Empowering Rural Women through Kudumbashree Mission: An Analysis of Socio Economic Factors and Structural Constraints

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

The study explores the role of Kudumbashree mission in empowerment of rural women by understanding the socio-economic factors and structural constraints faced by the rural women members. The paper identifies the key socio-economic factors and structural constraints that limits the full potential of Kudumbashree mission. The sampling design of this study includes the primary data of 120 respondents collected through personal interview schedules. The study was conducted in the three blocks namely Payyannur, Taliparamba and Irikkur blocks of Kannur district of Kerala particularly and constituted 120 respondents that has been randomly selected from the random four villages in those three blocks of Kannur district respectively. The analytical procedures used here to describe the data particularly includes the methods like average and percentage for the socio-economic factors determination and Friedman test was done through SPSS (Statistical Package for the Social Sciences) was used for determination of the structural constraints. The study findings suggests that while the program has made significant changes in fostering self-reliance among women, a more wider addressing on the structural constraints needed to be done properly.

1. INTRODUCTION

Empowerment of women has emerged as an important criterion in the context of a country's growth and development. Women constitute about 48.26 % of the population of India (Rana *et al.,* 2020) but their participation in socio-economic field is minimal in comparison with male population. The female work participation rate is only 27 which is lower than many of the Asian countries in world.

In India, various policy initiatives have always tried to uplift the women by addressing the main problems like gender disparities, financial independence, education, employment and decision making. Among all those policies implemented, the Kudumbashree mission in Kerala stands out as a pioneering model of participatory development that aimed mainly in the socio-economic empowerment of women through a community-based approach (Menon *et al.,* 2023). This scheme was launched in 1998 by the Government of Kerala and the word 'Kudumbashree' means "prosperity of the family" and thus this mission mainly functions as a women empowerment and poverty eradication program that is been grounded by the principles of collective action and the involvement of Neighbourhood groups (Aarcha, 2023). The mission has a 3.16 lakh strong state wide network of well-organized neighbourhood groups in which 46.16 lakhs women are actively participating in it (Local Self Government Department, Kerala).

The Kudumbashree mission is having a well-organized three-tiered structure with the apex tier monitored by the local self-governments. The three tiers are mainly known as Neighbourhood groups (NHG's), Area Development Society (ADS) and Community Development Society (CDS). Initially, Ayalkoottam or Neighbourhood Groups (NHG's) consist of 10-20 women from the same neighbourhood, forming the foundational organization at the grassroots level. Secondly, Area Development Society (ADS) are those groups of several NHG's within a ward of the panchayath and finally, Community Development Society (CDS) is a registered society formed by several Area Development Societies within the panchayath that functions as the apex body. Then there is a general body that is been formed by the Community Development Society and has been governed by a Monitoring and Advisory Committee that consists of 9 members as the governing body committee (Prasad, 2023).

This research paper aims to examine the socio-economic factors and the limitations that is been faced by the women members in this Kudumbashree Mission. The study was conducted in the three blocks namely Payyannur, Taliparamba and Irikkur blocks of Kannur district of Kerala and constituted 120 respondents that has been randomly selected from the randomly selected four villages in those three blocks of Kannur district respectively.

1.1 Objectives

i.   To study the socio-economic status of participants in the Kudumbashree mission in empowering women.

ii. To study the constraints faced by selected NHG's members of Kudumbashree mission.

2. RESEARCH METHODOLOGY

2.1 Sampling Design

The sample for the study purpose was selected by the Multistage purposive cum random sampling techniques as this will be applied for selection of respondents in the selected district, blocks and villages respectively. The district and blocks were selected purposively and villages and respondents were selected randomly for this study purpose.

2.2 Selection Area

Kerala a state located in the southernmost part of India was selected for the study purpose as this scheme was implemented by the Government of Kerala in May 1998. For this study purpose mainly Kannur district was taken purposively as it has a major number of participations in the state in this scheme. Out of this district a total of eleven blocks are there from which the top most three blocks have been selected purposively as those blocks are the top three blocks in number of participation of women members in the Kannur district. The three blocks include Payyannur, Taliparamba and Irikkur blocks namely. Then four villages from each of these three blocks are selected randomly and from these each of the villages, ten respondents were taken randomly for the study purpose.

2.3 Data Collection

For this study purpose, primary data was obtained from a randomly selected sample from the twelve villages that was pertaining to the selected three blocks of Kannur district of Kerala respectively. The data collection involved structural interview schedules that was designed to align the study's major objectives. The information was gathered through this interview schedule regarding the socio-economic factors that includes age, caste, family size, marital status, education, occupation, annual income and land holding. Also, the details of limitations that were been faced by the women members were collected through this personal interview schedule. Additionally, the secondary data was collected from the District Mission Office of Kudumbashree mission in Kannur and through the website of Local Self Government Department of Kerala.

