# An Empirical Study of the Impact of Socio-Demographic Variables on Availing Loan By SHG Members

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## ABSTRACT

*Self-help groups (SHGs) are emerging as an alternative mechanism to meet the urgent credit needs of poor through thrift. The traditional Indian society functioned mainly on the basis of self help and mutual aid. However, in recent years, they have been emerging as a major strategy for the promotion of informal credit to the poor. SHGs have played a significant role in reaching out to the remote village in the country and contribution to the rural development and to the growth to the economy. Hence, the present study is aimed at to analyze the impact of socio-demographic variables on the loan to the SHG members in rural development and income generation. The study is based on primary data, which are collected from 149 members of SHGs in Puducherry region through interview schedule. Mean, Standard Deviation, 't' test, F test, Mann-Whitney U test, Kruskal -Wallis H test, Multiple Regression are the tools applied for analysis. The study proves that size of loan availed from SHG is dependent on family income of the SHG members. There is a significant relationship between the level of loan availed and role as well as status of the members in SHG. There is no significant association between the sizes of loan availed from SHG and improvement in the status of members after joining SHG. However, there is a significant association between availing loan from SHG and educational status of SHG members.*

**Key Words:** *Self Help Groups (SHGs); Micro Finance (MF); Micro Finance Institutions (MFIs); Non-Government Organizations (NGOs); Women Empowerment (WE); JEL Classification: R51, I32, H81*

## Introduction

Self Help Group (SHG) is a tool to remove poverty and improve the rural development. In India, about 80 per cent of the population lives in villages. In recent years, SHGs are emerging as an alternative mechanism to meet the urgent credit needs of poor through thrift. These intermediaries are not effectively serving the rural population as their credit needs are considered to be non-productive, involve high risk of repayment, absence of collateral securities. In order to combat this, a surge of interest in micro-finance (MF), particularly in the context of reaching the poor families has been undertaken in a more effective way.

SHG is a group or association of individuals with common economic needs who undertake a systematic economic activity, participating directly in decision making and sharing benefits on an equitable basis. Common goal and mutual trust worthiness among members are SHGs' strong points. An SHG can be defined as a voluntary association of the poor with a common goal of social and economic empowerment. SHGs are not a view concept in development. The traditional Indian society functioned mainly on the basis of self help and mutual aid. However, in recent years, they have been emerging as a major strategy for the promotion of informal credit to the poor.

## Literature Review

Women could accumulate assets in terms of jewels, television, steel bureau and are able to install the facility of electricity, purchase livestock, land for construction, leasing in cultivable land. The repayment was 100 per cent and the members' awareness on daughters' education, out contacts and decision-making skill were improved (Anjugam, M. et al. 2001). More grants and aids would help weaving and textile enterprise; eventually streamline the various activities of the SHGs resulting ultimately in economic prosperity and social stability for them (Das, R. et al. 2001).

The rate of recovery is very high when compared to the rate of recovery of the formal institutional system (Kallur, M. S. 2001). Despite several lobbies the bank loan to below poverty level (BPL) is difficult to avail. The above poverty level (APL) families by virtue of their greater awareness, education and managerial abilities were able to get more benefits. Undue delay in sanctioning of loan must be avoided. An extensive campaign is needed to educate the bankers that advancing credit to them is more profitable and same in terms of recovery (Kamal Vatta, et al. 2001). The success of group lending is attributable not only to peer monitoring but also to other factors such as lending for consumption purposes (as is required by the rural poor), saving, rotation of saving by group members and not the least because of an active non-government organization (NGO) (Madheswaran, S. et al. 2001).

There was a significant difference in the mean performance of the entrepreneurs based on their age, and education (Manimekalai, N. et al. 2001). A comparison of the over dues of SHG beneficiaries with those of co–operatives showed that the latter had a high level of over dues (Rs. 4,884) when compared to the former (Rs.1,012) per household. 53 per

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cent of the variation in over dues position was explained by debt – asset ratio, educational level of the beneficiaries and membership of SHGs. The transaction costs were found to be higher in the SHGs due to high interest charges when compared to the co – operatives (Malaisamy, A. et al. 2001).

The average annual saving per member was Rs.550 in the Self – Help age group of 2-3 years, which almost doubled and the loan advanced has been increased by 33 per cent after a period of four years. The repayment of loan was to the extent of 95 to 98 per cent. The annual net family income of the members in the post–SHG situation is increased by 23 per cent over the pre–SHG situation. Social condition of the members considerably improved after joining the group activities. (Nedumaran, S. et al. 2001). All the SHGs in the villages have actively involved themselves in various developmental activities that have greatly influenced the socio-economic wellbeing of the villagers (Ponnarasi, T. et al. 2001). The involvement in the group significantly contributed in improving the self–confidence of the members. The feeling of self–worth and communication with others improved after association with the SHGs (Puhazendhi, V. et al. 2001). There is a significant change in the participation of group members in diversifying income generating economic activities.

Though the credit needs of members are not effectively met, the programme is financially sustainable. The members reported that they did not borrow from moneylenders in emergencies any more (Ragavendra, T. S. 2001). Regular meetings, compulsory attendance, and savings are involved in creating social awareness on dowry, nutrition, AIDS, literacy, multiple roles of women (Rao, V. M. 2001).

SHGs made a lasting impact on the lives of the poor and the quality of life is improved on the family in terms of increase in income, savings, consumption expenditure, gaining self-confidence, productive use of free time, getting opportunity to improve hidden talents. It has contributed to address poverty and unemployment and able to bring social transformation through economic development and social wellbeing (Rekha, R. Baonkar 2001). The Rashtriya Gramin Vikas Nidhi Credit and Savings Programme in Assam has succeeded in inculcating the habit of saving among the members. It also helped them to free themselves from the clutches of non–formal sources of credit. The SHGs have helped to set up a number of micro enterprises for its focus is exclusively on the rural poor; it adopted a credit delivery system designed especially for them with the support of a specially trained staff and a policy with no political intervention at any stage in the implementation of the programme (Saundarjya Borbora, et al. 2001). The significant changes realized in terms of increase in income,

assets, savings, borrowing capacity and income generating activities must be sustained by safeguarding the healthy growth of SHG movement in India (Sharma, K. C. 2001).

