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Measurement Of Women Empowerment: An Alternative Approach

Sujoy Bhattacharya

Deputy Project Director (Accounts) District Rural Development Cell, North 24 Parganas ,National Rural Livelihood Mission Kolkata, India batas_sujoy@yahoo.co.in

Abstract:

It has been now an admitted proposition that the societies who discriminate on basis of gender, pay cost of greater poverty, slower economic growth, weaker governance and a lower living standard of their people. Thus the empowerment of women is a vital agenda of development. Government of India has adopted the poverty alleviation and women empowerment program of World Bank with microfinance to the women self help groups (SHG) at its core.

It has been observed that all earlier studies on measurement of women empowerment were based on individual woman or household as an unit. Thus, these studies has failed to recognize the fact that in developing countries like India, Bangladesh etc., the position of rural women/household in isolation, is so vulnerable that it is not possible for an individual woman/household to get empowerment. Women empowerment cannot be achieved without collective effort ensuring group dynamics of SHGs. This study, thus, has taken SHG as unit.

One of the objective of this study is to examine the microcredit program on women empowerment. Towards this end, regression analysis based on primary data of a sample of 100 poor women SHGs (each group consists of 8-12 members) in two districts of state of West Bengal, India.

Three fundamental dimensions are considered to measure Empowerment Index. These are: (i) economic empowerment of the SHGs (ii) group dynamics (iii) capacity of loan repayment of the groups. Empowerment index is regressed against explanatory variables, as well as, other control variables. Our findings show that microcredit program should not be an uniform strategy in all the areas. Following an uniform microcredit strategy may lead to negative impact in some areas.

It can be concluded that impact of microcredit is significant, but in order to have a positive impact on women empowerment, different strategies should be introduced in different areas.

Introduction:

Women in India are facing credit constraint, have restricted access to wage labour market and have a little bargaining and / or in society. The World Bank identifies four key elements of



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empowerment to draft institutional reforms: access to information; inclusion and participation, accountability; and local organizational capacity. The concept of information of Self Help Groups (SHG) amongst the poorest of the poor (especially amongst the women), participatory development aiming at poverty are the vision of the world today. This vision reflects gender empowerment, social empowerment, and economic empowerment. The core strong desire and put also innate capabilities to come out of poverty. National Rural Livelihood Mission (NRLM) which is an anti-poverty program in the outlook of World Bank and will be financed partly or wholly by the World Bank in the various states of India.

Mobilization of poor to form their 'own institutions' (SHG, sub-cluster, cluster etc) is the most important prerequisite and the core investment for large scale poverty reduction. All poor households (women) would be organized under NRLM into aggregate institutions of the poor. Building and sustaining institutions of the poor at various levels would be for collective action, greater solidarity, bargaining power, economics of scale and larger linkage. A majority of microfinance programmes including NRLM target women with the explicit goal of empowering them. Some argue that women are amongst the poorest and the most vulnerable of the underprivileged and thus helping them should be a priority.

This paper analyzes the issue of women empowerment by addressing two key questions. First, is there any deficiencies of existing criteria of women empowerment and if so, determination of alternative criteria. Second, what is the impact of microfinance and other variables on women empowerment? We have investigated these questions by performing regression analysis on primary data collected from a sample of 100 SHGs in two districts of state of West Bengal, India.

A Brief Survey Of Earlier Literature On Women Empowerment:

Amartya Sen. (1990) comes to conclusion that for measurement purpose one should focus on certain universally valued functioning like proper nourishment, good health and shelter, which are related to basic fundamentals of survival. Sen. asserts that if there are systematic gender differences in these very basic functioning achievements, they can be taken as an evidence of inequalities in underlying capabilities rather than differences in preferences.

Annas (1993) explains that two actual norms for human life exists globally : in no society is it different to shape of ones life and what one can make of it, whether one is a man or a woman. According to her, in a traditional society norms for lives of men and women are enforced strongly and there exists actual division of activities and ways of living.

