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Self-Help Groups and the Socio-Economic Empowerment of Rural Women: An Empirical Study

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Abstract

Self-Help Groups (SHGs) have become an important instrument for promoting financial inclusion and improving the socio-economic well-being of rural households. Beyond providing access to savings and credit, SHGs can help women develop financial awareness, participate in household decisions, build confidence and become more economically independent. The present study examines the role of SHGs in promoting financial inclusion, women empowerment and socio-economic development among SHG members.

The study is based on primary data collected from 180 SHG members through a structured questionnaire in Shimla district of Himachal Pradesh. The data were analysed using descriptive statistics, Cronbach's Alpha, Pearson correlation and linear regression. The reliability results indicate good internal consistency of the scales used in the study. The descriptive findings show that respondents generally have positive perceptions regarding the contribution of SHGs to financial inclusion, women empowerment and socio-economic development. The correlation analysis indicates significant positive relationships among the major study variables. Further, the regression results show that financial inclusion significantly predicts women empowerment as well as socio-economic development. The findings also indicate that women empowerment and socio-economic development are closely associated with overall satisfaction among SHG members. Overall, the study suggests that SHGs can play a meaningful role beyond facilitating access to financial services by supporting women's empowerment and improving the socio-economic conditions of rural households. The study highlights the need to strengthen SHG activities related to financial literacy, access to formal financial services, income-generating opportunities and capacity building to enhance their contribution to rural development.

Keywords: Self-Help Groups, Financial Inclusion, Women Empowerment, Socio-Economic Development, Rural Development, SHG Members.

1. Introduction

1.1 Rural Women and Inclusive Development

Rural women are an important part of India's social and economic life. Their contribution can be seen in agriculture, livestock care, household production, small businesses and many other activities that support family livelihoods. Much of this work, however, remains either unpaid or insufficiently recognized. At the same time, women in rural areas often have fewer opportunities to access financial resources, productive assets, formal employment and decision-making processes. Limited financial literacy, lack of collateral, restricted mobility and dependence on other family members for financial decisions can further limit their economic choices.

The economic position of women is closely connected with their overall empowerment. Empowerment is not simply about having an income; it is also about having the ability to make choices, access resources, exercise control over those resources and participate in decisions that affect one's life. Kabeer (1999) explains women's empowerment in terms of three closely related elements: resources, agency and achievements. Similarly, Sen (1999) views development as an expansion of people's capabilities and freedoms. In the case of rural women, this means creating opportunities that enable them to make meaningful economic and social choices and participate more actively in their families and communities.

Women's empowerment is also important from a broader development perspective. When women have greater access to resources and economic opportunities, the benefits can extend to household welfare, children's education, health and the economic security of the family (Duflo, 2012; World Bank, 2012). Thus, improving the economic and social position of rural women is not only a matter of gender equality but is also an important part of inclusive rural development.

1.2 Self-Help Groups and Rural Women in India

In the Indian rural context, Self-Help Groups (SHGs) have become an important means of supporting women in their economic and social activities. An SHG generally brings together a small group of members who save regularly, access credit when required and work collectively to improve their livelihoods. The basic idea is simple: individuals who may find it difficult to access financial services on their own can achieve greater financial strength by saving and working together as a group.

Over time, however, SHGs have grown beyond their traditional savings and credit functions. They have become platforms through which women can access formal financial services, develop livelihood activities, receive training and interact with government agencies and financial institutions. Regular meetings also give women an opportunity to meet others, discuss common problems and take collective decisions. This group-based environment can be particularly useful for women who otherwise have limited opportunities for social and economic interaction outside their households.

The Self-Help Group-Bank Linkage Programme (SHG-BLP) promoted by the National Bank for Agriculture and Rural Development (NABARD) has played an important role in connecting SHGs with formal banking institutions. Through this approach, members can develop saving habits and gain access to institutional credit without depending entirely on informal sources of finance. The programme has consequently become an important part of India's efforts to extend financial services to rural and economically weaker sections of society (National Bank for Agriculture and Rural Development [NABARD], 2023a, 2023b).