The SHGs replaced the moneylenders; credit delivery was made simple and quick with lower interest. Recovery rate has been ranged from 95 per cent to 100 per cent. The important benefit of SHGs is compulsory saving even cutting the necessary expenditures (Singh, D. K. 2001). The average total membership (17), the average total savings (Rs.16,333), the average total lending (Rs.17,537), and average total defaults (Rs.956) were found to be higher in rural SHGs than that of in urban SHGs. The average thrift credit of urban SHGs (91 per cent) was lower than that of the rural SHGs (93 per cent), implying that the overall financial performance of the urban SHGs was better than that of the rural SHGs (Srinivasan, G. et al. 2001).

There has been an increase in the savings and credit performance and the loans were extended to farm work, education, medical expenses, and social functions, livestock and for non-productive purposes. SHGs have become a platform for exchange of experience and ideas beyond social participation by each other (Tilekar, S. N. et al. 2001). The women groups started to educate realized the importance and significance of literacy whereas a lot of enthusiasm has been generated and the SHGs had a greater vision in empowerment of rural women and for overall human development. Moreover, the SHG members proved the way to the power of decision making to the women of their family, and also create a mass on socio-economic and political conditions (Dwarakanath, H. D. 2002).

Women in SHGs are currently involved in economic activities such as production and marketing of agar-bathis, candle and soap, readymade garments, pickles, fur toys, bags, palm leaf products, dhotis, herbal products, fancy sea shell, ornaments, eatables, coir mats and other coir products, mattress, chapels, leather goods. In addition, the women in SHGs monitor the normal functioning of the ration shops, maintain vigil to prevent brewing of illicit group, help the aged, deserted and windows to obtain loan (Jothy, K. et al. 2002). SHGs in several categories including women, joint farmers groups, and social forestry groups were formed. Underling the strengths and weaknesses, the challenges to be faced have been brought out. The attitude of other banks needs to be changed, government should encourage and support NGOs to attempt group approach and create a favorable policy environment, needs to adopt flexibility by banks in providing money to groups through Self Help Promotion Institute. MF activities are oriented towards lending to individuals, using groups as a risk reduction mechanism. In the long run it may lead to establishment of another set of informal banking

institutions, which are in competition with money lenders, traders, commission agents. There is a possibility of loss of resources of the poor if not protected adequately against any possible crisis (Mishra, S. R. K. 2002).

The amount of loans taken from the banks was high when compared to the internal borrowing from the SHGs. But the rate of interest was high in the latter category. Rural women have been saved from social and economic exploitation by the moneylenders, big landlords, arhtiyas and others. The additional income generated in this way with the help of SHGs also provide moral support and brought new changes in rural economy in the state as well as to the country in future (Rangi, P. S. et al. 2002). The components of empowerment could be subjected to factor analysis and suggested that the women should be identified by the women themselves in preference to the top-down approach, welfare programmes for the women rather than beneficiaries (Vijayanthi, K. N. 2002).

Government and Non-Government agencies can play a pro-active role in mobilizing, organizing and sustaining SHGs, necessary managerial, technical and marketing skills can be imparted to groups to enhance their livelihood opportunities (Chiranjeevulu, T. 2003). Participation in SHGs has improved the access of women to credit. The quality of employment indicated by shift from wage to self-employment of women as well as their families (when the other family members also participated in the activity undertaken by the women) is enhanced. All these indicate that the incomes of the poor have increased and as a result the intensity of poverty (poverty gap) among the poor has come down (Galab, S. et al. 2003).

The men should also be brought within the purview of development intervention if women are to be empowered. It was further found that the women who earn do not convert income to meet their personal needs. Their mobility is restricted to visiting husbands, parent's home and that is done after the permission granted from husband (Rajasekar, D. 2003). A high loan interest rate policy produces SHGs that are strong financial institutions (Srinivasan, R. 2003). Federations help SHGs to become institutionally and financially sustainable because they provide the economies of scale that reduce transaction costs and make the provision of these services viable. However, their sustainability is constrained by several factors–both internal, related to the federations themselves and external, related to the other stakeholders (Nair Ajai, 2005). SHGs found that MF plays a main role in the film but only 40 per cent of SHG members felt that it was brought improvement in health fully (Anant Kumar, 2006).

Unlike the low lending groups, which were hesitant to lend for non-food consumption purpose, moderate lending groups seem to have diversified their lending purposes. Economic statuses of the group members tend to reflect the differential number of loans across the survey locations. There is no conclusive evidence on the bias due to caste heterogeneity (Balaji Nagendra Kumar, V. 2006). The reliance of these people on forests, though not reduced to a great extent, has improved the forest conditions through various activities in addition to enhancing their income (Jagannatha Rao, R. 2006).

The group approach in rural MF among women has inspired the tendency to look at all networking as essentially good and desirable in rural community development, without acknowledging the entrenched caste, class, ethnic and religious hierarchies that lead to diversities among women found that the Government schemes designed for poverty alleviation among rural women tend to be influenced by concepts and models that have been successful elsewhere, but do not take into account the diversities of situations at the local level (Lahiri-Dutt, K. et al. 2006).

When considered within constructs of empowerment, capability poverty, citizenship, and participation in democratic processes, such SHG outcomes, and the community development processes that accompany their work, can be seen to make a modest but significant contribution to broader transformations of oppressive structures (Tesoriero, F. 2006). The number of households having informal borrowings, especially from moneylenders has been recorded to be higher among the members before joining the group and social backwardness, indebtedness and presence of other MC programmes in the same or nearby villages have a significant positive influence on women's participation in this programme (Anjugam, M. et al. 2007).

Women's participation in SHGs enabled them to discover inner strength, gain self-confidence, social and EE and capacity building (Kaushal, S. K. 2007). The women entrepreneurship is very low in India, especially in the rural areas. In advanced countries, there is a phenomenon of increase in the number of self-employed women after the Second World War; the delivery of MF to the poor is productive, effective and less costly, if they are organized in to SHGs. The SHG movement in India, in general, and Andhra Pradesh in particular, has metamorphosed the rural economic scenario perceptibly (Shanmukha Rao Padala, 2007).

Though some of the groups have been in existence for about ten years, few have been able to significantly improve the quality of life or income level of members. Furthermore, these

groups have had virtually no effect on larger social issues in the area; and the rights and social perception of women have not changed significantly (Sudha Venu Menon, 2007). The slow progress of SHGs-Bank linkage programme was due to shortage of capable promotional institution hesitation on the part of the banks as loans to SHGs are collateral free, dependency of SHGs on promoting agencies for routine work such as convening and conducting meetings, maintaining book of accounts, lack of entrepreneurial training and skills up-gradation facilities, imbalanced growth of SHGs (Lokhande, M. A. 2008).

