectiveness of the development programme. Impact Evaluation can be defined as a systematic analysis of the lasting changes – positive or negative, intended or not – in people’s lives brought about by an action or a series of actions. For Impact Evaluation, the study has considered factors in tune with the objectives like; (1) Impact on Food Security and (2) Impact on Non-Food Expenses.
3.1 Impact on Food Security

One of the important dimensions of development is provision of adequate provision of food for the needy poor. Provision of food indicates the adequate supply of food to the needy. It is thus one of the parameters of indicators of standard of living. In this background, it is attempted here below to analyse the trends of Per Family Food Expenses of the members of the SHGs.

The null hypothesis \( (H_0) \): There is no significant difference between the two variables Food Expenses Before (FEB) the formation of SHGs and Food Expenses After (FEA) the SHG impact.

The Alternative Hypothesis \( (H_a) \): There is a significant difference between the two variables Food Expenses Before (FEB) the formation of SHGs and Food Expenses After (FEA) the SHG impact.

Paired Samples Statistics for Analysis of Per Family Food Expenses of all 555 Sample Groups

<table>
<thead>
<tr>
<th>Pair</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FEA</td>
<td>8215.74</td>
<td>555</td>
<td>3034.317</td>
</tr>
<tr>
<td></td>
<td>FEB</td>
<td>4849.05</td>
<td>555</td>
<td>1448.861</td>
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Paired Samples Test

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<tr>
<th>Pair</th>
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<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
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<tbody>
<tr>
<td>1</td>
<td>FEA - FEB</td>
<td>2052.623</td>
<td>38.640</td>
<td>554</td>
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</table>

The result of the analysis indicates that the null hypothesis is rejected at 1% significance level and hence the alternative hypothesis that there is a statistically significant difference between the mean values of the two variables FEB and FEA is accepted. Results of the Analysis of Per Family Food Expenses of Different Sample Categories are presented in table-3. This result is further confirmed by the truth that there is an increase in the Food Expenses of the members of the SHGs after the impact of SHG as is observed during the field visits. Also, it is endorsed by the views of the members of SHGs contacted during the visits and also of the
microfinance experts such as NGOs and bankers involved in the SHG activity. Further, this outcome of the analysis generalizes our observation that there is a significant improvement in the income levels of the members of the SHGs in Shimoga district. The mean value of the per family food expenses has increased from INR4849 [$105.41] in pre-SHG situation to INR 8216 [$178.60] after SHG impact registering an improvement to the extent of 69.41%. It is desirable to mention here that AIMS study by Martha Alter Chen and Donald Snodgrass (1999), too found that average expenditure on food in borrower households was 21% higher than in control households. Similarly, NCEAR (2008) study also found 5.1% increase in food expenditure.

3.2 Impact on Non-food Expenses (Standard of Living)

In addition to the provision of food for the poor, it also important that the poor need to spend for other Non-Food Expenses in order to make a reasonable Standard of Living. The Non-Food Expenses largely account for expenses towards to health, education, day-to-day expenses of home making and quality of life etc. It is in this background that the analysis of the impact of SHGs on the Non-Food Expenses of the members of the SHGs is attempted here below.

The null hypothesis ($H_0$): There is no significant difference between the two variables Non Food Expenses Before (NFEB) the formation of SHGs and Non Food Expenses After (NFEA) the SHG impact.

The Alternative Hypothesis ($H_a$): There is a significant difference between the two variables Non Food Expenses Before (NFEB) the formation of SHGs and Non Food Expenses After (NFEA) the SHG impact.
Paired Samples Statistics for Analysis of Per Family Non-Food Expenses of all 555 Sample Groups

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
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<tr>
<td>Pair 1</td>
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<td>6228.26</td>
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<td>3573.426</td>
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<td>NFEB</td>
<td>3595.82</td>
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Paired Samples Test

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<tr>
<td>Pair 1</td>
<td>NFEA - NFEB</td>
<td>2983.709</td>
<td>20.785</td>
<td>554</td>
</tr>
</tbody>
</table>

The result of the analysis indicates that the null hypothesis is rejected at 1% significance level and hence the alternative hypothesis that there is a statistically significant difference between the mean values of the two variables NFEB and NFEA is accepted. Results of the Analysis of Per Family Non-Food Expenses of Sample Categories are captured in table-4.