The importance of SHGs has further increased with the expansion of the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM). The programme focuses on organizing rural women into SHGs and supporting them through financial inclusion, livelihood promotion, capacity building and enterprise development (Ministry of Rural Development, Government of India, n.d.). The large network of women organized under the programme demonstrates the growing role of SHGs in India's rural development framework.

1.3 Self-Help Groups and Financial Inclusion

Financial inclusion is one of the major areas through which SHGs can influence the economic lives of rural women. Financial inclusion is broader than simply having a bank account. It involves the ability to access and use financial services such as savings, credit, insurance, digital payments and other formal financial products. For women who have traditionally depended on informal sources of finance, access to formal financial services can provide greater financial security and create opportunities for economic activity.

SHGs can make this process easier by encouraging regular savings and providing a group-based mechanism for accessing credit. Regular interaction with banks and other financial institutions can also improve women's familiarity with formal financial services. In addition, financial literacy and capacity-building activities associated with SHGs can help members understand and use financial products more effectively. NABARD (2023b) highlights the continuing importance of the SHG-Bank Linkage Programme in expanding access to formal finance among rural households.

The relationship between financial access and women's economic position has been examined in several studies. Hashemi et al. (1996) found that participation in rural credit programmes was associated with several dimensions of women's empowerment. Pitt and Khandker (1998) also reported that group-based credit programmes could influence household behaviour and generate benefits for women participants. In the Indian context, Swain and Wallentin (2009) found evidence that participation in SHGs was associated with greater empowerment among women.

However, financial access alone does not necessarily mean that a woman is financially empowered. Having a bank account or obtaining a loan does not automatically give her control over the resources involved. Kabeer (2001) therefore emphasized the importance of distinguishing between access to resources and the ability to exercise control over them. Similarly, Garikipati (2008) found that women's access to credit did not always result in greater control over productive assets. This suggests that the real significance of financial inclusion lies in how women are able to use financial resources and whether that access gives them greater economic agency.

1.4 Self-Help Groups and Women Empowerment

The contribution of SHGs can also be seen in the personal and social changes experienced by their members. For many rural women, participation in an SHG provides one of the few regular opportunities to interact with other women outside the immediate family. Group meetings, savings activities and collective decision-making can encourage women to express their views, share experiences and gradually become more confident in dealing with financial and social matters.

Women's empowerment through SHGs can take different forms. It may involve greater participation in household financial decisions, increased confidence, improved leadership abilities, greater control over income or increased participation in community activities. These changes may not occur immediately, but regular participation in group activities can provide women with an environment in which such abilities can develop.

Moyle et al. (2006) found evidence of personal and economic empowerment among rural Indian women participating in SHGs. Swain and Wallentin (2009) similarly reported a positive relationship between microfinance participation and women's empowerment in India. Sanyal (2009) highlighted the importance of collective action and social capital, suggesting that women's groups can provide benefits that go beyond the financial transactions taking place within them.

The wider evidence also indicates that SHG participation can influence several dimensions of women's lives. Brody et al. (2017), in a systematic review of self-help group programmes, found evidence of improvements in different aspects of women's empowerment, although the extent of these effects varied across contexts. This variation is important because the experience of SHG members is shaped not only by the group itself but also by household conditions, local institutions and the economic opportunities available to women.

1.5 Self-Help Groups and Socio-Economic Development

The role of SHGs becomes more meaningful when their contribution is considered in relation to the wider socio-economic condition of participating households. Financial services can provide women with opportunities to start or expand small businesses, invest in livelihood activities and manage periods of financial difficulty. Regular savings can also provide a degree of financial security, particularly for households with irregular or uncertain income.

Improved economic participation may have wider consequences for the household. Additional income and savings can help families meet expenses related to education, healthcare, housing and other basic needs. In this sense, the benefits associated with SHG participation may extend beyond the individual member and influence the overall well-being of the household.