Women participate in every activity which is sine-qua-non for rural as well as economic development of any country. The government should take appropriate policies towards reservation for women, information access with proper data base system exclusively for women, paving the way for integrated women's development in RA (Makar, A. K. et al. 2008). The basic reason behind the shortfall in credit plus performance is the lack of desired level of interventions of the self-help promoting institutions or the facilitator in the group activities (Neeta Tapan, 2008).

There is a simultaneous increase of plantation crops, horticultural crops, increased milk production, meat production and shifting from traditional crop production to cash crops indicates a good deal of crop diversification, which has become possible due to the efforts of the SHGs in watershed areas (Panda, R. K. 2008). There is a negative impact of subsidy on the financial sustainability of SHG operations, which should be curbed by encouraging group formations with non-subsidized finance (Pati, A. P. 2008).

Credit was available for agricultural production, processing and petty trading among women farmers. Loan repayment percentage was determined to be 83.73 per cent while percentage default was 17.27 per cent. The estimated regression model indicated that women as household heads, interest rate and household size, significantly negatively affected the loan repayment performance of women farmers while price stability of farm precedes and commitment to SHGs, significantly positively affected the loan repayment of women farmers in SHGs in the area (Ugbomeh, G. M. M. et al. 2008). Some households' individual characteristics and economic condition influence households' participation in ROSCA and ASCRA. In particular, being older, working as government employee and having higher education and steady income, although, social sanction is a useful enforcement tools but it can cause internal credit constraint on socially active households (Anggraeni, L. 2009). SHGs process of loan sanction is easy when compared to banks loan sanction process and there is no criterion for granting

loan, since no respondent has been asked by his or her caste, education qualification, economic status, and collateral while granting the loan (Sudarsana Reddy, G. et al. 2009). Over the last two decades, micro credit has acquired a greater dimension and recognition as an instrument for meeting the credit needs of the poor for starting up their income generating activities or MEs (Tamilmani, B. 2009).

Although many research studies are undertaken in the field of SHG with the objective of finding the impact of MF to reduce poverty, only few studies relate the relationship between the socio-demographic variables on the loan availed. Hence, this study is a maiden attempt to analyze the impact of socio-demographic variables on the loan availed by the members of SHGs.

## Problems & Scope of the Study

- Socio-economic conditions of members of SHGs affect the active participation.

- Socio-economic conditions of the members of SHGs cause the savings of the members.

SHGs have played a noteworthy role in reaching out to the remote village in the country and contribution to the rural development and to the growth to the economy. Hence, the present study is aimed at to analyze the impact of socio-demographic variables on the loan to the members of SHGs in rural development and income generation.

## Objectives of the Study and Hypotheses Development

- To assess the participation of members in self-help groups, and to study the impact of members in active participation towards socio-economic wellbeing.

- To ascertain the status of loan availed from SHG and to analyze the relationship between the sizes of loan availed and the socio-economic progress of the SHG members.

In order to achieve the stated objectives few working hypotheses have been developed:

» $H_0^1$ "Availing of loan from SHG is independent of educational status of the SHG members".

» $H_0^2$ "Availing of loan from SHG is independent of income of the SHG members".

» $H_0^3$ "Availing of loan from SHG is independent of role as well as status of the SHG members".

## Research Methodology

The study is based on primary data, which are collected from the members through interview schedule. The first part of the interview schedule consists of identification of the members' perception; the second part consists of socio-economic characteristics; and the third part covers the participation of the members in SHG. The data for the present study were collected from 149 SHG members in the Puducherry region (Pondichery Union Territory, India).

### Table 1
### Number of Self-Help Groups in the Selected Region

| Sl.No. | Area/Commune | Number of SHGs |
|---|---|---|
| 1 | Ariankuppam | 96 |
| 2 | Bahour | 338 |
| 3 | Nettapakkam | 186 |
| | Total | 620 |

*Source:* Directories of Self help groups of SGSY (up to July 09) - Puducherry – (Union Territory)

### Chart-A
### Number of SHGs in the Selected Region
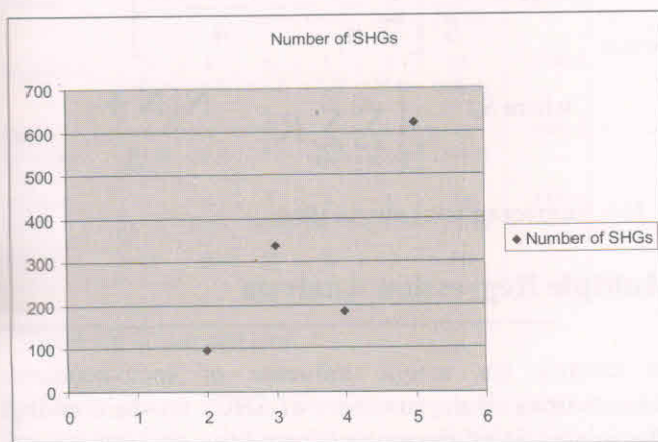


*Source:* Directories of Self-help groups of SGSY (up to July 09) - Puducherry – (Union Territory)

## Tools Used for Data Collection

Consultations and exploratory discussions were held with the SHG members and leaders and also with some of the MFIs. Based on their ideas and opinions the interview schedules were framed. The language used in the interview schedule is simple, clear and easy. Finally, 155 schedules were issued to the members for collection of data. The data collected were scrutinized for edition to identify and detect ambiguity either in the meaning or in the structure of the schedule. On the basis of the results, suitable modifications/deletions/additions were made to make the schedule more accurate and standard.

