



Article

Does Micro-Credit Empower Women through Self-Help Groups? Evidence from Punjab, Northern India

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Abstract: The goal of this paper is to examine the question—'Does income earned by members of women's self-help groups (SHGs) through micro-credit programs empower them?' The nature of the topic dictates the use of cross-sectional survey technique and comparative analysis to determine the levels of women empowerment before and after joining SHGs. A five-point Likert-type scale was developed, for which Cronbach's alpha reliability coefficient was observed to be 0.824. The survey instrument contained four sections, namely, income and expenditure; savings and borrowing amounts; financial freedom; and, capacity building and awareness levels. A sample group consisting of 114 participants of SHGs responded to the survey instrument. The *t*-test results for mean values before and after joining SHGs showed a significant change in levels of women empowerment in all the four areas. The prime reason for this empowerment was joining SHGs and using micro-credit programmes. It becomes apparent from this research that joining SHGs, and consequently, getting access to financial services increased the ability of poor women to control their savings and generate income from their occupation. They also experienced a greater decision-making role in their families and in local society, enhanced levels of self-confidence, self-efficacy and self-esteem, and heightened freedom of mobility to increase business and social activities outside home.

Keywords: micro-credit; women's empowerment; economic development; SHGs; India

1. Introduction

'To awaken people, it is the women who must be awakened. Once she is on the move, the family moves, the village moves, the nation moves'. —Pandit Jawaharlal Nehru [1]

Most of the women in rural areas of India live in an isolated environment with very limited access to even the most basic services [2]. But, they have a vital contribution in rural and agricultural domains of development, namely, crops, food security, horticulture, livestock, nutrition, fisheries, energy, and family. Though they contribute economically, they have partial access to markets, economic services, education, and healthcare [3]. In addition, they are also responsible for household chores, such as cleaning, cooking, child-care, fetching water, and so on, as these are considered traditional duties of a rural woman [4]. According to the Oxfam report, more than 40% of the 400 million women who live in rural India are involved in agriculture and associated activities. However, as women are not recognized

as farmers and do not own land, they have limited access to government schemes and credit, which, in turn, restricts their agricultural productivity' [5]. Therefore, women need to obtain the power to raise their voice, to exercise informed choice, and accomplish their potential as equal to that of men in the society. Accordingly, empowerment of women has become a subject of great concern in India [6]. 'Empowerment means moving from a position of enforced powerlessness to one of power. Women empowerment promotes women's inherent strength and positive image' [7]. Empowerment of women is a crucial prerequisite for the alleviation of poverty, defense of human rights, and capacity building as a base for social change [8]. However, in a country like India, it is often difficult to involve poor women in economic and social activities. The lack of finance, education, enterprise, and the inability to take risks, are important constraints in this context. In such cases, policymakers often rely on self-help groups (hereinafter-SHGs) and micro credit programs to mobilize and empower women and use their collective enterprise to involve them in economic and social activities [9]. Micro credit is a well-suited choice for rural women as it provides them the required economic and social skills to face challenging environments. Micro credit for women, as a popular support, consists most typically of the provision of small loans, either to individuals or groups [10], and transform idle women into a productive workforce with their proven creditworthiness [11]. It is a well-planned system of providing small loans to poor communities for income-generating activities and to help them gain partial economic stability without encouraging debt [4]. Thus, micro credit can play a key role in boosting economic growth in any developing country. Consequently, access to micro credit is one of the most important elements of empowering poor women.

There has been an increasing trend to study the impact of SHGs on women empowerment because micro-credit programmes play a major role in supporting the Millennium Development Goals. However, literature review reveals that very few studies have, so far, concentrated on micro credit's impact on women's empowerment through SHGs in the state of Punjab, India. Keeping these views in mind, the present article, is an attempt to explore answer to the question—'Does micro credit loans and resources empower women through SHGs or not?'.

2. Literature Review

2.1. Origin of Micro-Credit System in India

Microcredit programmes in India were launched as a pilot concept under the SHG Bank Linkage programme, as initiated by National Bank for Agriculture and Rural Development (NABARD) in February 1992 [12], followed by mainstream (1995–1998) and expansion phases (1998 onwards) [13]. The SHG Bank Linkage programme is an arrangement for providing financial services to the poor in a sustainable manner. It strives to improve existing relations between the poor citizens and bankers with the social intermediation of NGOs, and it also empowers the members of SHGs [14]. Under the pilot phase, SHG-informal thrift and credit groups of poor rural women became bank clients [14]. Credit groups, referred to as SHGs, consist of ten to fifteen women who come together from a similar socio-economic background. Group formation is facilitated by NGOs, but the primary focus of the scheme is credit, with little attempt at capacity building. After six months of regular savings, groups become eligible for bank credit. The National Bank for Rural and Agricultural Development (NABARD), India's apex rural bank, provides 100 percent re-finance to the lending institutions [15].

2.2. Women Empowerment through Micro-Credit

Women represent half of the total population of the world, and in poor and developing economies, their contribution is a key variable of development. Unfortunately, they have limited access to positions of influence and power, because gender inequality, discrimination, and social constrains put them at an inferior status in all aspects of life. They have narrower occupational choices and lower income in comparison to men. In addition, they are expected to manage outside activities with their household chores. Therefore, the need for women empowerment in India emerged from this

harsh social scenario. As a result, micro credit programmes act as an effective tool to help the poor, especially women, to take up micro-level self-employment for poverty alleviation and improving their economic conditions [16]. In a formal banking system, it is essential to present a collateral to get financial assistance. Generally, rural women have little or no property or assets to present such collateral. Hence, micro credit facilitated a solution to this problem by providing collateral free loans at their doorstep [17]. Women with limited resources come together as an informal group. This leads to an increase in individual loans and security for the loans is given in the form of a collective guarantee to the bank [16]. Participation in micro credit programs improved poor women's ability to generate returns, which consequently led to an improvement in households' income, fixed assets, net working capital and increased spending on food, medical facilities, and children's schooling [18]. Women's participation in micro credit helps to generate social capital, which reduces intimate partner violence in the household [19] and make women economically independent and self-confident. There is an elevation in women's self-esteem and overall status in the households and the wider community [20]. Women participating in micro credit programmes can enhance their capability to exercise intervention in the intra-household processes. Moreover, it would decrease male bias and result in the overall welfare of the household [21].