Evidence from India supports this broader view of SHGs. Deininger and Liu (2013) found that participation in an SHG programme was associated with outcomes such as income diversification, consumption smoothing and women's empowerment. These findings suggest that SHGs can contribute to socio-economic development through several interconnected channels rather than through credit alone.

At the same time, it would be too simple to assume that SHG membership automatically improves the socio-economic position of every participant. The benefits may depend on how financial resources are used, the nature of livelihood opportunities, the duration of participation and the level of support available to members. As Garikipati (2008) and Kabeer (2001) indicate, access to financial resources and actual control over those resources are not always the same. This makes it important to examine the experiences of SHG members empirically.

1.6 Interconnection Between Financial Inclusion, Empowerment and Socio-Economic Development

Financial inclusion, women's empowerment and socio-economic development are closely related aspects of women's economic lives. Financial inclusion can provide access to resources and opportunities, but women also need the ability to make decisions about how those resources are used. Greater decision-making power and economic confidence may, in turn, enable women to make better use of financial opportunities. When these opportunities lead to higher income, greater savings or improved livelihood activities, they may contribute to better socio-economic conditions for the household.

This relationship can be understood through the broader concept of agency. Kabeer (1999) argues that resources become meaningful when individuals have the agency to make choices and act upon them. In the context of SHGs, access to savings and credit may therefore be only the starting point. What matters equally is whether women are able to participate in financial decisions, control resources and convert economic opportunities into improvements in their own lives and those of their families.

The collective structure of SHGs may strengthen this process. Women can learn from one another, exchange information and develop confidence through repeated interaction. In this way, financial participation and social participation can reinforce each other. Sanyal (2009) points to the importance of social capital and collective action in this regard, while Brody et al. (2017) provide broader evidence of the empowerment potential of self-help group programmes.

Therefore, the role of SHGs can be viewed from a wider perspective. They are not merely mechanisms for providing small loans; they can also act as platforms for financial learning, collective participation, economic activity and social interaction. Understanding the links among these dimensions is important for assessing the broader contribution of SHGs to the lives of rural women.

2. Literature Review

Research on Self-Help Groups (SHGs) has increasingly moved beyond their traditional role as savings and credit institutions to examine their contribution to women's empowerment, financial inclusion and socio-economic development. The existing literature provides considerable evidence of positive outcomes, although the extent of these benefits varies across regions and dimensions of empowerment.

2.1 SHGs, Financial Access and Women's Empowerment

Early research established an important link between access to group-based finance and women's empowerment. Hashemi et al. (1996) found that participation in rural credit programmes was associated with greater economic security, mobility and decision-making among women. Similarly, Pitt and Khandker (1998) reported that group-based credit programmes could influence household behaviour and generate welfare benefits, particularly for women. However, Kabeer (2001) cautioned that access to credit should not automatically be considered empowerment, as the actual control women exercise over financial resources is equally important.

The Indian evidence has generally supported the positive role of SHGs. Moyle et al. (2006) found improvements in personal and economic empowerment among rural women participating in SHGs. Swain and Wallentin (2009) also reported a positive relationship between microfinance participation and women's empowerment in India. Sanyal (2009) highlighted the importance of collective action and social capital, suggesting that SHGs provide women with opportunities to develop networks and participate in collective activities.

At the same time, the evidence is not uniformly positive. Sahu (2015) found that longer SHG participation was associated with economic and political empowerment, but the relationship with social empowerment was weaker. Similarly, Singh (2017), in the context of Himachal Pradesh, observed that SHGs contributed to financial autonomy and participation, while also noting that the level of empowerment achieved by women remained below expectations. These findings suggest that SHG participation may influence different dimensions of empowerment in different ways.

2.2 SHGs and Financial Inclusion

SHGs have also been viewed as an important mechanism for connecting rural women with formal financial institutions. Bhuvana and Vasantha (2016) found that SHG-bank linkage contributed to financial inclusion, although the extent of inclusion varied across regions. Vinodhini and Vaijayanthi (2016) similarly reported improvements in the financial and social position of rural women participating in SHGs.