### Table 2
### Sample Frame for the Study

| Area /Commune | Population size | Selection of Sample Respondents | Sample size |
|---|---|---|---|
| Ariyankuppam | 1-96 | 4,8,12,16,20,24,28,32,36,40, 44,48,52,56,60,64,68,72,76,80 84,88,92,96. | 24 |
| Bahoor | 97-434 | 100,104,108,112,116,120,124,128,132,136 140,144,148,152,156,160,164,168,172,176 180,184,188,192,196,200,204,208,212,216 220,224,228,232,236,240,244,248,252,256 260,264,268,272,276,280,284,288,292,296 300,304,308,312,316,320,324,328,332,336 340,344,348,352,356,360,364,368,372,376 380,384,388,392,396,400,404,408,412,416 420,424,428,432. | 84 |
| Nettapakkam | 435-620 | 436,440,444,448,452,456,460,464,468,472 476,480,484,488,492,496,500,504,508,512 516,520,524,528,532,536,540,544,548,552 556,560,564,568,572,576,580,584,588,592 596,600,604,608,612,616,620. | 47 |
| Total | 620 | Total Sample Respondents | 155 |

*Source:* Directories of Self Help Groups of SGSY (up to July 09) – Ariyankuppam - Puducherry – (Union Territory)

## Sampling Procedure and Technique

For this study only Puducherry (Union Territory) region is taken. The study has been conducted based on the primary data collected from the respondents of Ariyankuppam Commune in Puducherry. The selected commune has three areas as detailed in table 1, consisting of 620 members of SHGs. The sample size has been decided as 155. The sample respondents have been chosen by Systematic Random Sample Technique. For choosing the ultimate sample respondents, the sample interval (SI) has been computed by N/n, where N = the size of population, the n = the size of sample. Therefore, the SI = 620/155 = 4, thereby the ultimate sample size works out to be 155. Out of 155 respondents 6 respondents' response is ineffective; hence the ultimate effective sample size constitutes 149 respondents only.

| Where | SI | = | Sample Interval |
|---|---|---|---|
| | N | = | Size of Population |
| | n | = | Size of Sample |

| Sample Interval (SI) | = | N/n |
|---|---|---|
| | = | 620/155 |
| | = | 4 |

## Research Methods for Analysis

The data collected from sample respondents among the members of SHGs in Puducherry region are analyzed by use of appropriate statistical techniques viz., descriptive statistics like Mean, Standard Deviation, and statistical tools like T-test, F test, Mann-Whitney U test, Kruskal-Wallis H test, and Multiple Regression analysis.

**Mean ($\overline{X}$)**    $\overline{X} = \dfrac{\sum X_i}{n}$

**Standard Deviation ($\sigma$)**    $\sigma = \sqrt{\dfrac{\sum X_i^2}{n} - (\overline{X})^2}$

### 't' Test

This test is used to determine the significant difference in mean perception scores between two respondent groups. The formula for calculating the 't' value is:

$$= \frac{(X_1 - X_2)}{\sqrt{\dfrac{\sigma_1^2}{n_1} + \dfrac{\sigma_2^2}{n_2}}}$$

Where,

| | | |
|---|---|---|
| $\overline{X_1}$ | = | Mean of the group 1 |
| $\overline{X_2}$ | = | Mean of the group 2 |
| $\sigma_1^2$ | = | Variance of the group 1 |
| $\sigma_2^2$ | = | Variance of the group 2 |
| n1 | = | Size of the Group 1 |
| n2 | = | Size of the Group 2 |

### F test

F test, often called as One Way Analysis of Variance, is used to find out the significant difference in means perception among three or more respondent groups with different characteristics. The formula for calculating ratio of variance or simply 'F' is

$$F = \frac{S_B^2}{S_W^2}$$

Where,

| | | |
|---|---|---|
| F | = | Ratio of variance (F Value) |
| $S_B^2$ | = | Between group variance |
| $S_w^2$ | = | Within group variance |

### Mann-Whitney U test

The Mann-Whitney U test is applied to find out the significance of the difference in opinion between two respondent groups based on some of the socio-economic characteristics, wherever it is necessary.

$$U = n1 . n2 + \frac{n1 (n1+ 1)}{2} - R1$$

| | | |
|---|---|---|
| n1 and n2 | = | Sample size |
| R1 | = | Sum of rank |

### Kruskal -Wallis H test

The Kruskal Wallis test, called as H test, is alternative procedure to a one-way ANOVA. The H test assumes that the population variances are equal. And, unlike an ANOVA test, the H test (nonparametric alternative) can be used with ordinal or ranked data. The Kruskal Wallis test calculates 'H' value as test statistics. In order to calculate H value using H test, the combined observations yij, are arranged in to order of magnitude and replaced with their ranks, Rij. Then calculated the sum of the ranks for the responses to each treatment, Ri and then calculated H using the following formula:

$$H = \frac{1}{S^2}\left[ \sum_{i=1}^{a} \frac{R_{i.}^2}{n_i} - \frac{N(N+1)^2}{4} \right]$$

$$\text{where } S2 = \frac{1}{.1}\left| \sum_{i=1}^{a} \sum_{j=1}^{n_i} R_{ij}^2 - \frac{N(N+}{4} \right.$$

N = Number of total observations.

## Multiple Regression Analysis

To identify the unique influence of socio-economic characteristics of the members of SHGs on their savings after joining SHG, the multiple regression analysis is used. The collective impact (explained variation) of all socio-economic variables on the savings can also be ascertained using this technique.

$$Y = B_1 X_1 + B_2 X_2 + \ldots\ldots + B_k X_k$$

Limitations and Scope for Further Studies

- Due to paucity of time and resources the study is limited to only the residents of Puducherry Union Territory region only.

- Although there are many regions in Puducherry, the study is confined to only in Ariyankuppum region.

- As the study area is a village, few respondents refused/ hesitated to give response, and responses from few respondents are ineffective as they did not furnish the adequate data.

The study is based on a survey made in one of the communes of Union Territory of Puducherry; hence the inferences and results will be of much useful for further analysis if a study is conducted by drawing more sample units/respondents in a wide geographical area, covering the entire Union Territory of Puducherry. Further, studies in respect of the impact of SHG- Bank linkage programme could also be carried out. Studies could also be carried out in micro-enterprise skill development among entrepreneurs.
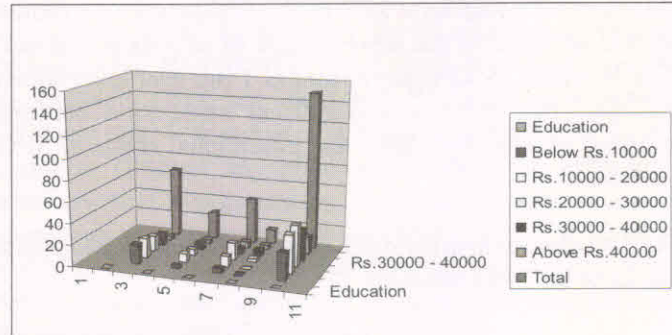
## Survey Results, Findings and Discussion