2.4 Analytical Procedures

The following analytical framework that consists of statistical tools and procedures are used to analyse the primary data that is been collected in order to meet the study's both of these objectives (Shinogi *et al.,* 2018).

i) To study the socio-economic status of participants in the Kudumbashree mission in empowering women.

Here, percentage and average is used for determining the socio-economic factors as both the methods provides the proper percentage of the factors used and the average size in each of the category needed (Behara *et al.*, 2025; Chaudhury, 2015 & Verma *et al.,* 2024).

➤ Percentage: - The percentage is used to represent proportional data and frequency distributions. It is calculated using the formula:

Percentage = $\frac{X}{Y}$ x 100

Where,
X = Number of respondents falling in specific category to be measured.
Y = Total number of observations.

➤ Average: - The average is calculated to determine the central tendency of a data set, particularly when comparing groups or repeated measurements. It is calculated using the formula:

Average = $(a_1 + a_2 + \ldots + a_n)/n$

Where,
$a_1, a_2 \ldots a_n$ are the observations measured,
n is the number of observations.

ii) To study the constraints faced by selected NHG's members of Kudumbashree mission.

Friedman Test using SPSS (Statistical Package for the Social Sciences) is used here to determine the constraints faced by the NHG's members (Chandrashekar, 2024; Gopalan & Santha, 2018; Thyagarajan *et al.,* 2019 and Gholian *et al.*, 2021).

The formula for the Friedman test statistic is:

$F_r = \{12/ (nk\ (k+1))\}$ x $(\ T_1^2 + T_2^2 + \ldots\ldots + T_k^2\ ) - 3\ n\ (k+1)$

Where;

n is the number of independent blocks or rows

k is the number of treatments or classifiers
T is the treatment or classifier.

3. RESULTS AND DISCUSSIONS

3.1 Socio-Economic Status of Participants in the Kudumbashree Mission in Empowering Women

There were several socio-economic factors of respondents selected for this study purpose like age distribution, caste, family, marital status, educational status, occupational status, annual income, land holding size, distribution of livestock and poultry in the households and the type of loan taken by the respondents.

3.1.1 Age wise composition of respondents

Age was an important socio-economic factor that is to be considered as it depends on the decision-making abilities of the respondents. Here, in this study the age has been classified based on the respondents and it varies in four type of age categories as described in Table 1 i.e., the age group between 26-35 is about 5.83% with an average age of 33.57 years, the age group between 36-45 is about 10.83% with an average age of 42.84 years, the age group between 46-55 is about 43.34% with an average age of 51.15 years and the age group above 56 is about 40% with an average age of 64.89 years out of all the respondents. This result shows that

the maximum number of the respondents is between the age group 46-55.

3.1.2 Caste wise composition of respondents

Caste was another socio-economic factor that was considered and the Table 2 shows the percentage of respondents included in this. It shows that respondents belonging to General category is 40%, OBC is 58.34%, SC is 0.83% and ST is 0.83% out of cent percent. The results shows that maximum number of respondents belong to OBC category.

3.1.3 Family wise composition of respondents

Family composition was an essential socio-economic attribute since it can make a huge impact on the resource allocation in the households of the respondents. The Table 3 shows that majority of the respondents have nuclear size family i.e. 90% and the minority is having joint family i.e. 10%.

3.1.4 Marital Status wise composition of respondents

Marital Status was another socio-economic factor which describes the dependency of the respondents. The Table 4 shows that majority of the respondents are married and it constitutes about 80.84%. The other part is the minority which was widow's and it constitutes about 19.16%.

Table 1. Age wise composition of the respondents

S. No	Age Group (Years)	Number	Average Age	Percentage (%)
1.	26 – 35	7	33.57	5.83
2.	36 – 45	13	42.84	10.83
3.	46 – 55	52	51.15	43.34
4.	> 56	48	64.89	40
5.	Total	120	48.11	100

Table 2. Caste wise composition of respondents

S. No	Caste	Number	Percentage (%)
1.	General	48	40
2.	OBC	70	58.34
3.	SC	1	0.83
4.	ST	1	0.83
5.	Total	120	100

Table 3. Family wise composition of respondents

S. No	Family Size	Number	Percentage (%)
1.	Nuclear	108	90
2.	Joint	12	10
3.	Total	120	100

3.1.5 Educational Status wise composition of respondents

Education was an essential socio-economic factor for women empowerment because it is the basis of their self-confidence and knowledge in various areas. The Table 5 shows that out of all the respondents taken, 22.5% are having primary education, 7.5% are having secondary education, 31.67% are having high school education, 28.33% are having intermediate education and 10% are having degree level education.

Even after considering the rural areas, it is clearly visible that there is no percent of women who is still illiterate and that shows the changes in women in the rural areas.