2.3. Women Empowerment and Self-Help Groups in the State of Punjab

Punjab is referred to as one of the most prosperous states of India. According to the census of India 2011, per capita income of the state (Rs. 47834 per annum at constant prices) is much higher than the national average income (Rs. 38856 per annum). Economically, it has witnessed tremendous progress, but gender inequalities exist in terms of sex ratio, work participation rate, literacy rate, etc.

The latest statistics (2011)¹ show that Punjab's population constitutes 2.29 percent of the total population of the country. In Punjab, the gender composition is quite uneven due to the prevalent social and cultural factors. Women population constitutes about 47 percent of the total population of Punjab. In spite of such demographics, the sex ratio (895 females per thousand males) in the state is much below the national average (943 females per thousand males). In the year 2011, literacy rate of the state was 75.80 percent, which was slightly higher than the national figure (74.04 percent). Women literacy rate is lower than that of men both in Punjab, as well as in the country. Unfortunately, in Punjab, women constitute only 24 percent share in the total bank accounts. The unemployment rate in Punjab is very high as compared to the national figure. In per 1000 people, nearly 42 persons in Punjab are reported to be unemployed against 25 persons in the nation. Unemployment rate among females in Punjab (105) is very high in comparison to the national average (33). Work participation rate in Punjab state (35.67 percent) during the year 2011 was relatively low as compared to the country (39.79 percent). In Punjab, the participation rate of women in work (13.91 percent) is much lower than the national statistics (25.51 percent). Among the total states of India, Punjab occupied 28th position in measurement of gender gap with respect to work participation rate (Economic Advisor to Punjab Government 2014). This shows that the involvement of women in economic activities is very low in Punjab as compared to other states in India. Therefore, there is a dire need to improve the women's participation rate in Punjab's mainstream economy by increasing literacy, improving sex ratio, and promoting entrepreneurship for development of women, economically, managerially, as well as socially [22].

The government of Punjab started implementing various schemes and programmes for women empowerment, such as Mai Bhago Istri Shakti Scheme, along with national schemes and programmes for women's economic empowerment. The national schemes that are working in the state include, Rashtriya Mahila Kosh (RMK), Support to Training & Employment Programme for Women (STEP), Priyadarshini, besides National Mission for Empowerment of Women (NMEW), and Indira Gandhi

¹ http://censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

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Matritva Sahyog Yojana (IGMSY). These schemes have been initiated in order to promote the overall development of women to address the issues of gender equality and gender justice for women, to ensure social, economic and political empowerment of women, awareness and fulfillment of their rights, and to encourage participation and leadership.

Punjab has recorded a growth of 9.4% over the last 10 years. The state's growth has always been supported by a strong agri-sector output. The state contributes about three percent to India's GDP through its output in the agricultural sector. Punjab's agricultural sector is home to small and marginal farmers (80%). Therefore, sustainable agricultural growth and food security in Punjab depends on the performance of these small and marginal farmers. These farmers are heavily indebted as they are dependent on money lenders for credit facility. Also, majority of them live in rural areas, they are illiterate and are below poverty line. In comparison to urban population, rural people have limited access to all kinds of resources, such as education, transportation, training opportunities, credit facilities, and technology. These are problems that cannot be tackled individually but can be better solved through group efforts. Promotion of SHGs is one of the strategies that have been adopted by the government as part of their community participation approach for the socio-economic development of rural people [23]. The prime reason for respondents to join SHGs is rise in their societal status. It promotes activities that generate income, which, in turn, helps in getting a loan, promote savings, and increase the respondents' capability to repay old debts [24]. SHGs operating in rural Punjab, as part of the STEP (Strengthening, Training, and Employment Programme) project, are working for the social and economic upliftment of village womenfolk. These groups function on two models. According to one model, every member of a group deposits Rs 100 per month in a bank account. Then, the SHGs provide loans to members at an interest rate of 2%. The other model is that members make products, like pickles, jams, detergents, phenyls, etc. The products are sold at a small profit, which is distributed among the women [25].

Some basic facts and figures regarding women SHGs in the state of Punjab, India are depicted and are illustrated in the following Tables 1 and 2.

Table 1. Number of self-help groups (SHGs), women SHGs and their saving amount, loan disbursed by bank, and loan outstanding in Punjab (As on 31 March 2010). (Rs. in Lakh).

		Saving o	of SHGs		Banl	k Loans Disbu	rsement to S	SHGs	Bank l	Bank Loans Outstanding Against SHGs			
State Total SHGs		Wome	n SHGs	Total	SHGs	Wome	n SHGs	Total	SHGs	Women SHGs			
5c	No. of SHGs	Saving Amount	No. of SHGs	Saving Amount	No. of SHGs	Loan Amount	No. of SHGs	Loan Amount	No. of SHGs	Loans O/s	No. of SHGs	Loans O/s	
Punjab India	45,005 6,953,250	3645.10 619,870.89	38,673 5,310,436	3039.94 449,865.76	1790 1,586,822	1944.55 1,445,330.36	1229 1,294,476	1331.31 1,242,936.80	10,045 4,851,356	6708.38 2,803,828.07	5636 3,897,797	3654.28 2,303,036	

Source: Rajya Sabha Unstarred Question No. 1008, dated on 9 August 2011.