### Table 3
### Relationship between Loan Availed from SHG and Education (N = 149)

| Education | Below Rs.10000 | Rs.10000 - 20000 | Rs.20000 - 30000 | Rs.30000 - 40000 | Above Rs.40000 | Total | Kruskal Wallis ANOVA | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Sum of Ranks | H Value |
| Illiterate | 18 (27.3) | 18 (27.3) | 15 (22.7) | 12 (18.2) | 3 (4.6) | 66 (100.0) | 4114.5 | |
| Up to SSLC | 2 (7.7) | 8 (30.8) | 6 (23.1) | 6 (23.1) | 4 (15.4) | 26 (100.0) | 2147.0 | 16.42*** |
| Higher Secondary | 5 (11.6) | 10 (23.3) | 16 (37.2) | 6 (14.0) | 6 (14.0) | 43 (100.0) | 3383.5 | |
| Degree & Above | 1 (7.1) | 0 (0.0) | 3 (21.4) | 6 (42.9) | 4 (28.6) | 14 (100.0) | 1530.0 | |
| Total | 26 | 36 | 39 | 30 | 17 | 149 | | |

***Significant at 1 per cent level.

Self-help groups (SHGs) are voluntary, small size structure for mutual aid and for the accomplishment of a special purpose. The initiators of such groups emphasize face-to-face social interactions and the assumption of personal responsibility by members. Members make small regular saving contributions over a few months until there is enough capital in the group to begin lending. Funds may then be lent back to the members or to others in the village for productive purpose. Hence, in this paper an attempt has been made to study the impact of socio-demographic variables on the lending to SHG members.

### Chart – B
### Relationship between Loan Availed from SHG and Education (N = 149)



*Source :* Survey data

From the results of analysis for four different range of loan across four educational statuses of the SHG members, which are reported in table 3 it is evident that 42.9 per cent and 28.6 per cent of members who have education up to graduate level availed themselves of loan to an extent of Rs.30000 to Rs.40000 and above Rs.40000 respectively, which are higher when compared to that of those in the educational groups.

### Table 4
### Relationship between Loan Availed from SHG and Community (Caste) (N = 149)

| Community | Below Rs.10000 | Rs.10000 - 20000 | Rs.20000 - 30000 | Rs.30000 - 40000 | Above Rs.40000 | Total | Kruskal-Wallis ANOVA | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Sum of Ranks | H Value |
| SC/ST | 11 (20.4) | 15 (27.8) | 12 (22.2) | 8 (14.8) | 8 (14.8) | 54 (100.0) | 3874.0 | |
| MBC | 8 (13.1) | 13 (21.3) | 20 (32.8) | 16 (26.2) | 4 (6.6) | 61 (100.0) | 4780.5 | 0.73$^{NS}$ |
| Others | 7 (20.6) | 8 (23.5) | 8 (23.5) | 6 (17.7) | 5 (14.7) | 34 (100.0) | 2520.5 | |
| Total | 26 | 36 | 40 | 30 | 17 | 149 | | |

NS – Not Significant
SC – Scheduled Caste; ST – Scheduled Tribe; MBC – Most Backward Community

### Chart – C
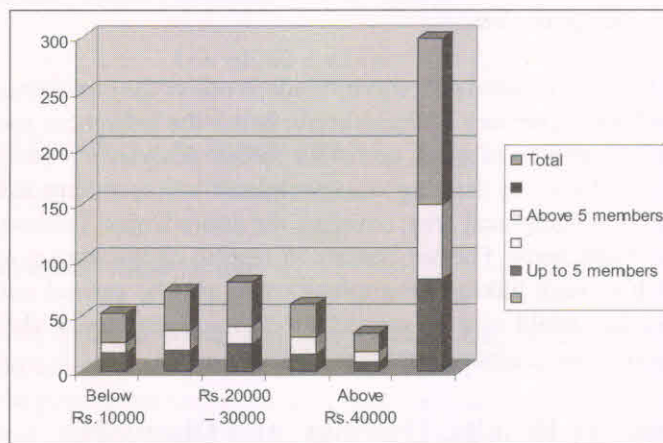### Relationship between Loan Availed from SHG and Community (Caste) (N = 149)
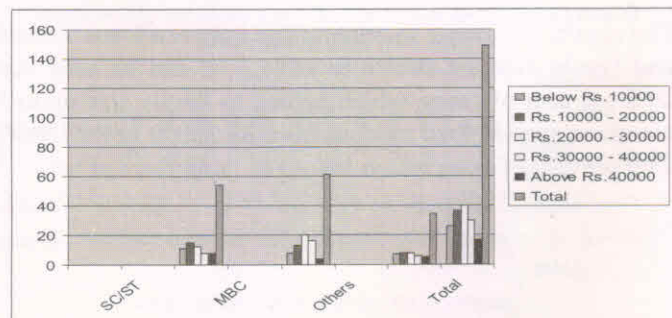


*Source:* Survey data

On the other hand, availing loan ranging from Rs.10000 to Rs.20000 and Rs.20000 to Rs.30000 is found to be more among non-graduates. Similarly, percentage of cases among illiterates with loan up to Rs.10000 is higher when compared to that of those in the other groups of education statuses. The H value, 16.42 is significant at 1 per cent level which indicates that there is a significant association between availing of loan from SHG and educational status of SHG members.

$H_0^1$ "Availing of loan from SHG is independent of educational status of the SHG members".

### Table 5
**Relationship between Loan Availed from SHG and Family Size (N = 149)**

| Family Size | Below Rs.10000 | Rs.10000 – 20000 | Rs.20000 – 30000 | Rs.30000 – 40000 | Above Rs.40000 | Total | Mann-Whitney Test | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Sum of Ranks | U Value |
| Up to 5 members | 16 (19.5) | 19 (23.2) | 24 (29.3) | 15 (18.3) | 8 (9.8) | 82 (100.0) | 5932.0 | 2529[NS] (Z=-0.85) |
| Above 5 members | 10 (14.9) | 17 (25.4) | 16 (23.9) | 15 (22.4) | 9 (13.4) | 67 (100.0) | 5243.0 | |
| Total | 26 | 36 | 40 | 30 | 17 | 149 | | |

NS – Not Significant

The $H_0^1$ is rejected (H=16.42 > p < 0.01), hence it is concluded that the result supports for significant relationship between size of loan availed and educational status. Hence, $H_a^1$ is formulated as "Size of loan availed form SHG is not independent of educational status of SHG members".

