

OCCUPATION OF WOMEN AND THEIR EMPOWERMENT LEVEL: A STUDY OF THE RURAL WOMEN OF NAGAON DISTRICT OF ASSAM

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The study is based on primary data and the target group population comprises of rural adult women belonging to 18-60 age group. The size of the sample is 250. Multistage sampling technique is used for drawing the sample and the interview method is applied for collection of data. The study is conducted to address the objectives of the measurement of the empowerment level of women and to examine its linkage with the women's occupational status. The empowerment level of women is measured by taking into consideration three conventional attributes of it, viz. women's decision making ability, their freedom of movement and political participation. The results show a low level of empowerment of rural women and also reveal that the income based occupational status of women has a positive impact on their level of empowerment.

Key Words: Women Empowerment, Fuzzy Set Technique, Income-based Occupational Status of Women.

INTRODUCTION

In a male dominated rural society, women have always been underestimated and discriminated in almost all spheres of life. That has adverse effect on the social, cultural, economic and political development of women. The traditional duties of managing households including care services given by the women are mostly unvalued and considered traditionally as the responsibilities of the women in developing world. Such traditional role of women creates obstacles in achieving their social and economic empowerment. Empowerment is fundamentally about power i.e. the power to redefine possibilities and options and to act on them, the power which enables people to have the courage to do things they never thought themselves to be capable of, and the power to claim what is rightfully theirs (Kabeer et al, 2008). Since 1990s, empowerment of women has been increasingly recognized as a prerequisite for the success of development programmes. The World Bank has identified empowerment as one of the key constituent elements of poverty reduction and also as a primary development assistance goal and therefore suggested that empowerment of women should be a key aspect of all social development programs (World Bank, 2001). One development of recent decades that has contributed to the elevation of the status of women in the society is the increasing participation of women in valued works. The government of less developed countries including India has been careful about making provisions for jobs for women in the formal sector of the economy. The joining of jobs in formal sector by women in large number has increased their decision making power both within and outside family, their freedom of movement etc to a great extent. But the link between the nature of women's occupation and their empowerment level is not very clear. From different studies it is also found that the status of women in rural areas is generally low as compared to that of the women of urban areas. Without raising the status of women in rural areas the development of that society is not possible.

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Keeping this perspective in view, the present study aims at analyzing the level of women empowerment and its link with their occupation in a remote economically backward region of Assam. The geographical area selected for the study is rural areas of Nagaon district of Assam. This district is selected for the following reasons. It is one of the most backward districts of Assam and is thickly populated (density of population is more than 700 per square Km as per 2011 Census which is the highest in the state). As per HDR of Assam- 2003, the position of Nagaon in HDI ranking is 14 out of 23 districts of the state and its GDI rank is 22 which points towards the prevalence of high gender disparity in the society. Moreover, the female work participation rate is only 12.24 in 2001 which is the third lowest in Assam. The female literacy rate is 68.07% as per census 2011. Keeping all these points in view, a pioneering attempt is made here by selecting the rural areas of Nagaon district of Assam for the study. The study is designed to address the following objectives:

1. To measure the empowerment level of rural women of Nagaon District of Assam.
2. To examine the linkage between women empowerment and her occupational status in the study area.

METHODOLOGY

The study is based on primary data and the target group population comprises of adult women belonging to 18-60 age group. Identification of this group is in the line of the study that focuses on empowerment and workforce participation of women. The sample size selected for the study is 250. Multistage sampling technique is used for collection of data. A structured interview schedule is prepared by the researcher and used for collecting data from the rural areas of Nagaon District. Direct interview method is followed here for collection of data from the respondent target group women. The data are collected from both employed and unemployed women.

Literature suggests that the basic segments which constitute the level of women empowerment are her ability to take decision within family, her freedom of movement and her political participation. Women empowerment level, therefore, is measured in this study by taking into consideration these three basic constituent parts of empowerment. The overall empowerment of women is the aggregate of women empowerment in the areas of decision making within family, freedom of movement and political participation. The variables which are used in this study to measure women empowerment in its above mentioned three constituent parts are defined below.

Decision making within family: The decision making ability of women within the family is judged by her decision making power in regard to Family Health Care, Larger household purchase, Routine household purchase, Family size, Family planning, Job of women, Going outside home by any member, Family day to expenditure and Spending personal income. In regard to each of these variables, value assigned is 1 if a woman is found to be able to take decision independently; 0.5 if she takes decision after discussion with other family member(s) and; if she has no role to play in decision making.