More recent evidence has strengthened this relationship. Kumar et al. (2021), using panel data from rural women across five Indian states, found that SHG membership significantly improved overall empowerment, particularly in relation to control over income and credit-related decision-making. Roy and Patro (2025) examined women's financial inclusion through a women-centric index and found that SHG participation significantly improved financial inclusion. Their study is particularly relevant because it considers not only access to financial services but also women's autonomy in using them.

These findings indicate that SHGs can act as a bridge between rural women and formal financial institutions. However, financial inclusion should not be understood simply in terms of having access to banking services. The ability to use and control financial resources is equally important (Kabeer, 2001; Roy & Patro, 2025).

2.3 SHGs and Socio-Economic Development

A further strand of research has examined whether SHGs contribute to broader improvements in household livelihoods and socio-economic conditions. Deininger and Liu (2013) found that participation in an innovative SHG model in India was associated with income diversification, consumption smoothing and women's empowerment. Patel et al. (2018) also reported improvements in economic, social and political empowerment among rural women following SHG participation, with longer membership being associated with greater empowerment.

Kumari et al. (2020) found that SHGs supported women's involvement in income-generating activities and contributed to their social and economic empowerment. Ahemad and Katoch (2022) similarly found that SHGs contributed to increased income and employment among rural women. More recently, Ghosh et al. (2024) reported a positive association between SHG intervention, entrepreneurship and economic and socio-cultural empowerment.

However, the benefits of SHGs are not necessarily uniform. Ahmad et al. (2020) found that although poorer women were more likely to join SHGs, the poorest households were less likely to remain members over time. This highlights the importance of examining not only participation but also the actual experiences and outcomes of SHG members.

2.4 Overall Assessment of the Literature

The existing literature broadly supports the view that SHGs can contribute to financial inclusion, women's empowerment and socio-economic development. The evidence suggests that SHGs may provide women with greater access to savings and credit, opportunities for income generation, improved confidence and greater participation in household and community decisions (Brody et al., 2017; Kumar et al., 2021).

At the same time, the literature also shows that SHG membership does not automatically result in empowerment. The outcomes depend on women's ability to control financial resources, the duration and quality of participation, livelihood opportunities and the wider social environment. Thus, the relationship between financial inclusion and empowerment deserves further empirical examination.

3. Research Gap

The review of previous studies indicates that considerable research has examined SHGs in relation to financial inclusion, women's empowerment and socio-economic development. However, these dimensions have often been examined separately rather than within an integrated framework. Some studies focus mainly on financial inclusion, while others concentrate on empowerment or livelihood outcomes.

Further, much of the existing research compares SHG members with non-members or examines the overall impact of SHG participation. Comparatively less attention has been given to understanding how financial inclusion is related to women empowerment and socio-economic development among women who are already SHG members.

There is also scope to examine the predictive relationship between these dimensions. In particular, limited research has simultaneously examined whether financial inclusion predicts women empowerment and socio-economic development and whether these dimensions together contribute to the overall satisfaction of SHG members.

The present study addresses this gap by examining financial inclusion, women empowerment and socio-economic development within a common empirical framework. It therefore focuses not merely on whether women participate in SHGs, but on whether differences in their level of financial inclusion are associated with differences in empowerment, socio-economic development and overall satisfaction.

Need of the Study

Self-Help Groups (SHGs) have emerged as an important means of improving the financial and socio-economic conditions of rural households. By encouraging regular savings, providing access to credit and connecting members with formal financial services, SHGs can play an important role in promoting financial inclusion. Therefore, it is necessary to understand the extent to which SHG membership has helped members develop saving habits, access banking and credit facilities, improve financial literacy and reduce dependence on informal sources of finance.

Financial inclusion is also closely connected with women's empowerment. Access to financial resources and greater involvement in financial activities may help women participate more actively in household decisions, develop confidence and leadership skills, and become financially independent. Hence, there is a need to examine whether greater financial inclusion among SHG members is associated with higher levels of women empowerment.