The results of availing of loan from SHG by SC/ST, MBC and other communities are shown in table 4. It is apparent that availing of loan is independent of the community as supported by H value for the difference in number of cases across three different caste classes is insignificant. The existing difference in percentage of cases against various loan levels across three different community groups is simply due to chance.

The results pertaining to relationship between loans availed and family size are shown in table 5. It can be seen that 29.3 per cent of cases, which belong to family size up to 5 members availed loan ranging from Rs.20000 to Rs.30000, 23.9 per cent of cases which belong to family size of below 5

members. The scenario is reverse in the case of loan availed ranging from Rs.30000 to Rs.40000.

### Chart – D
**Relationship between Loan Availed from SHG and Family Size (N = 149)**



*Source:* Survey data

### Table 6
**Relationship between Loan Availed from SHG and Family Type (N = 149)**

| Family Type | Below Rs.10000 | Rs.10000 – 20000 | Rs.20000 – 30000 | Rs.30000 – 40000 | Above Rs.40000 | Total | Mann-Whitney Test | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Sum of Ranks | U Value |
| Nuclear | 23 (17.7) | 33 (25.4) | 33 (25.4) | 29 (22.3) | 12 (9.2) | 130 (100.0) | 9601.0 | 1086[NS] (Z=-0.87) |
| Joint | 3 (15.8) | 3 (15.8) | 7 (36.8) | 1 (5.3) | 5 (26.3) | 19 (100.0) | 1574.0 | |

*Source:* Survey data; NS – Not Significant

There is a small difference in percentage in cases with regard to other loan levels across groups. However, the U value obtained from Mann-Whitney test, 2529 is insignificant (Z = -0.85 is very trivial), hence it may be concluded that the difference between these two family size groups in respect of availing of loan can be attributed to change, in turn availing of loan from SHG is independent of the family size of the SHG members.

According to table 6, the difference in percentage of cases between nuclear and joint family groups in respect of loan availed from SHG is not at high level, as the U value (1086) obtained from Mann-Whitney test is not significant at required level (Z = -0.87). Therefore, the loan availed from SHG is not dependent on family type of the SHG members.

**Chart – E**

**Relationship between Loan Availed from SHG and Family Type (N = 149)**
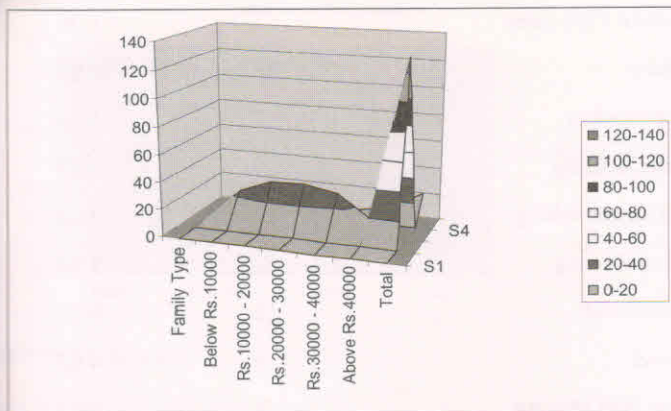


*Source:* Survey data

Table 7 reveals the results of relationship between respondent groups by family income and loan availed from SHG. As per the table 7, 37.0 per cent each of the respondent group with family income of up to Rs.3500 per month has availed loan below Rs.10000 and ranging from Rs.10000-20000, whereas 30.5 per cent, 28.4 per cent and 17.9 per cent of the respondents respectively with income above Rs.3500 have availed loan ranging from Rs.20000 to Rs.30000; Rs.30000 to Rs.40000; and above Rs.40000 respectively. The difference in availing of loan between the two income groups differ significantly as U value, 935 with Z value of 6.6 is significant at 1 per cent level. So, it is inferred that availing of loan from SHG is significantly influenced by family income of SHG members.

$H_0^2$ "Availing of loan from SHG is independent of income of the SHG members".

The $H_0^2$ is rejected (U = 935 > p < 0.01; Z = 6.6), hence it is concluded that the result supports for significant relationship between size of loan availed and family income. Hence, $H_a^2$ is formulated as "Size of loan availed from SHG is dependent on family income of SHG members".

Table 8 shows that percentage of cases among groups with a responsible position in SHG, who have availed loan ranging from Rs.20000 to Rs.30000 (40 per cent) and above Rs.40000 (33.3 per cent), is higher than that of those in the said group without any position in the SHG. On the other hand, availing of loan below Rs.10000 (19.4 per cent), between Rs.10000 to Rs.20000 (24.6 per cent) and Rs.30000 to Rs.40000 (25.4 per cent) is found to be with more number of ordinary members (without any position). Further, the difference between these two groups by "role" in the organization is significant at 5 per cent level (U Value = 679, Z = -2.11, p < 0.05), which reveals the fact that the loan availed from SHG is significantly depending upon the role and status of the members in SHG.

**Chart – F**

**Relationship between Loan Availed from SHG and Family Income (N = 149)**



*Source:* Survey data

$H_0^3$ "Availing of loan from SHG is independent of role as well as status of the SHG members".

The $H_0^3$ is rejected (U = 679 > p < 0.01; Z = 2.11), hence it is concluded that the result supports for significant relationship between size of loan availed and role as well as status of SHG members. Hence, Ha3 is formulated as "Size of loan availed form SHG is dependent on role as well as status of SHG members".