Table 2. Number of women SHGs engaging only women by type of establishment (without hired workers/with at least one hired worker/total) in rural and urban areas in Punjab (2012–2013).

		Rural			Urban			Combined	
State	Without Hired Workers	With at Least One Hired Worker	Total	Without Hired Workers	With at Least One Hired Worker	Total	Without Hired Workers	With at Least One Hired Worker	Total
Punjab India	9 140,400	36 16,381	45 156,781	16 27,875	40 4316	56 32,191	25 168,275	76 20,697	101 188,972

Source: Ministry of Statistics and Programme Implementation, Govt. of India. (ON1121).

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2.4. Previous Studies

Many researchers from different countries have worked extensively on the conceptual and empirical dimensions of micro credit and SHGs. They have also emphasized on the correlation between micro credit and societal and domestic empowerment of rural women.

Singh [26] conducted a research to study the impact of micro finance on empowerment of scheduled caste women in the states of Uttar Pradesh and Uttarakhand in India. The study inferred that these women have become more aware about their rights, privileges, and development programs after joining SHGs. It has also enabled them to start doing activities that generate income for substantial living and opportunities for self-employment. Access to micro finance has helped them in taking decisions both at domestic and market levels. Nader [27] conducted a primary study in Cairo to ascertain whether microcredit positively influenced the socio-economic conditions of women. The results confirmed that microcredit programs helped to increase the income and assets of rural women. In fact, there was an improvement observed in the education levels of children of such women who participated in microcredit programs. However, this study disapproved that microcredit improved the health conditions of family members or harmony in the participating families. He specified that increase in women's assets and income had a significant positive impact on economic independence and self-confidence of women. Kayser et al. [28] studied the changes in psychological, social and economic well-being of widowed and abandoned women in SHGs of Tamil Nadu after procuring microcredit facilities. The study revealed that microcredit programs benefitted such women, but the mechanism was not very user friendly. Because of this, many widowed and abandoned women in rural areas could not take full advantage of the micro credit schemes. Talekar and Biraadar [29] explored that SHGs were essential to overcome exploitation and enhance confidence in poor rural women. SHGs provide economic self-reliance to such women who are considered indiscernible in the society. SHGs help to build and nurture a relationship of mutual trust between rural poor and the promoting organizations by providing constant and sincere efforts. They also help to inculcate saving and banking habits among its members. Another important finding of this study was the significance of savings and its magnitude. The degree of savings was higher for urban people than the rural ones and SHGs serve as an alternative to the already existing system of credit payment by banks. Bhuvaneswari et al. [30] conducted a comparative study of SHGs in semi-urban villages and rural villages in the state of Karnataka, India. They discovered that a majority of rural people took micro credit for non-income generating and domestic activities, like marriage or for repayment of loans already taken. Whereas, people from semi-urban areas took loans for income generating activities, such as starting a new business, goat rearing, setting up a grocery shop, agricultural activities, and poultry farming. Latha and Kumar [31] observed a positive impact of SHGs on socio-economic development of rural womenfolk. They revealed that rural women who were part of SHGs were able to make profits and repay the microcredit loan installment regularly. This gave better livelihood conditions and a sense of empowerment to rural women. The authors suggested that, to make SHGs a success among rural people, subvention loan facilities should be provided, self-employment loans should be made available to individual SHG members, better marketing opportunities should be generated, and self-employment training should be provided to rural people. Al-Mamum et al. [18] steered a cross sectional study in Malaysia to assess the contribution of women in Amanah Ikhtiar Malaysia (AIM) microcredit program. The results revealed that the micro credit program empowered urban low-income women in the nation. They concluded that the AIM program increased the women's ability to take decisions in household matters, helped them to achieve economic security, gain better control over resources, improve their ability to go outside and work and increase their levels of legal awareness. The researchers suggested that AIM should target urban, low-income women for better sustainable development not only for themselves, but also to set an example for other microcredit organizations of Malaysia. Shakya [32] investigated the impact of micro credit on its borrowers in Nepal. She found an increase in income and savings of the female borrowers. The economic and social conditions of such women also became better.

3. Methodology

This study is a survey research, and therefore, a quantitative approach has been adopted. Specifically, this study used the cross-sectional survey technique. As the study did not intend to collect multiple data from the respondents over a period of time, the data was gathered once. A systematic, structured questionnaire is used as an instrument of data collection. This approach enabled the researchers to perform statistical analysis to explore the answer to the question—Does micro-credit programs empower women through SHGs or not? The target population of the study was women SHGs in rural and urban areas from selected cities of Punjab state, India. This population was chosen because most of these SHGs engage in micro credit programmes. Due to the large number of women SHGs in Punjab state (38673 SHGs²) and the lack of a sample frame, the study employed a convenience sampling technique. The reason for adopting this sampling technique was inaccessibility (unsafe for travel for foreigners in rural area of India, patriarchal family structure, and unwillingness to talk about financial issues), issues in interaction and connectivity (gender, education, and language barriers; and, distrust towards foreigners), and budget and time limitations. The sample size of the study was 200, where respondents belonged to selected cities of Punjab. These cities were: Chandigarh, Patiala, and Mohali. The rural and urban areas in the vicinity of the selected cities consist of a large proportion of migrant population from other parts of the state. Out of the 200 questionnaires distributed, 114 were used in the final analysis because those were correctly filled. The questionnaires that were not fully filled or were incomplete were excluded from the final analysis.

The questions were all closed ended questions and divided into four constructs (sections):

- (1) socio-demographic characteristics of the respondents;
- (2) income, expenditure, savings, and borrowing pattern before and after joining SHGs/using micro credit;
- (3) financial freedom through micro credit programmes before and after joining SHGs; and,
- (4) capacity building and awareness levels before and after joining SHGs/using micro credit.