In feminist view, empowerment goes beyond economic betterment and well-being, to strategic gender interest. Mayoux (1998) suggests that empowerment is a process of internal change, or power within, augmentation of capabilities, or power to, and collective mobilization of women, and when possible men, or power with, to the purpose of questioning and changing the



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subordination connected with gender, or power over. Kabeer (2001) asserts that empowerment signifies increased participation in decision making and it is this process through which people feel themselves to be capable of making decisions and the right to do so. Personal empowerment can lead to changes in existing institutions and norms. On measuring empowerment, Kabeer (1999) highlights various methodological points about some of the key elements, Resources, agency achievement. Kaber (2005) defines empowerment as the process by which women take control and ownership of their lives through expansion of their choice. According to Krishna (2003), empowerment means increasing the capacity of individuals or groups into desired actions and outcomes. Social capital, on the other hand, features social organization such as networks, norms and inter-personal trust that facilitate co-ordination and co-operation for mutual benefit. It is by nature a stock and Community Driven Development (CDD) is a methodology of undertaking development enterprise that gives control of decision and resources to community groups. Grootaert (2003) points that building social capital facilities empowerment. Social capital and empowerment are multilevel concepts and facilitate the link to poverty reduction. In the past the repayment rate was used as an indicator of empowerment. However many researchers have expressed concern about this, pointing out that women may replay loans through taking loans elsewhere and get into serious indebtness. In some cases men may control loans, whereas women might be mediating between male family members and MFI. Therefore if empowerments are simply equated with a role in decision-making and 'control' over household resources, then greater care needs to be taken in selecting the decision which indicates levels of empowerment.

Pitt and Khandker (1995) investigated the decision-making outcomes according to the gender of the loanee to infer the gender differences within the household. However it is difficult to interpret their results that state that loans to men were likely to have a greater fertility – reducing effect than loans to women.

Hulme and Moseley (1996), suggest that focusing on repayment rates puts further pressure on the groups to execute those who are most in need of microfinance.

Goetz and Sengupta (1996) argue that if it is hypothesized that control over loan filled activity is in fact a critical control point in the process by which access to loans translates into a range of valued achievements, then 'marginal control' can serve as an indicator of empowerment.

The UNDP's Human Development Report of 995 introduced two new complementary indices: the Gender-related Development Index (GDI) and the gender Empowerment Measures (EEM). The GDI indicator measures the inequalities between men and women in terms of access to basic needs. GEM evaluated women's access to political and economic posts.

Bardhan (1999) points that these indices have limitations. Firstly the presence of large proportion of elected women members in the national parliament does not necessarily have significant real



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power. Secondly such a measure does not take into account the participation of women in the local political institutions and their visibility in other bodies of civil society.

Ackerly (1995) constructs an indicator, accounting knowledge, to measure the probability that the changes associated with empowerment intervene.

Goetz and Sengupta (1996) built an index of managerial Control in order to classify the barrowers into five categories ranging from co control (no knowledge of the use of the loan or no contribution in terms of labour to the financed activity) to full control of the use of the loans (full control over the entire productivity process, including marketing).

Hashemi, Schuler and Riley (1996) investigate the change in women empowerment with the help of an ethnographic study and quantitative survey.

Malhotra (2002) emphasis that even after identifying empowerment as a primary development goal, neither the World Bank nor any other major development agency has developed a rigorous method for measuring and tracking changes in levels empowerment.

Battiwala (1995) defines empowerment as control over material assets, economic recourses and ideology while Nessa, Ali and Abdul Hakim (2012) considers five dimensions of women empowerment (i) economic decision making (ii) household decision making (iii) freedom of movement (iv) ownership of property v)political and social awareness.

Selection And Rationale Of Selection Of Representative Districts And Samples:

In order to represent the overall picture of West Bengal,India, two representative districts are chosen / selected -(1) Purulia, the most backward district in WB & North 24 Parganas, the most developed District in W.B.

Rationale of selecting these two districts firstly based on composite index of backwardness (CIB) adopted by Ninth Finance Commission (NFC). This criterion, as compiled by NFC can be written in the form.





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If we apply this criterion to determine backwardness of districts within West Bengal, the criterion may be modified as:

$$CIB = \begin{pmatrix} SC/ST \text{ Pop of District X 100} + & Agl. \text{ Of District X 100} \\ All WB / All districts Sc/ST Pop & All WB / All districts agl \end{pmatrix} /$$

Where Agl stands for number of agricultural labours.

These two indicators, commission felt, would serve to reflect poverty and backwardness in a large.CIB for North 24 Parganas and Purulia in modified formulae as calculated are 68.32 and 32.69 respectively, whereas for the West Bengal as whole it is 54.83 and all India (25 states) is 45.51.

N. Sreedevi (1992) criticized the measure adopted by NFC on following ground - (i) it is not comprehensive measure of backwardness, (ii) there is double counting and overlapping of components and (iii) there is lack of proper standardization.

