DEMOGRAPHIC INFLUENCE AND ROLE OF MICROFINANCE TOWARDS FAMILIAL EMPOWERMENT OF WOMEN – AN EMPIRICAL STUDY

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Abstract: Empowerment of women is a contemporary issue to bring development in the society. Empowering women is multidimensional in nature. Familial empowerment of women is one of the critical dimensions besides other essential dimensions of women empowerment like economic, personal empowerment, etc. This empirical study was conducted to quantify the level of familial empowerment of women and to identify whether engagement in microfinance activities plays a role towards her empowerment. This study found that engagement in microfinance activities has a positive impact on the achievement of familial empowerment among women. Highly educated husbands are found encouraging their wives to be involved in microfinance activities in the study area. It is also revealed in the study that when women are undertaking entrepreneurial activities, they are getting keen interest in joining microfinance activities. Therefore, the necessary policy measures need to be implemented for promoting self-employment, entrepreneurial activities in the rural economy.

JEL Codes: C3, I38, J16

Keywords: Microfinance, Familial Empowerment, Empowerment Index, Discriminant Analysis

1. INTRODUCTION

Familial empowerment refers to a woman's decision-making ability which would result in a significant gain for her and also to her family members. Still, in India, women are not being able to reach the highest decision making roles in the home due to the persistence of gender inequalities and biased

perceptions towards women (Thomas, 2013; Jha & Nagar, 2015). Being economically empowered does not always assure that women will be protected from domestic violence and domestic abuse. It is even found (Siddiqui, 2013; Atkinson *et al.*, 2005) that there is an increasing trend of domestic violence in a few families when the woman is working outside. To find an effective intervention for women empowerment, one has to look into various dimensions out of which familial empowerment plays an important role. In the current era, it is essential to recognize that women are an energetic and dynamic workforce that could participate not only in their familial decision making but also can contribute to the destiny of the society. Women in rural areas are relatively powerless with no control over resources and little decision making. Often in Indian families, decisions are taken by the male members and imposed on women. The parameters like the age of the women, type of family, family size, education level of the women, age gap between husband and wife, caste, economic independence affect the involvement of women in the decision-making process in the family.

In India, there are shreds of evidence of Self Help Groups & Joint Liability Groups working towards the achievement of women empowerment (Kumar, 2006). Microfinance has received an extensive recognition as an effective strategy for poverty reduction and for economic empowerment (Muthukumaresan & Hameed, 2019). Mainly the economical attributes of the women empowerment level has been assessed in most of the studies conducted to analyze the impact of engagement in microfinance activities on women's empowerment level. There are lack of studies which can help us to understand if engagement in microfinance activities can help women to empower themselves in other dimensions as well, like promoting their recognition in the family, enhancing their communication skills, a greater role in decision-making, higher self-efficacy, and self-esteem etc.

2. OBJECTIVES OF THE STUDY

The present study is conducted to understand whether microfinance is helping women to achieve familial empowerment or not. This study will also help to identify the factors influencing women to be engaged in microfinance activities. Therefore, the detail objectives of the present study can be stated as:

i) To assess the extent of Familial Empowerment of Women in South-24 Parganas district of West Bengal.

ii) To inspect whether microfinance is helping women to achieve familial empowerment.

iii) To identify demographic variables that encourages an individual to be engaged in microfinance activities.

3. METHODOLOGY

The methodology of this study starts by arranging the procedure for collecting substantially strong and reliable data. The details of the procedures that are followed during the investigation for studying the research problem and for collecting and analysing data are discussed below:

3.1. Sample

The sample consists of 414 women, ranged between 18 to 60 years old with $Mean_{Age}$=37 years and SD= 9 years). The respondents are selected from South-24 Parganas district of West Bengal, one of the most densely populated districts of India (Census, 2011), having the highest percentage of the rural population and the highest percentage of the female population of the state (Census, 2011). Among the five sub-divisions of South 24 Parganas district, only three sub-divisions have both municipalities and gram panchayats which are selected for the study in order to maintain the uniformity in terms of the socio-economic status of the sample collected. Three blocks are randomly selected from each of the three sub-divisions. Thus, in total, nine blocks are selected for the study, i.e., Baruipur, Bishnupur-I, Budge-Budge, Diamond Harbour, Jaynagar I, Jaynagar II, Mathurapur I, Mathurapur II and Thakurpukur Mahestala Block. Now, from the selected nine blocks, the researcher used the Stratified random sampling technique to select respondents belonging to different categories, i.e., women engaged in microfinance activities and women not-engaged in microfinance activities.