Further, the benefits of SHGs may extend beyond individual financial inclusion and empowerment to the socio-economic development of households. Improvements in income, savings, living standards, education, healthcare and financial security can contribute to the overall well-being of rural families. Therefore, the present study seeks to examine the relationship between financial inclusion, women empowerment and socio-economic development among SHG members. The findings may provide useful insights into the broader contribution of SHGs to rural development and help identify areas where SHG programmes can be further strengthened.

Objectives of the Study

1. To assess the role of Self-Help Groups in promoting financial inclusion among members.
2. To examine the relationship between financial inclusion and women empowerment among SHG members.
3. To examine the relationship between financial inclusion, women empowerment and socio-economic development among SHG members.

Hypotheses of the Study

- H01- There is no significant relationship between financial inclusion and women empowerment among SHG members.
- H02- There is no significant relationship between financial inclusion and socio-economic development among SHG members.
- H03-Financial inclusion does not significantly predict women empowerment among SHG members.
- H04-Financial inclusion does not significantly predict socio-economic development among SHG members.
- H05-Financial inclusion, women empowerment and socio-economic development do not significantly predict overall satisfaction among SHG members.

Research Methodology

The study adopts a descriptive and analytical research design to examine the role of Self-Help Groups (SHGs) in the financial and socio-economic empowerment of rural women. The study is based mainly on primary data collected from SHG members through a structured questionnaire. A total of 180 valid responses were considered for the analysis which was collected from Shimla district of Himachal Pradesh. The questionnaire covered three major dimensions-financial inclusion, women empowerment and socio-economic development-along with respondents' overall satisfaction with SHG participation. The statements were measured on a five-point Likert scale.

The collected data were analysed using IBM SPSS Statistics. Mean and standard deviation were used to understand the overall responses and variation among respondents. Pearson's correlation analysis was used to examine the relationship between financial inclusion, women empowerment and socio-economic development. Regression analysis was employed to assess whether financial inclusion significantly predicts women empowerment and socio-economic development, and whether financial inclusion, women empowerment and socio-economic development jointly predict overall satisfaction.

The hypotheses were tested at the 5% level of significance. A p-value below 0.05 was considered evidence of a statistically significant relationship or predictive effect. The analysis therefore focuses not only on whether SHG members perceive improvements in their financial and socio-economic lives, but also on how these dimensions are related to one another.

Table-1: Demographic Profile of Respondents

Demographic Factor	Category	Frequency	Percentage (%)
Age	Below 30 Years	70	38.9
	30–50 Years	92	51.1
	Above 50 Years	18	10
Education	Illiterate/Primary	34	18.9
	Secondary/Higher Secondary	93	51.7
	Degree/Diploma & Others	53	29.5
Occupation	Homemaker	44	24.4
	Agriculture	45	25
	Self-Employed	34	18.9
	Wage Labour/Other	57	31.7
Monthly Household Income	Below ₹10,000	73	40.6
	₹10,000–₹20,000	70	38.9
	Above ₹20,000	37	20.6
SHG Membership Duration	Less than 1 Year	97	53.9
	1–3 Years	57	31.7
	More than 3 Years	26	14.4

Source: Data Collected Through Questionnaire

The demographic profile indicates that most respondents were 30-50 years old (51.1%) and had secondary or higher-secondary education (51.7%). Agriculture (25.0%) and homemaking (24.4%) were the major occupations. A considerable proportion of respondents (40.6%) belonged to households with monthly income below ₹10,000, indicating a relatively lower-income rural population. Further, 53.9% of respondents had been SHG members for less than one year, while 31.7% had 1-3 years of membership.