Some other indexes upheld the justification of selecting two districts. This has been shown in Table below –Table 1: Human Development and other indexes in two districts in West Bengal.

Districts	Human Development Index (HDI)		Gender Development Index (ADI)		
	Score	Rank	Score	Rank	
North 24 Pgs	0.66	3	0.55	5	
Purulia	0.45	16	0.40	16	

From the above analysis, it is clear that North 24 Parganas and Purulia exhibit two diverse developmental position/stage of West Bengal. One represents higher level within the State, whereas, other represents the lower level. Average of these two represents the near average of the State. Thus our selection is justified. 50 samples are chosen from each district to run the regression.



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Measurement Of Empowerment: An Alternative Approach

The empowerment of women is one of the vital issues of development, particularly in developing countries. It has been observed in our study that almost all the SHGs at present in West Bengal are women SHGs. Thus the question of empowerment depends on two things –

- 1) Number of families and / or women home has not come under the fold of SHG yet and the action plan to bring them under SHG.
- 2) To improve the functioning of the SHG and to determine the factors influencing the achievement of the SHG and hence empowerment; and to take action accordingly.

In this study instead of taking individual household as a unit, the SHGS have been taken as a unit. It has been observed that only group activities or group dynamics can ensure women empowerment rather than endeavor of individual women. In the light of this view, we may consider the following definition of empowerment along with those mentioned earlier –political & social awareness.

As explained earlier, in developing countries like India, Bangladesh etc. position of women and / or women in a rural household in isolation is so vulnerable that measurement of women empowerment by considering individual and / or household as a unit of completely unjustified, unwarranted. Women empowerment can be achieved by collective effort and will be increased only when a group dynamics of SHGs will be improved and financial, social position of the group become stronger. In this study, three fundamental dimensions is considered to measure women empowerment are - (i) economic empowerment (ii) group dynamics (iii) average loan repayment rate of groups. This study agrees with the view of Bardhan (1999) that the pressure of large portion of elected women members in National Parliament and / or local political institutions does not necessarily have significant real powers.

Economic empowerment is measured by real increment income of the SHG which is measures by nominal incremental income / price index. Group dynamics is measured by the average time taken for grading of a group and it is measured by $\sum \frac{\text{Grade Score / Time taken}}{\text{Number of Gradings}}$. Group dynamics to a large extent measures freedom of movement. Average loan repayment rate is measured by loan recovery ration which is $\frac{\text{Amount o loan recovered}}{\text{Total demand for recovery}} X$ 100. An outline of these three measures is given in Table-2 below.

Table –	2: D	Dimension	of	women	empo	werment	and	their	measureme	ent
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Sl. No.	Empowerment dimensions	Response or assign score	Measurement
1	Economic empowerment (EMWI)	Not applicable	Real incremental income = Nominal incremental income Price index



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2	Freedom of movement or Group dynamics	$1^{\text{st}} \text{ grading} = 0$ $1^{\text{st}} \text{ grading} = 1$ $2^{\text{nd}} \text{ grading} = 2$ $3^{\text{rd}} \text{ grading} = 3$	$\Sigma \frac{\text{Assign score of grading /Time taken}{\text{No. of Grading}}$
3	Loan repayment rate	Not applicable	$= \frac{\text{Amount o loan recovery index}}{\text{Total demand for recovery}} X 100.$

Table -3: definition of variables

Variables	Definitions								
Dependent variable									
EMW	$EMW = overall empowerment = EMW_1 + EMW_2 + EMW_3 (Mean value)$								
Dependent variable									
SAGE	Age of SHG (in years)								
SEDU	AverageeducationallevelofSHG= Σ Score of educational level X Number of member in the levelTotal number of member								
LOAN	Amount of loan received by the SHG (in Rs.)								
МКТ	Level of market available Local level = 1, Block level = 2, District level = 3, State level = 4, National level = 5.								
FLIT	Financial literacy: No. of books & records maintained								
TRQ	Number of training under taken								
TRFT	Thrift or savings of the SHG								

Regression Analysis:

The regression model in this study considers empowerment (EMW) as dependent variable and amount of loan received by SHG (LOAN) as independent variable to form simple regression with the equation

 $EMW = \alpha + \beta LOAN_i + U_i -----(i)$



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This equation (i) measures how far credit supply alone can improve women empowerment. We can solve this by employing Ordinary Least Square (OLS) technique. If we consider the other factors mentioned in the Table-3 influencing women empowerment, we can estimate the model with following equation:

 $EMW_{i} = \alpha + \beta_{1}SAGE_{i} + \beta_{2}SEDU_{i} + \beta_{3}LOAN + \beta_{4}MKT_{i} + \beta_{5}FLIT_{i} + \beta_{6}TRG_{i} + \beta_{7}TRFT_{i} + U_{i}$ (ii)

Where EMW_i is the women empowerment index for respondent SHG,

SAGE_{*i*} is the age of respondent SHG_{*i*,} SEDU_{*i*} is the average educational level of respondent SHG_{*i*}, LOAN_{*i*} is the amount of loan received by respondent SHG_{*i*}, MKT_{*i*} is the market level available to the respondent SHG_{*i*}, FLIT_{*i*} is the financial literacy level of the respondent SHG_{*i*}, TRG_{*i*} is the number of training undergone by the respondent SHG_{*i*}, TRFT_{*i*} represents the thrift of the group and measured by the savings made by the members of the group and U_{*i*} is the usual error term. Again Ordinary Least Square (OLS) technique is employed in estimating the variables. The result of stepwise regression shows that for North 24-Parganas, Loan is the key factor for women empowerment (Table-4) below.

Table -4: Model Summary ^b of regression analysis for North 24 Parganas

Model	R	R	Adjusted	Std. error	Change Statistics				Durbin-	
		square	R square	of the	R	F	df1	df2	Sig. F	Watson
				estimate	square	change			change	
					change					
1	.696 ^a	.484	.473	33.61405	.484	45.007	1	48	.000	1.672

a. Predictors: (Constant), LOAN,

b. Dependent Variable: EMW ANOVA^b

Model	Sum of	df	Mean Square	F	Sig.
	Squares				
Regression	50853.570	1	50853.570	45.007	$.000^{a}$
Residual	54235.419	48	1129.905		
Total	105088.989	49			

a. Predictors: (Constant), LOAN

b. Dependent Variable: EMW

It has been observed that simple OLS represented by equation (i) above, is sufficient to explain the women empowerment in North 24 Parganas with R=0.696, $R^2 = 0.484$, adjusted $R^2 =$ 0.475. F value for these are significant with significant Beta value of 0.696. It has also observed that no multicolinearily and / or autocorrelation has been observed in the model. The Beta value



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of other variables are not significant and we may drop the other variable from the model for North 24-Parganas.

We get R=0.944, $R^2 = 0.892$, adjusted $R^2 = 0.889$ which all are highly significant along with significant Beta value of 0.944. The question of multicolinearily and autocorrelation are also not occurred. [**Table -5**]

In step wise regression, the two most significant variables and thrift (TRFT) and loan (LOAN).

If we consider the impact of these two variables on women empowerment (EMW), we get significant values for R (0.953), R^2 (0.908) and adjusted R² (0.934). The Beta values of both TRFT and LOAN are significant, but we have negative value of Beta for loan which means loan has an negative impact on women empowerment n Purulia. [Table -5].

Table -5: Model	Summary of	regression	analysis	for Purulia

Model	R	R	Adjusted	Std. error	Change S	Change Statistics				Durbin-
		square	R square	of the	R	F	df1	df2	Sig. F	Watson
				estimate	square	change			change	
					change					
1	.944 ^a	.892	.889	15.92321	.892	394.750	1	48	.000	
2	.953 ^b	.908	.904	14.81096	.017	8.480	1	47	.005	1.437
3	.968 ^c	.938	.934	12.31917	.030	21.936	1	46	.000	

a. Predictors: (Constant), TRFT b. Predictors: (Constant), TRFT, LOAN c. Predictors: (Constant), TRFT, LOAN, MKT d. Dependent Variable: EMW ANOVA^b

Model	Sum of	df	Mean Square	F	Sig.
	Squares				
1.Regression	100088.230	1	100088.230	394.750	$.000^{a}$
Residual	12170.329	48	253.549		
Total	112258.559	49			
2.Regression	101948.430	2	50974.215	232.372	.000 ^b
Residual	10310.129	47	219.364		
Total	112258.559	49			
3.Regression	105277.505	3	35092.502	231.234	.000 ^c
Residual	6981.054	46	151.762		
Total	112258.559	49			



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a. Predictors: (Constant), TRFT b. Predictors: (Constant), TRFT, LOAN c. Predictors: (Constant), TRFT, LOAN, MKT d. Dependent Variable: EMW

With stepwise regression procedure if we consider the impact of first three variables on women empowerment (EMW), we have the variables thrift (TRFT), loan (LOAN) and market (MKT). In this model, we have significant values for R (0.968), R^2 (0.938) and adjusted R^2 (0.934). Multicolinearily and autocorrelation do not occur here. We have highly significant Beta values for all the three variables , but value of Beta is negative for loans which means for this model also, loan has a negative impact on women empowerment in Purulia. [**Table -5**]. Other variables are insignificant and hence we may drop them.