**Table 7**

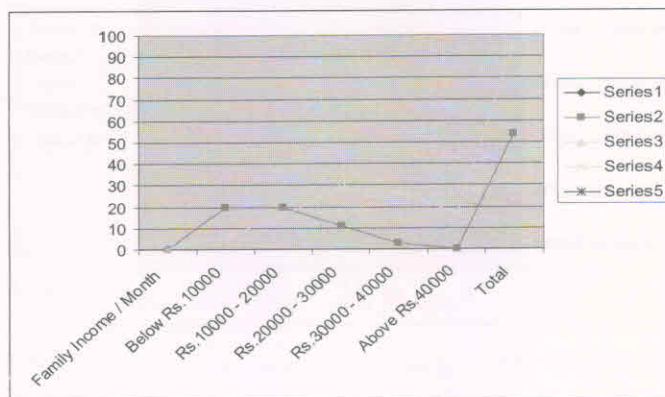**Relationship between Loan Availed from SHG and Family Income (N = 149)**

| Family Income / Month | Below Rs.10000 | Rs.10000 - 20000 | Rs.20000 - 30000 | Rs.30000 - 40000 | Above Rs.40000 | Total | Mann-Whitney Test | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Sum of Ranks | *U* Value |
| Up to Rs.3500 | 20 (37.0) | 20 (37.0) | 11 (20.4) | 3 (5.6) | 0 (0.0) | 54 (100.0) | 2420.0 | 935*** (Z=-6.60) |
| Above Rs.3500 | 6 (6.3) | 16 (16.8) | 29 (30.5) | 27 (28.4) | 17 (17.9) | 95 (100.0) | 8755.0 | |

***Significant at 1per cent level

**Table 8**

**Relationship between Loan Availed from SHG and Status of Members in SHG (N = 149)**

| Member Status | Below Rs.10000 | Rs.10000 - 20000 | Rs.20000 - 30000 | Rs.30000 - 40000 | Above Rs.40000 | Total | Mann-Whitney Test | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Sum of Ranks | *U* Value |
| Without position | 26 (19.4) | 33 (24.6) | 34 (25.4) | 29 (21.6) | 12 (9.0) | 134 (100.0) | 9724.0 | 679** (Z=-2.11) |
| With Position | 0 (0.0) | 3 (20.0) | 6 (40.0) | 1 (6.7) | 5 (33.3) | 15 (100.0) | 1451.0 | |

**Significant at 5per cent level

The respondents are distributed based on the purpose of loan availed from SHG and the results are shown in table 9. The analysis reveals that availing of loan for dairy purpose (cow rearing) is found with 15 out of 149 members (10.07 per cent), followed by 8.05 per cent of the SHG members for making handicraft items. 6.71 per cent of the SHG members are seen to have availed the loan for marriage like functions in their families, while 6.04 per cent of the members have availed the loan for improving the facilities of the existing business.

**Chart – F**

**Relationship between Loan Availed from SHG and Status of Members in SHG (N = 149)**
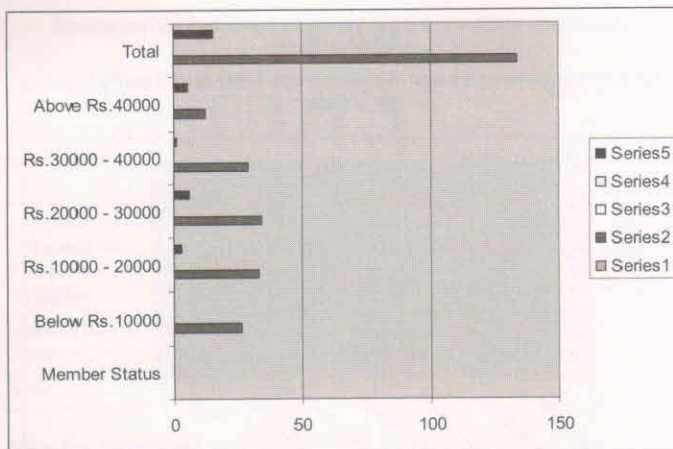


*Source:* Survey data

The analysis further reveals that 5.37 per cent of the members have availed loan for running tailoring shops, while 4.03 per cent each have used the loan for coconut vending, garments selling, start hotel, petty shops and vegetable shops. Five out of 149 members have used the loan for their children's education, whereas five members have used the loan amount for pickle making. In remaining 49 out of 149 members, 41 members have used the loan for various developmental purposes (buying auto / tempo, fish vending, vadavam (dried) making, vathal (dried) making, appalam (papad) making, maligai (stores) shop, mushroom vending, phenol making, soap making, colour fish sales, embroidery work, goat rearing, rice sales, soup shop, toys making, vathi making, jute bag making, masala making).

**Table 9**

**Purpose of Availing Loan from Self–Help Group (N = 149)**

| Purpose of Loan | Number of Respondents | Per cent to Total |
|---|---|---|
| Education | 5 | 3.36 |
| Business | 9 | 6.04 |
| Marriage | 10 | 6.71 |
| Appalam Making | 3 | 2.01 |

| | Number of Respondents | Per cent to Total |
|---|---|---|
| Buying Auto/Tempo | 4 | 2.68 |
| Coconut Vending | 6 | 4.03 |
| Colour Fish Sales | 2 | 1.34 |
| Dairy | 15 | 10.07 |
| Embroidery | 2 | 1.34 |
| Fish Vending | 4 | 2.68 |
| Garments selling | 6 | 4.03 |
| Goat Rearing | 2 | 1.34 |
| Handicraft | 12 | 8.05 |
| Hotel | 6 | 4.03 |
| Jute Bag Making | 1 | 0.67 |
| Maligai shop | 3 | 2.01 |
| Masala making | 1 | 0.67 |
| Multipurpose | 2 | 1.34 |
| Mushroom Vending | 3 | 2.01 |
| Petti shop | 6 | 4.03 |
| Fhenol Making | 3 | 2.01 |
| Pickle Making | 5 | 3.36 |
| Rice Sales | 2 | 1.34 |
| Soap making | 3 | 2.01 |
| Soup shop | 2 | 1.34 |
| Tailoring | 8 | 5.37 |
| Toys Making | 2 | 1.34 |
| Vadavam Making | 4 | 2.68 |
| Vathal Making | 4 | 2.68 |
| Vathi Making | 2 | 1.34 |
| Vegetable shop | 6 | 4.03 |
| Non business runner | 6 | 4.03 |
| **Total** | **149** | **99.97** |

*Source:* Primary Data

**Table 10**

**Loan Repayment Pattern (N = 149)**

| Loan Repayment Pattern | Number of Respondents | Per cent to Total |
|---|---|---|
| Daily | 13 | 8.72 |
| Weekly | 8 | 5.37 |
| Monthly | 128 | 85.91 |
| **Total** | **149** | **98.00** |

**Chart – G**

**Loan Repayment Pattern (N = 149)**
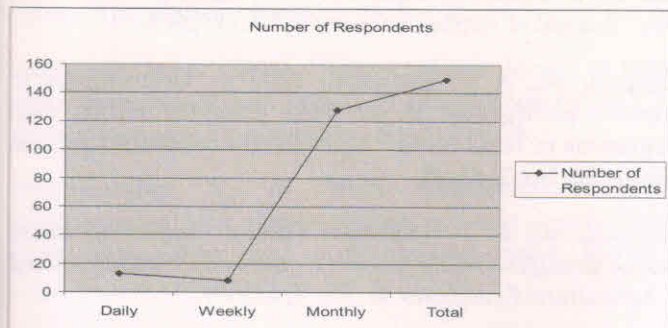


*Source:* Survey data

While 4 members have used the loan for the purposes they did not want to reveal them, 2 members have used it for "multi-purpose", which fact reveals that majority of SHG members have used the loan properly for obvious developmental purposes.