These constructs were developed by the researchers based on the existing literature [6,23,33–35], views and recommendations of experts, and professors in the related field of research. These experts and professors have been selected based on their scientific publications, specific experience and knowledge of the different domains of women empowerment, micro credit, and SHGs in India. A pilot study has been done to pre-test the research instrument to ensure validity and reliability of constructs. The constructs were measured on a five-point Likert scale for both before and after joining SHGs/using micro credit. The Cronbach's alpha reliability coefficient of the instrument was 0.824, which indicates an acceptable level of internal consistency [36]. The questionnaire was self-administered. This was to ensure data quality and integrity. The data was collected from concerned women respondents after they participated in SHGs. This was done to compare the situation before and after participation in the SHGs/use of micro credit. The opinion of the local bank agents has been used to ensure the accuracy of recall data. The validity and reliability of recall data have been tested by using the profile of each member of SHGs in the local bank (village branch). This profile consists of information about their socio-economic situation at the time of joining. Data was analyzed by using descriptive statistics, and *t*-test in particular [33,37].

4. Data Analysis and Discussion

Table 3 presents the characteristics of the respondents who participated in the research. All of the members of SHGs were women and a majority of them (63.2%) were 25–44 years old. 73.7% of the respondents were married while 6.1% were single. More than half of the respondents (58.8%) were

Rajya Sabha Unstarred Question No. 1008, dated on 9 August 2011

Sikh and 38.6% were Hindu. Further, 88.6% of the participants belonged to the general caste where the common family size was 5–6 members (58.8%). A large percentage of participants (71.1%) could read and write and had a primary level education. A majority of SHG members (68.4%) seem to be better off with higher landless rates. 58.8% of the participants were engaged in non-agricultural wage labour. 76.3% of the respondents reported that their income from SHG activities fell in the range of 391 US\$ to 547 US\$ per annum. 85.1% of the respondents had less than five years of experience in SHGs, and only 14.9% had more than five years of working experience in SHGs. All of the participants belonged to labour class families and selling handmade crafts (42.2%) and food processing (28.9%) were their complementary occupations. The areas of operations were—local 40.4%, in other nearby towns—36.8%, and local and outside villages—22.8%, respectively.

Table 3. Demographic characteristics of the SHGs participants.

0 1	haracteristic(s)	Frequency $(N = 14)$	Percentage (%
	Less than 25	15	13.2
	25–34	32	28.1
	35–44	40	35.1
Age (years)	45–54	20	17.5
	55–64	7	6.1
	More than 65	-	-
	Single	7	6.1
	Married	84	73.7
Marital status	Divorced	10	8.8
	Widowed	13	11.4
	Sikh	67	58.8
	Hindu	44	38.6
Religion	Muslim	3	2.6
	Christian	-	-
	Scheduled Castes (SC)	7	6.1
	` ,		
Caste	Scheduled Tribes (ST)	4	3.5
	Other Backward Classes (OBC)	2	1.8
	General	101	88.6
	Illiterate	26	22.8
	Read only	-	-
Education	Read & write	44	38.6
	Primary school	37	32.5
	High school & above	7	6.1
	Below 4	42	36.8
Family size	5–6	67	58.8
	Any other	5	4.4
	Less than 1 acre	36	31.6
Cigo of landhalding	1–2 acres	-	-
Size of landholding	More than 2 acres	-	-
	Landless	78	68.4
	Farming/Agricultural labourers	31	27.2
Type of Occupation	Non-agricultural labourer	67	58.8
71 1	Business & others	16	14
	Less than 156 US\$	-	_
A 1 * /T TOO \$1	156 US\$-391 US\$	7	6.1
Annual income (US\$ *)	391 US\$-547 US\$	87	76.3
	Above 547 US\$	20	17.6
	Less than 5 years	97	85.1
Years in SHGs	5–10 years	17	14.9
icars in 511G5	More than 10 years	-	-
	Less than 20 members	34	29.8
Size of SHGs	20–30 members	74	64.9
	20 00 members	, 1	5.3

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Demographic Chara	cteristic(s)	Frequency $(N = 14)$	Percentage (%)
	Cottage industry activity	-	-
Type of occupation conducting by SHGs	Selling handmade crafts	81	71.1
Type of occupation conducting by SHGs	Food processing	33	28.9
	Any other	-	-
	Local	46	40.4
Area of operation	Local and outside villages	26	22.8
-	In other nearby town	42	36.8

^{* 1} US\$ = Indian Rs. 64.

The mean ratings, standard deviations and *t*-values of the participants' income, expenditure, savings and borrowing amounts before and after joining SHGs have been shown in Table 4.

Table 4. Comparison of SHGs participants' income, expenditure, savings and borrowing amount before and after joining SHGs/using micro credit.

Ct. to words Pote 1	Before Joi	ning SHGs	After Join	(37.1	
Statements Rated	M	SD	М	SD	- <i>t-</i> Value
Income, expenditure, savings, and borrowing pattern					
Monthly income	33 \$	0.65	43 \$	0.73	4.06 *
- Farming/Agriculture laborer	27 \$	069	39 \$	0.74	4.26 *
- Non-Agricultural laborer	39 \$	0.66	47 \$	0.69	3.64 *
Monthly consumption/expenditure	34 \$	0.72	39 \$	0.73	3.12 *
Monthly saving amount	7\$	0.66	16 \$	0.89	4.96 *
Monthly borrowings amount	12 \$	0.81	27 \$	0.71	5.83 *

^{*} Indicates 't' value significant at 0.05 level of confidence (df = 29).