3.2. Empirical Data & Measure

The present study is based on a field survey conducted in the above-mentioned study area. A well-structured questionnaire with both closed and open-ended questions is used for collecting primary data. Primary information were collected from respondents through face-to-face interviews, physical observations, and in some cases, conversations with their family members are also conducted. Various statistical tools of Multi-variant analysis are used through well-established statistical software like SPSS 21 to accomplish the objectives of this study.

3.2.1. Familial Empowerment Index

Several studies (Sultana & Hossen 2013; Tuladhar *et al.* 2013; Weber & Ahmad, 2014; Ganle *et al.*, 2015; Samarakoon & Parinduri, 2015) have considered the ability to participate and providing views regarding decisions taken on different family matters related to children, availing

health services, women's own life as the key factors for analyzing the familial empowerment level achieved by the respondents.

In the present study, the Familial empowerment Index of the respondent has been constructed by using the following eight variables, which reflects her empowerment at the household level.

X_1 - Decision regarding Children's level of Education

X_2 - Decision regarding having another child

X_3 - Decision regarding when and where to go for Vacation

X_4 - Purchasing Decision

X_5 - Financial decision making

X_6 - Birth spacing between 1st and 2nd child

X_7 - Family planning practices

X_8 - Decision making regarding family income distribution for household expenditures

Initially, the collected data are normalized by using the following formula:

$$NVir = 1 - \left[\frac{\{Best\,Xi - Observed\,Xir\}}{\{Best\,Xi - Worst\,Xi\}} \right] \tag{1}$$

Where,

X_{ir} = i^{th} variable for the rth respondent

NV_{ir} = Normalized value of the ith variable for the rth respondent

For computing the Familial Empowerment Index, the present researchers followed the method as used by the National University of Educational Planning and Administration (NUEPA) for computing Education Development Index (NUEPA, 2014).

Categorical Principal Component Analysis (CatPCA) is then applied to decide the factor loading and weights. Next, the weights are multiplied by the normalized value of each variable. Then the sum of each multiplication is divided by the total weights to obtain the Familial Empowerment Index of each individual.

Here is the formula used to determine the index:

$$FEI = \frac{\Sigma_{i=1}^{8} NV_{ir} \left\{ \Sigma_{j=1}^{8} ||Lij||.E_j \right\}}{\Sigma_{i=1}^{8} \left\{ \Sigma_{i=1}^{8} ||Lij||.Ej \right\}} \tag{2}$$

Where,

FEI is the Familial Empowerment Index

NVir = Normalized value of the ith variable for the rth respondent

L_{ij} is the factor loading value of the ith variable for the jth component

E_j is the Eigenvalue of the jth component

In the study area, the respondents having familial empowerment index greater than 0.50 are regarded as empowered and otherwise not. Now, to understand the familial empowerment level achieved by the respondents, the sample is segregated into two groups considering whether the respondent is engaged in microfinance activity or not. Then it is checked whether there is a significant difference between the familial empowerment level achieved by an individual engaged in microfinance activities and not-engaged in microfinance activities using the independent sample t-test. Following is the null hypothesis tested,

$$H_{01:}\, \mu_{1.1} = \mu_{1.2}$$

$\mu_{1.1}$= Familial empowerment level of the women not-engaged in microfinance activities

$\mu_{1.2}$ = Familial empowerment level of the women engaged in microfinance activities

3.2.2. Identification of Discriminating Factors

From the selected women, two groups are classified as respondents engaged in microfinance activities or not. Information provided by the respondents regarding their education, income, expenditure, lifestyle, etc. are extracted from the data collected. Discriminant analysis technique is then applied to identify a set of independent variables that can discriminate the groups. In this analysis, the binary dependent variable in the model is whether an individual is engaged in microfinance activities or not, and twelve related demographic variables are used as exploratory variables. The related demographic variables used are as follows:

X_1- Age

X_2- Respondent's completed years of education

X_3- Any illiterate person in the family (1.No 2.Yes)