3.1.6 Occupational Status wise composition of respondents

Occupation was an important socio-economic factor as it shows the level of independence women have in a rural household. Here, in this Table 6 it shows that the majority of the respondents are having agriculture labour i.e. 25%, 7.5% are having non-agriculture labour,

1.67% are having government service, 2.5% are having a combination of agriculture and government service, 17.5% are having combination of agriculture and non-agriculture labour, 11.67% are pensioners, 13.33% are having other jobs and about 20.83% are not having any occupation on their own. This table results shows that in rural areas among women government sector is still having less significance out of all other sectors.

3.1.7 Annual Income wise composition of respondents

Annual Income was an essential socio-economic factor as it describes the financial independency of a women in rural household. The Table 7 shows that out of all the respondents 33.34% are having an income less than Rs 50,000, 9.16% are having an income between 50,000 – 75,000 Rs, 2.5% are having an income between 75,000 – 1 lakh, 50.84% are having an income more than 1 lakh and 4.16% are not having any income on their own. This table results clearly shows that in even in rural areas women are trying their maximum to contribute to their household income purpose.

Table 4. Marital Status wise composition of respondents

S. No	Marital Status	Number	Percentage (%)
1.	Married	97	80.84
2.	Widow	23	19.16
3.	Total	120	100

Table 5. Education wise composition of respondents

S. No	Educational Status	Number	Percentage (%)
1.	Primary	27	22.5
2.	Secondary	9	7.5
3.	High School	38	31.67
4.	Intermediate	34	28.33
5.	Graduate	12	10
6.	Total	120	100

Table 6. Occupational Status wise composition of respondents

S. No	Occupation	Number	Percentage (%)
1.	Agriculture	30	25
2.	Non – Agriculture	9	7.5
3.	Government Service	2	1.67
4.	Agriculture + Government Service	3	2.5
5.	Agriculture + Non – Agriculture labour	21	17.5
6.	Pensioner	14	11.67
7.	Others	16	13.33
8.	Nil	25	20.83
9.	Total	120	100

3.1.8 Land Holding pattern wise composition of respondents

Land holding pattern was a significant socio-economic factor in rural areas as most of the people choose agriculture as their main profession. This Table 8 shows that majority of the respondents are marginal farmers i.e. almost 95%, rest 2.5% is small farmers and another 2.5% is semi-medium farmers out of all the respondents.

3.1.9 Distribution of livestock and poultry per household of respondents

Livestock & Poultry also plays an important role in rural household as it has different functions to perform like it is source of income, source of food, source of employment, improves the soil fertility and even the productivity of the farm. Thus, majority of the rural households have livestock and poultry. This Table 9 shows that average number of cow and goat per household is 2 and hens is about 6.8 out of all respondents.

3.1.10 Loan taken pattern of respondents

Loan has always been a part of majority of the rural households mainly in an emergency situation phase. Under this Kudumbashree Mission the women participants have the right to take two types of loans mainly, Kudumbashree loan and Linkage loan. The Kudumbashree loan is where a women member is provided with a loan amount of maximum up to Rs 60,000 with a time period of 10 months to pay back at a least interest rate of 2% and linkage loan is where a women member is provided up to Rs 3 lakh with a payback period of 3 years given at an interest rate of 8.25% respectively.

Table 7. Annual Income wise composition of respondents

S. No	Annual Income (Rs)	Number	Percentage (%)
1.	Less than 50,000	40	33.34
2.	Between 50,000 – 75,000	11	9.16
3.	Between 75,000 – 1 Lakh	3	2.5
4.	More than 1 Lakh	61	50.84
5.	Nil	5	4.16
6.	Total	120	100

Table 8. Land holding pattern wise composition of respondents

S. No	Land holding pattern	Number	Average land holding (ha)	Percentage (%)
1.	Marginal farmers (Less than 1.00 ha)	114	0.25	95
2.	Small farmers (1.00 – 2.00 ha)	3	1,21	2.5
3.	Semi-medium farmers (2.00-4.00 ha)	3	2.25	2.5
4.	Total	120	-	100

Table 9. Livestock & Poultry per household of respondents

S. No	Livestock owned	Average No. per household
1.	Cow	2
2.	Goat	2
3.	Hen	6.8
4.	Total	3.6

Table 10. Loan taken pattern of respondents

S. No	No. of respondents taken Loan	Percentage (%)	No. of respondents not taken Loan	Percentage (%)
1.	91	75.84	29	24.16
Total	120	100	120	100

Table 11. Constraints faced by selected NHG's members of Kudumbashree mission

S. No	No. of respondents taken Kudumbashree loan	Percentage (%)	No. of respondents taken Linkage loan	Percentage (%)
1.	77	84.62	14	15.38
Total	91	100	91	100