Freedom of movement: The variables representing freedom of movement are women's ability to move freely for Local market for purchase, Local health centre/clinic, Gossiping in the neighborhood, Visiting home of relatives/friends, Visiting other city or village, Recreation in cinema hall, club, festival or village fair etc., Visiting parental home, Participating in cultural programmes of village/town, Participating in religious programmes of village /town, Participating in the meeting of women organizations, Doing job/work outside home for self earnings. As like previous case, each of the said

variables are quantified as 1 if woman has full freedom of movement; 0.5 if woman moves out after having discussion with other member(s) of the family and; 0 if woman has no freedom of movement.

Political participation- The following variables define the constituent part Political Participation of women empowerment. Ability to - cast vote in election, Vote to a candidate of choice, Attend the speeches of the election candidates, Update self about the political system and, Talk to political leaders/representatives in need. The values assigned to each of these variables are as follows – 1 if woman enjoys full freedom of political participation; 0.5 if she has partial freedom and; 0 if the woman has no freedom of participation.

Thus applying this method of quantification of variables, representing the constituent parts of empowerment, in fuzzy set analysis the women empowerment is measured.

Fuzzy set technique is used to analyze and interpret the data in the study. The notion of fuzzy set was first introduced by Zadeh in 1965 when he defined fuzzy set as “a class of objects with a continuum of grades of membership”. The fuzzy set theory has been applied in different frameworks, for example, in the measurement of poverty (Cerioli, Zani, (1990); Lemmi, Betti, (2006)); well-being (Chiappero, Martinetti, (2000); Balamoune-Lutz, (2004)), quality of life (Lazim, Osman, (2009)); customer satisfaction for a service (Zani, Milioli, Morlini, (2012)), or satisfaction of graduates with the suitability of university education for working purposes (Crocetta, Del Vecchio, (2007)).

Let X be a set and x some elements of X and E is the fuzzy subset which represents the set of empowered women. The degree of membership to the fuzzy set E of the i -th individual ($i=1, \dots, n$) with respect to the j -th attribute ($j=1, \dots, m$) is defined as

$$\mu_E(X_j(a_i)) = x_{ij} \quad 0 \leq x_{ij} \leq 1$$

Where

$x_{ij} = 0$ iff the i -th individual is fully empowered with respect to the j -th attribute;

$x_{ij} = 0$ iff the i -th individual is not empowered with respect to the j -th attribute

$0 \leq x_{ij} \leq 1$ iff the i -th individual is partially empowered with respect to the j -th attribute with an intensity belonging to the open interval (0,1).

The empowerment index of the i -th individual $\mu_E(a_i)$ i.e. the degree of membership of i -th individual to the fuzzy set E is defined as the weighted average of x_{ij} ,

$$\mu_E(a_i) = \sum_{j=1}^m x_{ij} w_j / \sum_{j=1}^m w_j$$

Where w_j the weight attached to the j -th attribute. The empowerment index $\mu_E(a_i)$ measures the degree of empowerment of the i -th individual as a weighting function of the m attributes. Hence, it measures the intensity of empowerment of the i -th individual subject to decision making, freedom of movement, political participation.

The weight w_j attached to the j -th attribute stand for the intensity of empowerment of X_j . It is an inverse function of the degree of empowerment of this attribute by the population of individuals.

A weight that fulfils the above property is proposed by Cerioli and Xani (1990) and can be represented by the following form-

$$w_j = \log \left[n / \sum_{i=1}^n x_{ij} \right] \geq 0$$

Finally, the empowerment index of the population μ_E is simply obtained as a weighted average of the empowerment index of the i -th individual $\mu_E(a_i)$

$$\mu_E = 1/n \sum_{i=1}^n \mu_E(a_i)$$

In addition to the multidimensional empowerment index of the i -th individual $\mu_E(a_i)$ and of the population $\mu_E(a_i)$, the fuzzy set theory also allows to obtain a unidimensional empowerment index for each of the j -th attributes considered.