X_4- Family size of the respondent

X_5- Husband's completed year of education

X_6- Number of children

X_7- Head of the family (1.Other Family Member 2. Husband 3.Self)

X_8- Age at marriage

X_9- Respondent's Occupation (1. Not employed 2. Unskilled worker 3.Skilled worker 4.Self employed)

X_{10}- Husband's Occupation (1. Not employed 2. Unskilled worker 3.Skilled worker 4.Self employed)

X_{11}- Religion of the respondent (1.Hindu 2.Muslim 3.Other)

X_{12}- Cast of the respondent (1.General 2.OBC 3.SC)

Thus, the Discriminant model for this study is:

$$D_i = C_0 + \Sigma_{i=1}^{12} \beta_i X_i \qquad (3)$$

Where,

Di= Dichotomous Dependent Variable: {0= Not-Engaged in microfinance activity

1= Engaged in microfinance activity}

C_0= Constant

β_i s are Discriminant coefficients and

X_i s are related to demographic variables

The data of all these 12 variables along with the dependent binary variable are collected from all 414 women respondents involved in microfinance activities and inserted as input in SPSS for the analysis.

4. RESULTS AND DISCUSSIONS

Out of the 414 respondents considered in the study, 177 respondents are not-engaged in microfinance activities. These respondents are either a wage earner or an entrepreneur or a housewife. It is observed that the highest and the lowest familial empowerment index achieved by this group of 177 respondents is 0.86 and 0.17, respectively. For better understanding, when we checked the mean of the familial empowerment index of these 177 respondents, it was found that 71 respondents, i.e., 40% of the respondents had familial empowerment index less than 0.50 and so considered non-empowered, while 106 respondents, i.e., 60%, are having familial empowerment index, i.e., more than or equal to 0.50 so considered empowered.

The remaining 237 respondents within the total sample collected are engaged in various microfinance activities. For this group of the sample, the highest familial empowerment index achieved is 0.96, which is almost close to 1, whereas the lowest is 0.23. A further investigation in this direction clarified that 89%, i.e., 212 respondents in this group of the sample are empowered at the familial front, i.e., the familial empowerment index is more than or equal to 0.50 and only 11%, i.e., 25 respondents are not empowered at familial front as the familial empowerment index is less than 0.50.

Table 1: Familial Empowerment Index among the different groups in the sample

Groups	N	Mean	Std. Deviation	t-test for Equality of means (Equal variances assumed)		
				T	df	Sig. (2-tailed)
Respondents not-engaged in microfinance activities	177	0.5452	0.1498	-8.831	412	0.000
Respondents engaged in microfinance activities	237	0.6640	0.1235			

In Table 1, it is observed that the mean value of the FEI of the respondents engaged in microfinance activities is higher (0.6640) than women not-engaged in microfinance activities (0.5452), at 5% level of significance. So, women engaged in microfinance activities are significantly familial empowered than women not-engaged in microfinance activities (t= -8.831).

Therefore, it can be concluded that engagement in microfinance activity actually helps the individual to be empowered at the familial front. So, women engaged in microfinance activities are significantly more empowered than women not-engaged in microfinance activities.

Now, the discriminant analysis is used to determine the variables that influence the respondent to be engaged in microfinance activities.

Table 2: Eigenvalues and Canonical Correlation from Discriminant analysis between women engaged and not-engaged in microfinance activities

Eigen values

Function	Eigen value	% of Variance	Cumulative %	Canonical Correlation
1	0.640	100.0	100.0	0.625

Source: SPSS Output

As we have one discriminating function, all explained variation is contributed by the function. In Table 2, the canonical correlation associated with the function is 0.625 (>0.5), which means the model explains 62.5% of the variation in the dependent variable.

Table 3: Wilks' Lambda and its significance for the analysis between women engaged and not-engaged in microfinance activities

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	0.610	200.880	12	0.000

Source: SPSS Output

The above Table 3 shows that the group means differ as Wilk's Lambda is 0.610 and p-value (0.000) <0.01. So, the model has a greater discriminating ability. Therefore, it can be concluded that the model does better than chance in separating the two groups, i.e., respondents not-engaged in microfinance activities and respondents engaged in microfinance activities.