Interpretation and Analysis

Table-2: Reliability Analysis of the Study Variables

Construct	No. of Items	Cronbach's Alpha	Reliability
Financial Inclusion	10	0.898	Excellent
Women Empowerment	10	0.894	Excellent
Socio-Economic Development	10	0.863	Good
Overall Satisfaction	5	0.803	Good
Overall Scale	35	0.955	Excellent

Source: Data Collected Through Questionnaire

The reliability analysis indicates that all four constructs have acceptable to excellent internal consistency, with Cronbach's Alpha values ranging from 0.803 to 0.898. Financial Inclusion shows the highest reliability ($\alpha = 0.898$), followed by Women Empowerment ($\alpha = 0.894$), Socio-Economic Development ($\alpha = 0.863$) and Overall Satisfaction ($\alpha = 0.803$). Since all values are above the commonly accepted threshold of 0.70, the scales are considered reliable for further analysis.

Table-3: Descriptive Statistics of Major Study Variables

Variable	N	Mean	Std. Deviation
Financial Inclusion	180	3.882	0.668
Women Empowerment	180	4.031	0.55
Socio-Economic Development	180	3.979	0.514
Overall Satisfaction	180	4.064	0.553

Source: Data Collected Through Questionnaire

The descriptive results show that respondents generally had a positive perception of the role of SHGs in their financial and social lives. Among the four dimensions, Overall Satisfaction recorded the highest mean score (4.064), indicating that most respondents were satisfied with their SHG experience and viewed SHGs positively. Women Empowerment also received a high mean score (4.031), suggesting that SHG membership is associated with improvements in confidence, participation in household decisions, financial independence and other aspects of empowerment.

The mean score for Socio-Economic Development was 3.979, showing that respondents generally felt that SHGs had contributed to improvements in household income, savings, living standards and other socio-economic conditions. Financial Inclusion recorded a mean of 3.882, which, although the lowest among the four dimensions, still reflects a positive response towards the role of SHGs in promoting savings, access to banking and credit, financial literacy and awareness of financial schemes.

The standard deviation values range from 0.514 to 0.668, indicating that responses were relatively consistent across the respondents. Overall, the findings suggest that SHGs are perceived positively by the respondents, particularly in terms of satisfaction and women empowerment, while also making a meaningful contribution to financial inclusion and socio-economic development.

Table-4: Correlation among different variables of SHGs

Variables	Financial Inclusion	Women Empowerment	Socio-Economic Development	Overall Satisfaction
Financial Inclusion	1	0.781**	0.656**	0.584**
Women Empowerment	0.781**	1	0.804**	0.698**
Socio-Economic Development	0.656**	0.804**	1	0.783**
Overall Satisfaction	0.584**	0.698**	0.783**	1

Data analyzed using IBM SPSS 20

Note: Correlation is significant at the 0.01 level (2-tailed). N = 180.

The correlation results show that Financial Inclusion, Women Empowerment, Socio-Economic Development, and Overall Satisfaction are positively related to each other among the SHG members included in the study. The relationship between Financial Inclusion and Women Empowerment is particularly strong ($r = 0.781$, $p < 0.01$), suggesting that women who experience greater access to savings, credit, banking facilities, financial literacy and other formal financial services also tend to report higher levels of empowerment. Financial Inclusion also has a significant positive relationship with Socio-Economic Development ($r = 0.656$, $p < 0.01$). This indicates that better financial inclusion among SHG members is associated with improvements in household income, savings, living standards, income-generating activities and the ability to manage financial difficulties. A very strong positive relationship is observed between Women Empowerment and Socio-Economic Development ($r = 0.804$, $p < 0.01$). This suggests that empowerment is closely connected with the socio-economic well-being of SHG members and their families. As women gain greater confidence, participate in financial decisions, develop leadership abilities and become more financially independent, they also tend to report better socio-economic conditions. The findings further show that Overall Satisfaction is positively related to Financial Inclusion ($r = 0.584$, $p < 0.01$), Women Empowerment ($r = 0.698$, $p < 0.01$) and Socio-Economic Development ($r = 0.783$, $p < 0.01$). Among these relationships, the association between Socio-Economic Development and Overall Satisfaction is particularly strong, indicating that improvements in the economic and social conditions of members are closely associated with their satisfaction with their SHG experience. Overall, the findings suggest that SHGs may play an important role in improving financial inclusion, strengthening women's empowerment and contributing to the socio-economic well-being of rural households. However, since correlation measures association rather than cause and effect, these results should not be interpreted as proof that one variable directly causes changes in another.