A significant change in income, expenditure, savings, and borrowing amounts was observed among SHGs' participants before and after joining SHGs. SHGs work as a powerful tool for generating local income and employment in the rural areas. This is reflected by the increase in the mean value of response from 33 US\$ before joining SHGs to 43 US\$ after joining the same. The savings balance of the participants showed an ascending trend, which primarily helped them to fulfil the minimum eligibility criteria to access credit through external sources. This was exhibited by the increase in the mean value of the participants' responses from 7 US\$ to 16 US\$ before and after joining SHGs. The participants further endorsed that because of SHGs, their creditworthiness increased and loans through formal banking system became more accessible. This finding is reflected by the increase in the mean value of their responses from 12 US\$ to 27 US\$ before and after joining SHGs. The increase in the mean value of responses from 31 US\$ to 40 US\$ before and after joining SHGs, respectively, demonstrates the impact of the generation of local income on participants' expenditure pattern. It not only enhanced the savings and creditworthiness of the SHGs members, but it also promoted the expenditure/consumption patterns in the family.

The mean ratings, standard deviations, and *t*-values of the participants' 'financial freedom through micro credit programmes' before and after joining SHGs have been shown in Table 5.

The financial freedom is measured on 19 statements that collectively measure the changes in the level of financial independence, financial knowledge, and investment skills of the SHGs participants. The *t*-value (2.13–5.56) analysis indicates a significant change in financial freedom among respondents before and after joining SHGs. The results demonstrate very clearly that most of the participants have joined SHGs to acquire economic freedom to be able to save and/or invest for future financial needs (reserve fund for old age, healthcare requirements, children's education, marriage, etc.). They have also joined SHGs to increase their creditworthiness, get access to credit through formal banking system, to enhance their standard of living and for other welfare activities of the family. Another significant reason of joining SHGs is to increase financial and non-financial assets and manage unexpected

financial challenges in the most cost-effective way. There is an increase in the mean value of response from all the statements. It infers that, by joining SHGs and getting access to micro credit, women in Punjab have become more self-reliant and self-contained.

The mean ratings, standard deviations, and *t*-values of the participants' capacity building and awareness levels before and after joining SHGs have been shown in Table 6.

Table 5. Comparison of SHGs participants' financial freedom through micro credit programmes before and after joining SHGs.

Statements Rated	Before Joi	ning SHGs	After Join	4 37-1	
Statements Rated	M	SD	M	SD	t-Value
- I lives within my income.	2.63	0.83	3.5	0.86	2.76 *
- I am confident that I will have enough money for my future needs.	3.23	0.62	3.53	0.93	2.13 *
- I have adequate financial reserves in case of an emergency.	2.9	0.66	3.86	0.89	3.96 *
- I know how much I spend each month/year, and on what.	2.65	0.49	4.55	0.47	5.56 *
- I have trusted financial advisors with whom I am comfortable.	2.26	0.51	3.85	0.6	3.79 *
- I am clear about what I am (and what I am not) willing to do for money.	2.38	0.62	4.18	0.48	4.76 *
- I save and/or invest for the future.	2.21	0.48	3.89	0.67	3.29 *
- I have a financial plan that takes into account both my money goals and my life goals.	2.14	0.49	4.08	0.74	4.03 *
- I am comfortable in discussion regarding money issues with the people closest to me.	3.12	0.62	4.22	0.62	3.88 *
- I have a clear vision about what I want to accomplish financially.	2.21	0.75	3.86	0.6	4.23 *
- I understand my investments, including the risks and potential returns.	2.02	0.71	3.86	0.58	3.65 *
- I am comfortable with my current level of debt.	2.23	0.53	3.94	0.5	3.46 *
- I know 'how much is enough' for me.	2.4	0.65	4.02	0.5	4.12 *
- When I spend money, it is for things that add value to my life.	2.61	0.65	4.11	0.49	4.86 *
- I have analyzed my future financial needs with the support of a professional advisor.	1.87	0.67	3.53	0.51	5.26 *
- I review and make adjustments to my investment portfolio regularly.	2.26	0.58	3.74	0.53	3.50 *
- I am comfortable with the level at which I support the family and relative who are important to me.	2.4	0.6	4.12	0.51	3.86 *
- I have a clear picture of my future financial needs (funding for aging time, healthcare costs, children education, marriage, etc.).	1.96	0.81	3.35	0.61	3.74 *
- I am clear on my values related to my money and my life.	2.59	0.62	4.22	0.62	3.66 *

^{*} Indicates 't' value significant at the 0.05 level of confidence (df = 29). Rating Scale: 1. Strongly Disagree; 2. Disagree; 3. Undecided; 4. Agree; 5. Strongly Agree.

Table 6. Comparison of SHGs participants' capacity building and awareness levels before and after joining SHGs/using micro credit.

Statements Rated	Before Join	ning SHGs	After Join	ning SHGs	- t-Value
Statements Kated	M	SD	M	SD	- <i>t</i> -value
Social issues					
- Awareness about child labour practices	2.83	0.83	4.08	0.45	3.00 *
- Awareness about child marriage practices	2.76	0.67	4	1.01	3.23 *
- Awareness about domestic violence	2.9	0.66	4.07	0.74	3.79 *
- Awareness about social inequality	3.02	0.62	4.28	0.55	4.73 *
- Status in the family	2.43	0.51	3.14	1.15	1.65
- Status in the local society	2.14	0.73	3.2	1.04	2.76 *
- Decision making in the family	2.52	0.87	3.22	1.09	1.61
- Decision making in the group	2.34	0.59	4.1	0.73	4.64 *
Education issues					
- Literacy skills/education	1.56	0.96	4.01	0.87	5.83 *
- Women education	3.19	0.82	4.12	0.91	2.83 *
- Awareness about children's education	3.02	0.74	4.25	0.56	4.27 *
- Awareness about girl child's education	2.08	0.95	4.03	0.51	4.12 *

Table 6. Cont.