Table 4: Structure Matrix of Discriminant analysis between Empowered and Non- Empowered women

Structure Matrix

	Variables	Pearson coefficients
X_7	Head of the family	0.621
X_9	Respondent's Occupation	0.560
X_{12}	Cast of the respondent	0.496
X_5	Husband's completed year of education	0.331
X_{11}	Religion of the respondent	0.142
X_{10}	Husband's Occupation	-0.115
X_4	Family size of the respondent	0.100
X_8	Age at marriage	-0.075
X_1	Age	-0.024
X_3	Any Illiterate person in the family	0.017
X_2	Respondent's completed years of education	0.015
X_6	Number of children	0.013

Source: SPSS Output

The structure matrix Table 4 shows the correlations of each variable with the discriminant function. These Pearson coefficients are structure coefficients or discriminant loadings. From Table 4, important and less important variables are identified by considering 0.30 as the cut-off Pearson coefficient. Here, Head of the family, Respondent's Occupation, Cast of the Respondent, and Husband's completed year of education as the highest and positive correlated variable with the discriminating function. On the other hand, the respondent's completed year of education and the number of children of the respondent have the least correlations with the discriminating function and suggest that these are not associated with whether the respondent is engaged in microfinance activities or not. All other predictors were not to be found significant.

The results have given us an insight that when the respondent herself heads a family, then it has positive discriminating power. Furthermore, respondents who are entrepreneurs and belonging to schedule cast are found to be having positive discriminating power. These variables show that when an individual is heading the family, she is aware of the financial crisis of the family. She prefers to be engaged in microfinance activities to

gain economic prosperity for her family through loans and credit, to secure the family from the crisis. Educated husbands are found encouraging their wives to be engaged in microfinance activities.

Table 5: Hit Ratio of Discriminant analysis between women engaged and not-engaged in microfinance activities

			Predicted Group Membership		Total
	Engaged or Not-engaged in microfinance		*Not-engaged in microfinance*	*Engaged in microfinance*	
Original	Count	Not-engaged in microfinance	141	36	177
		Engaged in microfinance	14	193	237
	%	Not-engaged in microfinance	79.70	20.30	100
		Engaged in microfinance	18.60	81.40	100
Cross-validated	Count	Not-engaged in microfinance	139	38	177
		Engaged in microfinance	46	191	237
	%	Not-engaged in microfinance	78.50	21.50	100
		Engaged in microfinance	19.40	80.60	100

Source: SPSS Output

In Table 5, it is observed that 80.7% of the original cases are correctly classified, i.e., 334 of the 414 cases are classified correctly, and 79.7% of cross-validated grouped, i.e., 330 of the 414 cases are correctly classified. The accuracy of the model may hence be considered.

5. CONCLUSION

The achievement of the familial empowerment level is remarkable in the study area. Women engaged in microfinance activities are seen to be more empowered in the familial front compared to women not-engaged in microfinance activities. Additionally, involvement in microfinance activities is helping them to achieve high familial empowerment as it is helping them to move out from the four corners of the house and communicate with other peer members in the group. So, their decision-making capability, outlook, and confidence increase in due course. The new ideas and outlook of women are hence being given importance in the family leading to the recognition of the individual in the family. The engagement in microfinance activities is also making the respondent involved in various financial activities, so the family members also involve them in the management of household finance. Therefore, it can be concluded that engagement in microfinance activities is an effective approach for an individual to achieve a high familial empowerment level.

Discriminant Analysis helped to understand that the decision-maker in the family has an important role to play towards the involvement of the

respondent in microfinance activities. If the respondent herself heads the family, then that increases the chances for her to be engaged in microfinance activities. The respondents belonging to Schedule cast are found to be more concerned to engage in microfinance activities for uplifting their family by getting out of poverty; enhance their communication skills so that they could provide a better future to their children. Educated husbands are found to be encouraging their wives to be engaged in microfinance activity. The study also revealed that the profession of the respondent is also playing an equal role in the engagement of the respondent in microfinance activity. As women entrepreneurs are involved in microfinance activities, it can be recommended that the government should try to intervene more for upgrading the status of women in the family. To encourage more women to undertake an entrepreneurial activity, professional training should be provided to members engaged or willing to engage in microfinance activities. Moreover, for promoting and encouraging women entrepreneurship in rural areas, it is necessary to allow women to take their own decision independently and act on their livelihoods. There is also a need to have frequent meetings and dialogues with the family members of the borrowers of the loan to utilize the amount for which it is borrowed.

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