Table-5: Linear Regression Analysis of Financial Inclusion and Women Empowerment

Predictor Variable	B	Std. Error	Standardized β	t-value	p-value
Constant	1.535	0.152	—	10.115	<0.001
Financial Inclusion	0.643	0.039	0.781	16.695	<0.001

Model Statistics: $R = 0.781$; $R^2 = 0.610$; Adjusted $R^2 = 0.608$; $F(1, 178) = 278.724$; $p < 0.001$

The linear regression analysis was conducted to examine whether financial inclusion significantly predicts women empowerment among SHG members. The results indicate a strong and statistically significant relationship between the two variables. The regression model is statistically significant ($F = 278.724$, $p < 0.001$), indicating that financial inclusion is a significant predictor of women empowerment. The model explains approximately 61.0% of the variation in women empowerment ($R^2 = 0.610$). The standardized regression coefficient ($\beta = 0.781$, $p < 0.001$) indicates a strong positive effect of financial inclusion on women empowerment. The unstandardized coefficient ($B = 0.643$) further suggests that a one-unit increase in financial inclusion is associated with an estimated 0.643-unit increase in women empowerment. Overall, the findings suggest that greater financial inclusion among SHG members is strongly associated with higher levels of women empowerment.

Table-6: Linear Regression Analysis of Financial Inclusion and Socio-Economic Development

Predictor Variable	B	Std. Error	Standardized β	t-value	p-value
Constant	2.019	0.171	—	11.786	<0.001
Financial Inclusion	0.505	0.043	0.656	11.61	<0.001

Model Statistics: $R = 0.656$; $R^2 = 0.430$; Adjusted $R^2 = 0.427$; $F(1,178) = 134.792$; $p < 0.001$

The linear regression analysis was conducted to examine whether financial inclusion significantly predicts the socio-economic development of SHG members. The results show that the regression model is statistically significant ($F = 134.792$, $p < 0.001$), indicating that financial inclusion is a significant predictor of socio-economic development. The model explains approximately 43.0% of the variation in socio-economic development ($R^2 = 0.430$). The standardized regression coefficient is positive and statistically significant ($\beta = 0.656$, $p < 0.001$), indicating that higher levels of financial inclusion are associated with higher levels of socio-economic development. The unstandardized coefficient ($B = 0.505$) suggests that a one-unit increase in financial inclusion is associated with an estimated 0.505-unit increase in socio-economic development. These findings indicate that access to financial services, savings, credit, financial literacy and related facilities associated with SHG participation are positively associated with the socio-economic well-being of members.

Table-7: Linear Regression Analysis of Financial Inclusion, Women Empowerment and Socio-Economic Development

Predictor	B	Std. Error	Standardized β	t	p-value
Constant	0.592	0.204	—	2.895	0.004
Financial Inclusion	0.043	0.061	0.052	0.709	0.479
Women Empowerment	0.158	0.094	0.157	1.675	0.096
Socio-Economic Development	0.67	0.084	0.622	8.015	<0.001

Model statistics: $F(3,176) = 98.758$, $p < 0.001$, $R^2 = 34.361 / 54.772 = 0.627$, Adjusted $R^2 \approx 0.621$.

A multiple linear regression analysis was conducted to examine whether Financial Inclusion, Women Empowerment and Socio-Economic Development predict the Overall Satisfaction of SHG members. The regression model was statistically significant, $F(3,176) = 98.758$, $p < 0.001$, indicating that the three predictors collectively have a significant relationship with overall satisfaction. The model explains approximately 62.7% of the variation in overall satisfaction ($R^2 = 0.627$), indicating a substantial explanatory power.