Ctatamanta Batad	Before Joi	ning SHGs	After Joining SHGs		. 37.1
Statements Rated	M	SD	M	SD	t-Value
Health issues					
- Awareness about sanitation	2.81	0.84	4.35	0.59	5.26 *
- Awareness about personal hygiene	3.04	0.89	4.3	0.51	4.96 *
- Awareness about AIDS	2.93	0.73	4.02	0.81	3.76 *
- Awareness about Aarogyasri Health Care Trust	3.17	0.9	4.1	0.51	3.65 *
- Adoption of small family norms	2.88	0.78	4.08	0.73	4.12 *
Economic issues					
- Ability to control over resources	2.36	0.66	3.72	0.79	3.23 *
- Creditworthiness	2.8	0.95	3.98	0.95	3.88 *
- Freedom from money lenders	2.23	0.8	4.15	0.73	4.79 *
- Banking habits	2.1	0.62	4.05	0.96	5.26 *
- Self-employment potential	3.36	0.6	4.12	0.73	3.29 *
- Communication skills	2.08	0.57	3.88	0.71	4.03 *
- Entrepreneurial skills	2.12	0.94	3.82	0.76	3.39 *
Political issues					
- Access to information about government programmes	1.88	0.74	4.02	0.72	5.63 *
- Awareness on women's rights	2.05	0.84	4.1	0.54	5.26 *
- Awareness of equal property rights for women	2.28	0.54	3.8	0.71	3.02 *
- Participation in development programmes	2.12	0.8	3.96	0.73	3.66 *
- Ability to meet and converse with government officials	1.76	0.65	3.73	0.82	5.39 *

^{*} Indicates 't' value significant at the 0.05 level of confidence (df = 29). Rating Scale: 1. Very Low; 2. Below Average;

As shown in Table 4, the statements that measured capacity building and the awareness level of respondents were divided into five dimensions, namely: (i) social issues; (ii) education issues; (iii) health issues (iv) economic issues; and, (v) political issues. The details of *t*-value analysis (both overall and division wise) clearly illustrate a significant improvement in the capacity building and awareness levels of participants after joining SHGs.

Social Issues. A significant change about social evils, especially in rural areas, was observed through the statement: awareness about child labour practices. This change is reflected by the increase in the mean value of response from 2.83 before joining to 4.08 after joining SHGs. The change in the mean value from 2.76 before joining to 4.00 after joining SHGs demonstrated the raised awareness of participants about child marriage practices. However, due to their social circumstances they compulsorily resort to the practice of child marriage and send their children to work and earn wages. The participants, especially from lower income groups, low education levels and weaker sections of the society, validated that there was an increased level of awareness towards domestic violence and social inequality after becoming a part of SHGs. The increase in the mean value of responses for awareness towards domestic violence and social inequality from 2.44; 3.20 to 4.07; 4.28, respectively, before and after joining SHGs is a clear demonstration of the same. The participants also revealed that group meetings and activities promoted their status in the local society and improved their decision-making ability. This is statistically reflected, respectively, by the increase in the mean value of responses from 2.14; 2.34 to 3.20; 4.10 before and after joining SHGs. Since the majority of the family members are also members of SHGs, they feel there is a sense of togetherness in the group and it also increases the scope of learning new things. They also believe that SHGs have augmented their capability to take effective decisions.

Education Issues. An old African proverb says, "If you educate a man you educate an individual, but if you educate a woman you educate a family—and a whole nation". Education is a process that essentially increases knowledge, and, in turn, changes attitudes and helps to develop skills [33]. Participants showed an enhancement in literacy skills or education, as was demonstrated by the increase in the mean value of their responses from 1.56 to 4.01 before and after joining SHGs. The mean value of responses towards the parameter of women education ascended to 4.12, after they joined SHGs. However, results reveal that the education levels of women did not improve significantly because of

^{3.} Average; 4. Above Average; 5. Very High.

work pressure and other unavoidable obligations in the family. For the statement, awareness about children's education, the mean value of responses changed from 3.02 to 4.25. A significant increase in the mean values (from pre to post phase of joining SHGs) was reported towards the response for the statement: awareness about girl child's education. Although the response was significantly higher, most of the girls do not attend schools, often because of family responsibilities, religious reasons, cultural pressures and inadequate facilities.

Health Issues. The Indian government must expand access to affordable and appropriate health services if it wishes to fulfil its commitment to provide Universal Health Coverage (UHC) to everyone. Micro credit based SHGs not only provide financial means to poor women and their families, but they also facilitate access to basic healthcare facilities. A significant change about sanitation was observed by the increase in the mean value of response from 2.81 before joining to 4.35 after joining SHGs. The pre-joining mean with respect to the statement, awareness about personal hygiene, was 3.04, which significantly ascended to 4.30 after joining SHGs. The mean value of responses was 4.02 with respect to the statement, awareness about AIDS and other related diseases after joining SHGs. There is a healthcare scheme 'Aarogyashri' in Punjab that leads all other healthcare schemes in the state. Its objective is to provide quality healthcare to the poor ([38]. Post joining SHGs, the mean response to the statement about awareness of Aarogyashri Health Care Trust significantly increased. The mean values shifted from 2.88 (before joining SHGs) to 4.08 (after joining SHGs) for the statement: adoption of small family norms. It is evident from this shift that SHGs' participants adopted the norms and values of a small family.

Economic Issues. SHGs are small groups of rural women where they share similar demographic characteristics and a sense of identity with each other. Because of this social uniformity, they feel more connected to the group. It is an effective tool to remove poverty and uplift the economic condition of women in India. The change in the mean value from 2.36 before joining to 3.72 after joining SHGs reflected the improved ability of the participants to control resources. The participants further endorsed that SHG was the main way to increase their creditworthiness and access to the loans through the formal banking system. The change in pre- and post-joining SHGs was also significant in the case of the statement, freedom from money lenders. Further, the participants affirmed that group activities and provision for micro credits improved their self-employment potential. It was supported by the fact that the mean value of their responses increased from 3.36 to 4.12 before and after joining SHGs, respectively. Finally, the participants validated that joining SHGs have not only facilitated the access to tangible assets and improved living condition of women, but it is also a powerful instrument for nurturing entrepreneurial and communication skills, as indicated, respectively, by the increase in the mean value of their responses from 2.08; 2.12 to 3.88; 3.82 before and after joining SHGs.