Table 12. Social Constraints faced by NHG's members

Social Constraints	Mean ($\bar{x}$)	Overall Rank
Poor attendance in the meetings	3.52	I
Lack of Social Mobility	3.47	II
Lack of mutual understanding among NHG members	1.85	III
Lack of formal education	1.17	IV

Table 13. Test Statistics of Friedman Test in Social Constraints

Test Statistics	Value
N	120
Chi-Square	346.292
df	3
Asymptotic Sig.	0.000

Table 14. Economic Constraints faced by NHG's members

Economic Constraints	Mean ($\bar{x}$)	Overall Rank
Lack of quality inputs	2.75	III
Lack of availability of equipment's	2.78	II
Delay in repayment	2.85	I
Lack of credit sources	1.62	IV

Table 15. Test Statistics of Friedman Test in Economic Constraints

Test Statistics	Value
N	120
Chi-Square	198.105
df	3
Asymptotic. Sig.	0.000

Table 16. Technical Constraints faced by NHG's members

Technical Constraints	Mean ($\bar{x}$)	Overall Rank
Lack of training	3.18	I
Lack of awareness of technology	2.51	III
Lack of knowledge about loan procedure	1.16	IV
Difficulty in getting raw materials	3.15	II

Table 17. Test Statistics of Friedman Test in Technical Constraints

Test Statistics	Value
N	120
Chi-Square	287.364
df	3
Asymptotic. Sig.	0.000

This Table 10 shows that out of all respondents 75.84% have taken loan for their various purposes and rest 24.16% have not taken any loan in this time period. Also, out of these respondents taken loan 84.62% have taken Kudumbashree loan and 15.38% have taken linkage loan.

4. CONSTRAINTS FACED BY SELECTED NHG'S MEMBERS OF KUDUMBASHREE MISSION

There were three types of constraints that was mainly faced by the women members which includes social constraints, economic constraints and technical constraints respectively. The following tables described below shows the constraints that they have been faced in this Kudumbashree mission

4.1 Responses of the Social Constraints Faced by the NHG's Members

Social Constraints that have been faced by the women members in the NHG's of Kudumbashree mission includes lack of formal education, lack of social mobility, lack of mutual understanding among NHG members and poor attendance in the meetings. The Table 12 shows the results of Friedman test which showed that poor attendance in the meetings has a mean score of 3.52 and ranks I^{st} position out of the four constraints. Secondly, lack of social mobility ranks IInd with a mean score of 3.47. Thirdly, lack of mutual understanding among NHG members ranks IIIrd rank with a mean score of 1.85 and finally lack of formal education ranks IVth with a mean score of 1.17.

Thus, as the Chi-square value of 346.292 is high and the p value is 0.000 is less than 0.05 indicating that these are statistically significant.

4.2 Responses of the Economic Constraints Faced by the NHG's Members

Economic constraints that have been faced by the women members in the NHG's of Kudumbashree mission mainly includes four that are lack of quality inputs, lack of availability of equipment's, lack of credit sources and delay in repayment. The Table 14 shows the Friedman test results of economic constraints in which delay in repayment has I^{st} rank with a mean score of 2.85. Secondly, lack of availability of equipment's ranks IInd with a mean score of 2.78. Thirdly, lack of quality inputs ranks IIIrd with a mean score of 2.75 and finally Lack of credit sources ranks IVth with a mean score of 1.62.

Thus, as the Chi-square value of 198.105 has p value 0.000 which indicates a high significant result using Friedman test analysis.

4.3 Responses of the Technical Constraints faced by the NHG's members

Technical Constraints that have been faced by the women members in the NHG's of Kudumbashree mission mainly includes four constraints that are lack of knowledge about loan procedure, lack of awareness of technology, lack of training and difficulty in getting raw materials. The Table 16 shows the Friedman Test results of these four constraints in which lack of training ranks I^{st} with a mean score of 3.18, difficulty in getting raw materials ranks IInd with a mean score of 3.15, lack of awareness of technology ranks IIIrd with a mean score 2.51 and at last its lack of knowledge about loan procedure that ranks IVth with mean score of 1.16.

Thus, as the Chi-square value of 287.364 has a p value of 0.000 that indicates its highly significant and statistically meaningful.

5. CONCLUSION

The Kudumbashree initiative has been emerged a significant tool in empowering women in Kerala by promoting the social inclusion and community participation of the rural women. This research has examined the socio-economic factors that contributes to the empowerment of rural women and the challenges that has been faced by the women participants in the scheme. The results showed that in how much percentage these factors like age, caste, marital status, education, income, occupation, land holding, livestock and loan taken by the respondents has determined the participation of rural women. However, the structural constraints such as poor attendance in the meetings, lack of quality inputs, delay in loan repayment and lack of training continue to restrict its full potential in functioning properly of this mission. Thus, addressing these issues through proper solutions within a targeted time can further strengthen this mission.

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CONSENT

As per international standards or university standards, Participants' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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