Analysis of Impact with reference to Social Classes

This result is further vindicated by the fact that there is a considerable increase in the non-food expenses of the members of the SHGs after the impact of SHG as is observed during the field visits. Also, the views expressed by the members of SHGs contacted during the visits and the experts in microfinance such as NGOs and bankers involved in the SHG activity confirm the result. The mean value of the per family non-food expenses has increased from INR 3596 [$ 78.17] in pre-SHG situation to INR 6228 [$ 135.39] after SHG impact, thus registering an improvement to the extent of 73.24%. Similarly, NCEAR (2008) study also found 5.1% increase in food expenditure.

Outreach of Impact of SHGs on Weaker Sections

One of the important dimensions of a successful development intervention is the Outreach of its impact. The typical beneficiaries of SHG are low-income persons who are deprived of the access to formal financial institutions. Table-5 establishes the economic impact of SHGs on the weaker sections of the society wherein OBC groups have experienced substantial
economic improvement in terms of both food security and standard of living (figure-3). Thus, from the results of the analysis presented in the above tables, it can be opined that the Weaker Sections have considerably benefited from the SHG activity as the above said economic indicators explain meaningful improvements in their economic living.

4. Conclusion

Empirical analysis has revealed that microfinance particularly in the form of Self Help Group approach is most suited for sustainable rural economic development through the participation of the stakeholders at all levels. SHGs reduce poverty and vulnerability of the poor by increasing capital / asset formation at the household level, improving household, and enterprise incomes, enhancing the capacity of individuals and households to manage risk, increasing enterprise activity within households, expanding employment opportunities for the poor in non-farm enterprises, empowering women, and improving the accessibility of other financial services at the community level.

The impact on per family food expenses due to SHGs has been to the extent of 68% in case General groups, 65% in case of SC/ST groups and 75% among the OBC groups. The impact on per family non-food expenses due to SHGs has been to the extent of 72% in case General groups, 73% in case of SC /ST groups and 74% among the OBC groups.

There is significant outreach of impact of SHGs in terms of physical as well as qualitative factors on the socially weaker sections of the society such as Women, Scheduled Castes /Scheduled Tribes and Other Backward Classes category of the poor. Attribution of the impact has been ascribed to the SHG-Bank linkage programme whereby the participation of the poor in the said programme by becoming the member of the SHG and availing micro credit as well as other related microfinance services has resulted in noticeable improvements in the food
security as well as the non-food expenditure. The study observes that by strengthening women’s participation in self help groups particularly of those women belonging to socially deprived classes impacts significantly in providing full and and productive employment for women. It not only empowers them but also opens up more business opportunities for the private sector, stronger communities for society, and greater sustainable economic growth for countries. Thus, empowering woman a good household economics indeed!

References
EDA Rural Systems and APMAS (2006). *The Light and Shades of SHGs in India*, for CRS, USAID, CARE and GTZ/NABARD, CARE India


Martha Alter Chen and Donald Snodgrass (1999). An Assessment of the Impact of Sewa Bank in India: Baseline Findings


Table-1: Master Sample frame

<table>
<thead>
<tr>
<th>Group size</th>
<th>Bhadravathi</th>
<th>Hosanagara</th>
<th>Sagara</th>
<th>Shikaripura</th>
<th>Shimoga</th>
<th>Soraba</th>
<th>Thirthahalli</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEN</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>SC/ST</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>OBC</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GEN</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>WMN</td>
<td>80</td>
<td>16</td>
<td>35</td>
<td>7</td>
<td>52</td>
<td>12</td>
<td>72</td>
<td>14</td>
</tr>
<tr>
<td>SC/ST</td>
<td>18</td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>11</td>
<td>2</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>OBC</td>
<td>23</td>
<td>5</td>
<td>10</td>
<td>2</td>
<td>15</td>
<td>3</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>GEN</td>
<td>39</td>
<td>8</td>
<td>17</td>
<td>4</td>
<td>26</td>
<td>7</td>
<td>36</td>
<td>7</td>
</tr>
<tr>
<td>MXD</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>sub total</td>
<td>85</td>
<td>20</td>
<td>37</td>
<td>8</td>
<td>56</td>
<td>14</td>
<td>77</td>
<td>18</td>
</tr>
<tr>
<td>G-total</td>
<td>105</td>
<td>45</td>
<td>70</td>
<td>95</td>
<td>120</td>
<td>70</td>
<td>50</td>
<td>555</td>
</tr>
</tbody>
</table>