Political Issues. Micro credit based SHGs enhance the levels of self-esteem and self-worth among women, and, in turn, make them aware of social and political issues. This makes women more confident to move outside their homes and shun away traditional isolation in which they have been living since ages. The change in the mean value from 1.88 before joining SHGs to 4.02 after joining SHGs reflected the affirmation of the participants that their access to information about government programmes has increased ever since they joined SHGs. The participants responded that SHG was a collective effort for increasing their awareness on women's rights and equal property rights for women, as was revealed, respectively, by the increase in the mean value of their responses from 2.05; 2.28 to 4.10; 3.80 before and after joining SHGs. Their participation in development programmes significantly increased. This is evident from the increase in the mean value of responses from 2.12 to 3.96 before and after joining SHGs. Finally, participants' ability to meet and converse with government officials improved significantly after interacting with the group members.

5. Conclusions

The results of the study reveal that micro credit enabled SHGs to significantly impact the lives of rural women in the state of Punjab, India. The data exhibits that micro credit facilities instill

a sense of self-confidence and esteem among women and empower them financially, as well as socially. These results were in line with previous findings on the positive association of women empowerment with heightened levels of self-confidence and esteem [27,29,39]. Further, in accordance with prior literature [18,30–32], this research also revealed that micro credit programs have worked very successfully to raise the standard of living of not just rural women but also their families. The households have been able to become self-sufficient and move above the BPL (Below Poverty Line) tag. With the access to microfinance, women become empowered to take decisions that are related to their health, education of their children, and other household issues [18,27,29]. Women enjoy a position of significance in the family where earlier they were treated as mere bearers of children, responsible to do all household chores. With micro credit schemes coming at their doorstep, rural women look at themselves with a heightened sense of dignity and an equal financial contributor in the family [39]. It has a positive impact not just on the physical well-being of a woman, but it also influences her psychological and emotional states. We should not forget that a majority of India resides in its villages. By empowering rural women financially through microcredit based SHGs, we take a step forward in realizing the dream of a holistically developed nation.

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References

- 1. Gill, A.K. Women Empowerment through Self-Help Groups-A Case Study of Bijaydandi Development Block in Mandla District of Madhya Pradesh. *Natl. J. Hindi Sanskrit Res.* **2015**, *1*, 5–15.
- 2. Samal, S. Role of Self-Help Groups in The Empowerment of Women: A Revolution in Power Equations and Gender Relation. *Int. J. Appl. Res.* **2015**, *1*, 625–628.
- 3. Parveen, S.; Chaudhury, M.S.R. Micro-Credit Intervention and Its Effects on Empowerment of Rural Women: The BRAC Experience. *Bangladesh Res. Publ. J.* **2009**, *2*, 641–647.
- 4. Sultana, S.; Hasan, S.S. Impact of Micro-Credit on Economic Empowerment of Rural Women. *Agriculturists* **2010**, *8*, 43–49. [CrossRef]
- 5. Rao, Y. India's Women-Men Wage Gap is Amongst the Worst in the World. *Z. Bus.* **2017**. Available online: http://www.zeebiz.com/india/news-indias-women-men-wage-gap-is-amongst-the-worst-in-the-world-10813 (accessed on 24 March 2017).
- 6. Selvaraj, V.M. Problems and Prospects of Self-Help Groups in Thoothukudi District. Ph.D. Thesis, Manonmaniam Sundaranar University, Tirunelveli, India, October 2011.
- 7. Government of India. *Country Report on Fourth World Conference on Women*; Department of Women and Child Development, Ministry of Human Resources Development: Beijing, China, 1995; p. 116.
- 8. Jensen, R.I. Evaluation of DFID's Policy and Practice in Support of Gender Equality and Women's Empowerment; Evaluation Report EV669, III; DFID: London, UK, 2006; pp. 61–62.
- 9. Husain, Z.; Mukerjee, D.; Dutta, M. Are Women Self-Help Group Members Economically More Empowered in Left-Run Municipalities? *Dev. Pract.* **2013**, *23*, 107–122. [CrossRef]
- 10. Leach, F.; Sitaram, S. Microfinance and Women's Empowerment: A Lesson from India. *Dev. Pract.* **2002**, 12, 575–588. [CrossRef]
- 11. Chavan, P.; Ramakumar, R. Micro-Credit and Rural Poverty: An Analysis of Empirical Evidence. *Econ. Polit. Wkly.* **2002**, *37*, 955–965.
- 12. Garikipati, S. Microcredit and Women's Empowerment: Through the Lens of Time-Use Data from Rural India. *Dev. Chang.* **2012**, *43*, 719–750. [CrossRef]
- 13. Ansari, S.A. SHG Bank Linkage Programme in India: An Overview. *Int. Refereed J. Arts Sci. Commer.* **2011**, *1*, 12–19.
- 14. Sankaran, M. Micro Credit in India: An Overview. *World Rev. Entrep. Manag. Sustain. Dev.* **2005**, *1*, 91–100. [CrossRef]

15. Garikipati, S. The impact of Lending to Women on Household Vulnerability and Women's Empowerment: Evidence from India. *World Dev.* **2008**, *36*, 2620–2642. [CrossRef]