In considering overall impact of variables on women empowerment in West Bengal by stepwise regression, we get as a single variable, thrift (TRFT) has most significant impact on women empowerment with significant R (0.675), R^2 (0.455) and adjusted R^2 (0.450). The Beta value (0.675) is also positive and significant. Multicolinearily and autocorrelation are also absent.

If impact of first two variables are considered in stepwise regression method, the variables are thrift(TRFT) and loan (LOAN) with highly significant R (0.810), R^2 (0.656) and adjusted R^2 (0.648). The Beta values are also positive and significant. Since, the Beta values for other variables are insignificant, we may drop those variables from the model [**Table -6**].

Model	R	R	Adjusted	Std. error	Change S	Change Statistics				Durbin-
		square	R square	of the	R	F	df1	df2	Sig. F	Watson
				estimate	square	change			change	
					change					
1	.675 ^a	.455	.450	35.479	.455	81.946	1	98	.000	
2	.810 ^b	.656	.648	28.362	.200	56.351	1	97	.000	1.570

 Table -6: Model Summary ^c of regression analysis for West Bengal (overall)

a. Predictors: (Constant), TRFT b. Predictors: (Constant), TRFT, LOAN c. Dependent Variable: EMW ANOVA^c

Model	Sum of	df	Mean Square	F	Sig.
	Squares				
1.Regression	103149.137	1	103149.137	81.946	.000 ^a
Residual	123357.139	98	1258.746		
Total	226506.276	99			
2.Regression	148478.592	2	74239.296	92.290	.000 ^b
Residual	78027.684	97	804.409		
Total	226506.276	99			



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a. Predictors: (Constant), TRFT b. Predictors: (Constant), TRFT, LOAN c. Dependent Variable: EMW

Conclusion:

The apparently paradoxical results for North 24-Parganas and Purulia come from the fact that in North 24-Parganas, SHG movement is highly organized. The Clusters and sub clusters are already being formed. Not only grading of SHGs is almost completed, grading of clusters and sub clusters are also almost completed.

Hence, the stage of building up practice of thrift had been over in long ago in North 24-Parganas and hence thrift (TRFT) has no new impact at present and since North 24-Parganas is a adjacent district to metropolitan city Kolkata. It has no marketing problem. The SHGs in North 24-Parganas used to avail the huge market of Kolkata, new townships like Saltlake, Rajarhat and other hat and cities . Again as North 24-Parganas situated in the border of Bangladesh. Some SHGs also avail international market . Hence market (MKT) is not a significant factor. Loan along can improve women empowerment in North 24-Parganas.

Scenario is the reverse for Purulia, SHG movement is not organized. Clusters and sub clusters are yet to formed and / or graded. Grading of SHGs are incomplete to a large extent. Hence practice to thrift (TRFT) is a key factor in determining group dynamics, as well as, women empowerment. Again due to lack of infrastructure, communication, modern technology etc. sufficient market facilities are not available to maximum SHG here. Again, even where market facilities are available, the quality of such market is very low. Hence, market (MKT) is a key factor for women empowerment and / or SHG movement. For the above two factors, catering high quantum loan for disorganized SHGs with poor market facility, is highly risky, as well as, detrimental. Hence, impact of loan (LOAN) is negative on women empowerment in Purulia.

We can reconcile these results by considering that Thrift is an essential component of formation and improvement of SHGs / SHG movement. More thrift brings more self reliance and greater dynamics for the SHG groups. The first activity that a SHG has to undertake after formation is the practice of thrift. Hence it is an essential factor. Again, loan has an overall positive impact for women empowerment. Even in Purulia, The impact of loan is negative due to misutilization. The scenario can be changed, if the SHG movements are organized and marketing links are provided. At present condition, as a whole, the positive impact of loan is highly intensive enough to upset it's negative cases. But if an uniform strategy is followed on the basis of the result that overall impact of microcredit is positive for West Bengal as a whole, that would be detrimental for the district Purulia.

This is a personal opinion of the author.



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