From the table 10, it can be seen that loan repayment pattern is monthly for 85.91 per cent of the SHG members. However, repaying loan on daily and weekly basis is also seen with 8.72 per cent (13 out of 149) and 5.37 per cent (8 out of 149) of SHG members respectively, which fact reveals that the repayment of loan is on monthly basis for majority of SHG members (see table 11).

**Chart - G**

**Loan Lending Banks for SHG Members (N = 149)**
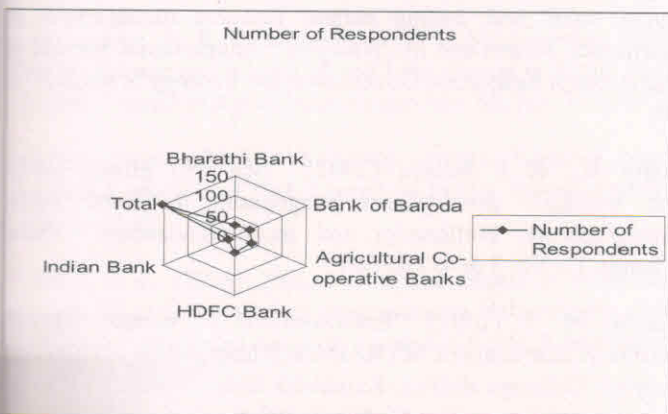


*Source:* Survey data

**Table 11**

**Loan Lending Banks for SHG Members (N = 149)**

| Name of the Bank | Number of Respondents | Per cent to Total |
|---|---|---|
| Bharathi Bank | 27 | 18.12 |
| Bank of Baroda | 31 | 20.81 |
| Agricultural Co-operative Banks | 35 | 23.49 |
| HDFC Bank | 41 | 27.52 |
| Indian Bank | 15 | 10.07 |
| **Total** | **149** | **100.00** |

*Source:* Primary Data.

**Table 12**

**Comparison of Lending Rates by Banks (N = 149)**

| Name of the Banks | Interest Rates (per cent) | | | | Total | Kruskal-Wallis ANOVA | |
|---|---|---|---|---|---|---|---|
| | 1.0 | 1.5 | 2.0 | 3.0 | | Sum of Ranks | H Value |
| Bharathi | 4 (14.8) | 4 (14.8) | 17 (63.0) | 2 (7.4) | 27 (100.0) | 2033.0 | |
| Bank of Baroda | 8 (25.8) | 5 (16.1) | 12 (38.7) | 6 (19.4) | 31 (100.0) | 2220.0 | 1.78[NS] |
| Agricultural Co-operative Banks | 6 (17.1) | 7 (20.0) | 18 (51.4) | 4 (11.4) | 35 (100.0) | 2545.0 | |
| HDFC Bank | 5 (12.2) | 10 (24.4) | 15 (36.6) | 11 (26.8) | 41 (100.0) | 3345.5 | |
| Indian Bank | 1 (6.7) | 5 (33.3) | 9 (60.0) | 0 (0.0) | 15 (100.0) | 1031.5 | |
| Total | 24 | 31 | 71 | 23 | 149 | | |

*Source:* Primary Data; NS – Not Significant

**Chart - G**

**Comparison of Lending Rates by Banks (N = 149)**
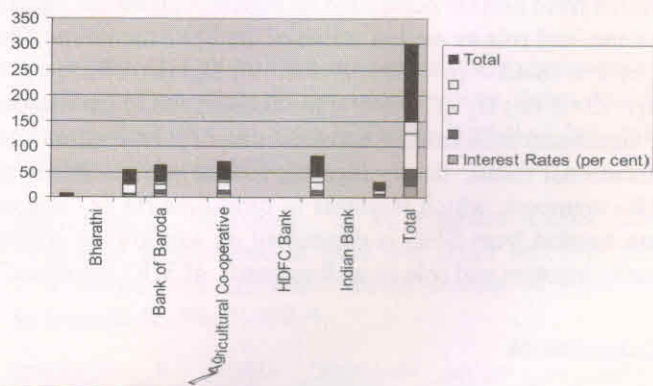
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any remarkable difference in lending rate, and the results of the analysis are shown in table 12. It can be seen from the table that the Bharthi bank has lent loan to 63 per cent of the SHG members at two per cent rate of interest. The Indian bank has also charged two per cent interest rate for 60 per cent of SHG member customers.

On the other hand, Bank of Baroda charges just one per cent for its 25.8 per cent of the SHG member customers, while the rate of interest is three per cent for 26.8 per cent of SHG member customers who availed loan from HDFC bank. However, the difference in the rate of interest across banks does not differ significantly as H value obtained from Kruskal-Wallis ANOVA test, 1.78 is insignificant.

## Concluding Remarks

Availing of loan from SHG is independent of the community of the members and it is not associated with family size of the SHG members and is found that the loan amount availed from SHG is not related to family type of the SHG members, however, it is significantly influenced by monthly income of SHG members' family and further it is found that loan amount availed from SHG is significantly depending upon the role/status of the members (with position and without position) in SHG.

The loan has been availed for different purposes, but the loan for the purpose of cow rearing is found with more number of members followed by for making handicrafts items. The repayment of loan is on monthly basis for majority of SHG members; the rate of interest on loan ranges from 1.5 per cent to two per cent for most of the SHG members. Size of loan availed from SHG is dependent on educational status; family income; and role as well as status of the SHG members. The $H_0^1$ (H = 16.42 > p < 0.01; Z = 6.60); $H_0^2$ (U = 935 > p < 0.01; Z = 2.66) $H_0^3$ (U = 679 > p < 0.01; Z = 2.11) in respect of significant relationship between size of loan availed and educational status; family income; role as well as status of SHG members, which warrants to formulate Ha as "size of loan availed from SHG is dependent on educational status; family income; and role as well as status of SHG members".

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