- 16. Rajeswari, R.M.; Sethurajan, S. An Impact of Micro Credit on Women Participating in Self Help Group. *PARIPEX-Indian J. Res.* **2016**, *4*, 475–477.
- 17. Kumar, D.; Hossain, A.; Gope, M.C. Role of Micro Credit Program in Empowering Rural Women in Bangladesh: A Study on Grameen Bank Bangladesh Limited. *Asian Bus. Rev.* **2015**, *3*, 114–120. [CrossRef]
- 18. Al-Mamun, A.; Wahab, S.A.; Mazumder, M.N.H.; Su, Z. Empirical Investigation on the Impact of Microcredit on Women Empowerment in Urban Peninsular Malaysia. *J. Dev. Areas* **2014**, *48*, 287–306. [CrossRef]
- 19. Pronyk, P.M.; Harpham, T.; Busza, J.; Phetla, G.; Morison, L.A.; Hargreaves, J.R.; Kim, J.C.; Watts, C.H.; Porter, J.D. Can Social Capital be Intentionally Generated? A Randomized Trial from Rural South Africa. *Soc. Sci. Med.* **2008**, *67*, 1559–1570. [CrossRef] [PubMed]
- 20. Kabeer, N. Conflicts over Credit: Re-Evaluating the Empowerment Potential of Loans to Women in Rural Bangladesh. *World Dev.* **2001**, *29*, 63–84. [CrossRef]
- 21. Mahmud, S. Actually, How Empowering is Microcredit? Dev. Chang. 2003, 34, 577-605. [CrossRef]
- 22. Kapila, M.; Singla, A.; Gupta, M.L. Impact of Microcredit on Women Empowerment in India: An Empirical Study of Punjab State. In Proceedings of the World Congress on Engineering, London, UK, 29 June–1 July 2016; Volume 2, pp. 821–825.
- 23. Kaur, L. Impact of Self-Help Groups on Women Empowerment in Punjab. Ph.D. Thesis, Punjab Agricultural University, Ludhiana, India, 2014.
- 24. Lakshmi, R.; Vadivalagan, G. Reflections on Self-Help Groups and Their Mammoth Growth in the State of Tamilnadu, India. *Al-Barkaat J. Financ. Manag.* **2011**, *3*, 81–87.
- 25. Kaur, S. SHGs in Punjab Extend Help to Rural Women. *Financ. Express* **2009**. Available online: http://www.financialexpress.com/archive/shgs-in-punjab-extend-help-to-rural-women/522156/ (accessed on 22 June 2016).
- 26. Singh, S.K. *Micro-Finance and Empowerment of Scheduled Caste Women: An Impact Study of SHGs in Uttar Pradesh and Uttaranchal;* Planning Commission—Government of India: New Delhi, India, 2004.
- 27. Nader, Y.F. Microcredit and the Socio-Economic Wellbeing of Women and Their Families in Cairo. *J. Socio-Econ.* **2008**, *37*, 644–656. [CrossRef]
- 28. Kayser, K.; Lombe, M.; Newransky, C.; Tower, G.; Raj, P.M. Microcredit Self-Help Groups for Widowed and Abandoned Women in South India: Do They Help? *J. Soc. Serv. Res.* **2010**, *36*, 12–23. [CrossRef]
- 29. Talekar, S.D.; Biraadar, M.B. *Micro Credit Management by Women's Self-Help Groups*; Discovery Publishing House: New Delhi, India, 2011; pp. 33–37.
- 30. Bhuvaneswari, G.K.; Patil, A.; Hunshal, C.S. Comparative Study on Micro Credit Management of Self Help Groups in Peri-Urban and Rural Areas. *Karnataka J. Agric. Sci.* **2011**, 24, 188–192.
- 31. Latha, M.; Kumar, G.C. A study on Agricultural Women Self Help Groups (SHGs) Members Micro Credit Analysis in Trichy district, Tamil Nadu. *Int. J. Exclus. Manag. Res.* **2012**, 2. Available online: http://ijemr.in/wp-content/uploads/2018/01/A-study-on-Agricultural-women-Self-Help-Groups-SHGs-Members-Micro-credit-Analysis-in-Trichy-district.pdf (accessed on 3 March 2017).
- 32. Shakya, K. Microfinance and Woman Empowerment. Bachelor's Thesis, Arcada University of Applied Sciences, Helsinki, Finland, 2016.
- 33. Meena, M.S.; Jain, D.; Meena, H.R. Measurement of Attitudes of Rural Women towards Self-Help Groups. *J. Agric. Educ. Ext.* **2008**, *14*, 217–229. [CrossRef]
- 34. Kumari, P.M. Empowerment of Women and Rural Development: A Study of Self-Help Groups in West Godavari District. Ph.D. Thesis, Acharya Nagarjuna University, Guntur, India, August 2009.
- 35. Srimathi, S. Economic Empowerment of Women Entrepreneurs through Self-Help Groups: A Study with Special Reference to Thiruvarur & Thanjavur districts of Tamil Nadu State. Ph.D. Thesis, The Bharathidasan University, Tiruchirappalli, India, February 2012.
- 36. George, D.; Mallery, M. *Using SPSS for Windows Step by Step: A Simple Guide and Reference*, 14th ed.; Allyn & Bacon: Boston, MA, USA, 2003.
- 37. Meena, M.S.; Singh, K.M. Measurement of Attitude and Behavior of Self-Help Group Members: Evaluative Study of Eastern India; Munich Personal RePEc Archive, Munich University Library: Munich, Germany, 2012.

38. Prinja, S.; Chauhan, A.S.; Karan, A.; Kaur, G.; Kumar, R. Impact of Publicly Financed Health Insurance Schemes on Healthcare Utilization and Financial Risk Protection in India: A Systematic Review. *PLoS ONE* **2017**, *12*, e0170996. [CrossRef] [PubMed]

39. Nithyanandhan, S.H.; Mansor, N. Self Help Groups and Women's Empowerment. Inst. Econ. 2015, 7, 143–164.



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