Table-2: Classification of Sample Groups according to Master Sample Frame

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>According to Social Classes</th>
<th>No. of Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SC / ST Groups</td>
<td>129 Groups</td>
</tr>
<tr>
<td>2</td>
<td>OBC Groups</td>
<td>157 Groups</td>
</tr>
<tr>
<td>3</td>
<td>General Groups</td>
<td>269 Groups</td>
</tr>
<tr>
<td>4</td>
<td>Total Groups</td>
<td>555 Groups</td>
</tr>
</tbody>
</table>

Table-3: Results of the Analysis of Per Family Food Expenses of Different Sample Categories

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Sample Category</th>
<th>Average Level Before Intervention of SHG Approach (A)</th>
<th>Average Level After Intervention of SHG Approach (B)</th>
<th>Improvement in Percentage terms B-A * 100 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SC / ST Groups (129 Groups)</td>
<td>INR 4670 [ $ 101.5217]</td>
<td>INR 7710 [ $ 167.6086]</td>
<td>65%</td>
</tr>
<tr>
<td>2</td>
<td>OBC Groups (157 Groups)</td>
<td>INR 4779 [ $ 103.8913]</td>
<td>INR 8367 [ $ 181.8913]</td>
<td>75%</td>
</tr>
<tr>
<td>3</td>
<td>General Groups (269 Groups)</td>
<td>INR 4970 [ $ 108.0434]</td>
<td>INR 8362 [ $ 181.7826]</td>
<td>68%</td>
</tr>
</tbody>
</table>

Note:
1. The figures in parenthesis in col. (A) and (B) are the $ equivalents of the INR figures in the Indian context
2. The figures presented in the table are after having been corrected for inflation based on the International Monetary Fund [IMF] data specifications available as India GDP Deflator at http://www.tradingeconomics.com/india/gdp-deflator-imf-data.html
Table-4: Results of the Analysis of Per Family Non-Food Expenses of Sample Categories

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Sample Category</th>
<th>Average Level Before Intervention of SHG Approach (A)</th>
<th>Average Level After Intervention of SHG Approach (B)</th>
<th>Improvement in Percentage terms B-A * 100 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SC / ST Groups (129 Groups)</td>
<td>INR 3469 [^{[75.4130]}]</td>
<td>INR 6008 [^{[130.6086]}]</td>
<td>73%</td>
</tr>
<tr>
<td>2</td>
<td>OBC Groups (157 Groups)</td>
<td>INR 3553 [^{[77.2391]}]</td>
<td>INR 6188 [^{[134.5217]}]</td>
<td>74%</td>
</tr>
<tr>
<td>3</td>
<td>General Groups (269 Groups)</td>
<td>INR 3685 [^{[80.1086]}]</td>
<td>INR 6352 [^{[138.0869]}]</td>
<td>72%</td>
</tr>
</tbody>
</table>

Note:
1. The figures in parenthesis in col. (A) and (B) are the $ equivalents of the INR figures in the Indian context
2. The figures presented in the table are after having been corrected for inflation based on the International Monetary Fund [IMF] data specifications available as India GDP Deflator at http://www.tradingeconomics.com/india/gdp-deflator-imf-data.html

Table-5: Economic Impact of SHGs on the Weaker Sections of the Society

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Criteria of Impact due to Intervention of SHG Approach</th>
<th>Growth / Increase Among the Sample General Groups</th>
<th>Growth / Increase Among the Sample SC/ST Groups</th>
<th>Growth / Increase among the Sample OBC Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Per Family Food Expenses</td>
<td>68%</td>
<td>65%</td>
<td>75%</td>
</tr>
<tr>
<td>2</td>
<td>Per Family Non-Food Expenses</td>
<td>72%</td>
<td>73%</td>
<td>74%</td>
</tr>
</tbody>
</table>

Figure-1: Distribution of sample SHGs based on gender composition
Figure-2: Distribution of sample SHGs based on social categories

Figure-3: Economic Impact of Self Help Groups on Food Security and Non-Food Consumption