While the multidimensional empowerment index for the i -th individual $\mu_E(a_i)$ is the weighted average of w_j , with weight w_j , the unidimensional empowerment index for the j -th attribute is the average of x_{ij} :

$$\mu_E = 1/n \sum_{i=1}^n x_{ij}$$

In this way it is possible to get the multidimensional empowerment index of the population μ_E as the weighted average of $\mu_E(X_j)$ with weight w_j :

$$\mu_E = 1/n \sum_{i=1}^n \mu_E(a_i) = \sum_{j=1}^m \mu_E(X_j) w_j / \sum_{j=1}^m w_j$$

In order to define the degree of membership X_j to the set E of the i -th household, $i = 1, 2, \dots, n$, with respect to the j -th indicator, $j = 1, 2, \dots, m$ it is possible to follow a three steps procedure-

First, for each indicator X_j it is necessary to build a table containing the possible simple or composite outcomes of x_{ij} .

Second, to each outcome it is associated a value, in the closed unit interval $[0,1]$, which represents, for the j -th indicator, the degree of membership to E corresponding to the given outcome.

Third, for the i -th household, $i = 1, 2, \dots, n$, is observed the outcome with respect to the j -th indicator and it is assigned the corresponding degree of membership to E , which for the i -th household is x_{ij} . Tables-1 represents the degrees of membership assigned to the outcomes of the $m = 3$ indicators considered.

ANALYSIS, RESULTS AND DISCUSSION

In Table-1, X_2 represents respondent's decision making power within the family. X_2 represents respondent's freedom of movement and w_j represents respondent's political participation. $\mu_E(X_j)$ represents degree to empowerment according to the attributes. w_j indicates the weight of the attributes. $\mu_E(X_j)w_j$ represents attribute-wise weighted women empowerment index.

Table- 1 : Weighted Women Empowerment Index

Attributes	$\mu_E(X_j)$	w_j	$\mu_E(X_j)w_j$
X_1 (Decision making within the family)	0.5032	0.2981	0.15
X_2 (Freedom of movement)	0.4359	0.3605	0.1571
X_3 (Political Participation)	0.5396	0.2679	0.1445

Now the women empowerment index (WEI) is calculated by using the following formula

$$WEI = \sum_{j=1}^m \mu_E(X_j)w_j / \sum_{j=1}^m w_j$$

$$= 0.4516/0.9265$$

$$= 0.4874$$

Thus we can say that the women empowerment index of rural areas of Nagaon district is 0.4874 which is very low.

The contribution to the empowerment index of three attributes used in the analysis can be obtained by using the following formula

$$\mu_E(X_j)w_j / \mu_E \quad \text{where } j = 1, 2, 3$$

The contribution to the empowerment index by attribute (percent values) is shown in the following table

Table - 2 : Attribute-wise Share in Women Empowerment (in %)

Attributes	Contribution (in %)
X_1	33.2
X_3	34.8
X_3	32.0

Sub group Empowerment Decomposition

It is possible to decompose women empowerment index by sub population. Suppose the total population is divided into K groups, S_k , of size S_k ($k=1,2,...,K$). The intensity of women empowerment of i -th individual of S_k is given by

$$\mu_E(a_i^k) = \sum_{j=1}^m x_{ij}^k w_j / \sum_{j=1}^m w_j$$

Where S_k is the degree of membership related to the fuzzy sub set E of i -th individual ($i=1,2,...,n$) of S_k with respect to the j -th attribute ($j=1,2,...,m$). Hence, the fuzzy women empowerment associated with group S_k is:

$$\mu_E^k = 1 / n_k \sum_{i=1}^{n_k} \mu_E(a_i^k)$$

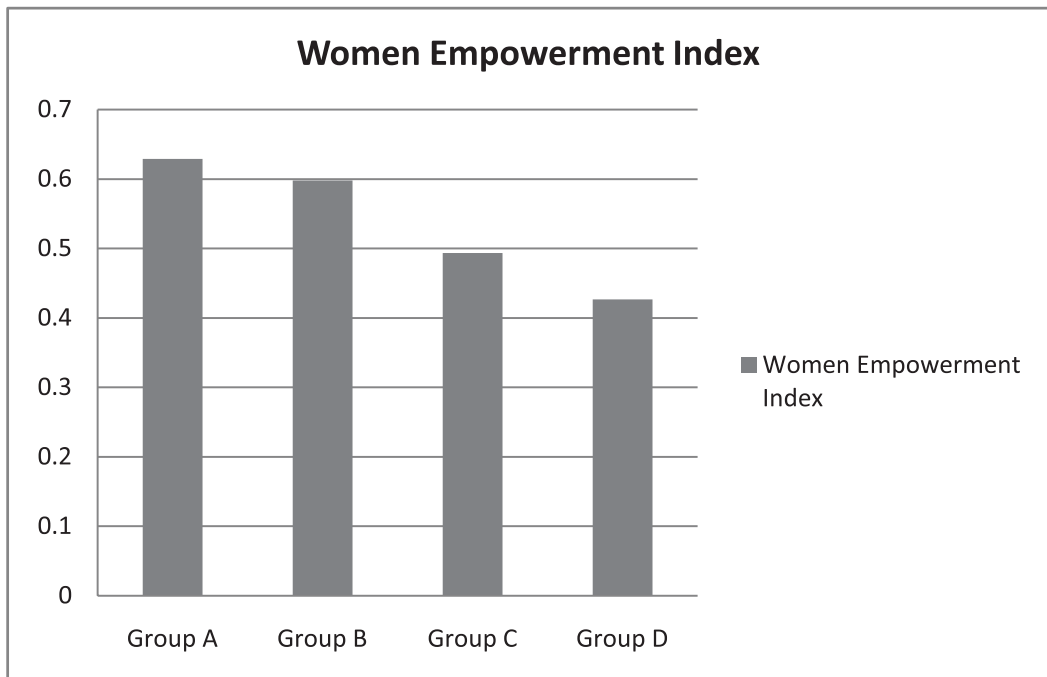
We divide the total 250 respondents into four groups on the basis of their level of monthly income. The groups are divided as follows-

1. Group A (Income more than Rs. 40000)
2. Group B (Income between Rs. 10000 to Rs. 40000)
3. Group C (income between Rs. 500 to Rs. 10000)
4. Group D (Those who are unemployed and those whose income is less than Rs. 500)

Occupation-wise women empowerment index value is shown in Table- 3 and the same is shown diagrammatically in Diagram-1.

Table - 3 : Occupation-wise Women Empowerment

Group	Women Empowerment Index Value
Group A	0.6292
Group B	0.5980
Group C	0.4935
Group D	0.4269

Diagram - 1

From the above table and diagram it can be said that the women of group A whose income is more than Rs. 40000 have higher empowerment value than the others and the women of group D who are unemployed or having income less than Rs. 500 have lowest empowerment value. The income- based occupational position is found to have strong linkage with women empowerment because those women who are working as Group A workers have more decision making power within family, freedom of movement and also active in political participation than those women who are unemployed or low income earner.

The level of women empowerment in rural areas of Nagaon district is found to be low. The average women empowerment index of women in rural areas of the district is only 0.4874. Besides this, when we talk about the occupation groups the results show that higher income groups in higher occupations have higher empowerment level than lower income and unemployed groups. Therefore higher occupation (in terms of income) results in higher empowerment of women. This is probably because of higher prerogatives and position associated with higher occupations that enable a woman to raise her voice in household decision making process, to move around with more freedom and also to participate more actively in political system. Thus we can say that there is positive correlation between occupational status of women and their empowerment.

CONCLUSION

The results show that the level of women empowerment in rural areas of Nagaon district is not satisfactory. The average women empowerment index of women in rural areas of the district is only 0.4874. The reason for this low level of empowerment appears to be limited livelihood options for the women of the district. Another reason for low level of empowerment is that the women section of rural areas is less aware about the various development policies and programmes of the government. The link between women empowerment level and their occupation is very clear from the study. Women belonging to higher income groups have higher empowerment level than lower income and unemployed groups. The implication of this result points towards the importance of higher and quality education for women, diversification of livelihood options for them and implementation of governmental affirmative programmes for the social development of women.

One interesting finding of the study is the contribution of attribute 'freedom of movement' to women empowerment index value. It is found to be the highest at 34.8% among all the attributes of women empowerment. The result implies that rural women have more freedom of movement relative to their decision making ability and political participation. This is probably because of the existing structure of the economy where women venture out to join family farm works and low paid unskilled jobs in the unorganized sector of the economy. The utility of marginal income earned by them is very high in low income households as a reason of which the males of the family do not object to their movement outside home.

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