However, when the three variables are considered together, Socio-Economic Development emerges as the only statistically significant predictor of Overall Satisfaction ($\beta = 0.622$, $p < 0.001$). Financial Inclusion does not have a statistically significant independent contribution to overall satisfaction ($\beta = 0.052$, $p = 0.479$), while Women Empowerment also does not reach the conventional 5% significance level ($\beta = 0.157$, $p = 0.096$). The results therefore suggest that, although financial inclusion and women empowerment are positively related to satisfaction at the bivariate level, socio-economic development has the strongest independent association with overall satisfaction when all three variables are considered simultaneously.

Findings of the Study

1. The study found that SHG members reported a positive level of financial inclusion, with a mean score of 3.882, indicating that SHGs have contributed to improving access to savings, credit facilities, banking services, and financial awareness among members.
2. Women empowerment recorded a high mean score of 4.031, suggesting that SHG participation has enhanced members' confidence, decision-making ability, leadership skills, and financial independence.
3. Socio-economic development also showed a favorable mean score of 3.979, indicating improvements in household income, savings, living standards, and income-generating activities among SHG members.
4. A strong positive and significant relationship was found between financial inclusion and women empowerment ($r = 0.781$, $p < 0.01$). Therefore, H01 was rejected.
5. Financial inclusion was positively and significantly related to socio-economic development ($r = 0.656$, $p < 0.01$). Therefore, H02 was rejected.
6. Regression analysis revealed that financial inclusion significantly predicts women empowerment ($\beta = 0.781$, $p < 0.001$), explaining about 61% of the variation in women empowerment. Hence, H03 was rejected.
7. Financial inclusion was also found to significantly predict socio-economic development ($\beta = 0.656$, $p < 0.001$), explaining about 43% of the variation in socio-economic development. Therefore, H04 was rejected.
8. The multiple regression model was statistically significant and explained 62.7% of the variation in overall satisfaction. Socio-economic development emerged as the strongest predictor of overall satisfaction ($\beta = 0.622$, $p < 0.001$), while financial inclusion and women empowerment did not make significant independent contributions when all variables were considered together. Thus, H05 was partially rejected.

Discussion

The findings of the study show that Self-Help Groups (SHGs) have an important role in improving the financial and socio-economic position of rural women. The results indicate a strong positive relationship between financial inclusion and women empowerment. This suggests that women who have better access to and use of financial services are also more likely to experience greater confidence, participation in household financial decisions and economic independence. This finding is consistent with earlier studies by Hashemi et al. (1996), Moyle et al. (2006), Swain and Wallentin (2009), and Kumar et al. (2021), which found that participation in group-based financial programmes can strengthen different aspects of women's empowerment.

The study also found a significant positive relationship between financial inclusion and socio-economic development. This indicates that access to savings, credit and other financial services may help women manage household finances, undertake income-generating activities and improve their overall economic conditions. The finding is broadly consistent with Deininger and Liu (2013) and Ahemad and Katoch (2022), who reported positive socio-economic outcomes associated with SHG participation.

An important finding is that financial inclusion, women empowerment and socio-economic development together explain a substantial proportion of the variation in overall satisfaction among SHG members. However, socio-economic development emerged as the strongest predictor when the three dimensions were considered together. This suggests that although access to finance and greater empowerment are important, women may feel more satisfied with SHG participation when these benefits result in visible improvements in their everyday economic and social lives.

Overall, the findings suggest that SHGs should not be viewed only as a source of small loans or savings. Their wider value lies in creating opportunities for women to become financially active, participate in decision-making and improve their socio-economic conditions. At the same time, financial access alone may not be sufficient; its benefits are likely to be greater when women are able to exercise control over financial resources and convert them into meaningful improvements in their lives.

Conclusion

The study concludes that Self-Help Groups play a significant role in promoting financial inclusion among rural households. SHGs provide members with access to formal financial services, encourage savings habits, improve credit availability, and enhance financial awareness. These benefits contribute substantially to the economic and social well-being of members. The findings further indicate that financial inclusion is closely associated with women empowerment. Women who have greater access to financial resources and services tend to exhibit higher levels of confidence, participation in decision-making, and leadership abilities. The study also confirms that financial inclusion contributes positively to the socio-economic development of SHG members by improving household income, savings, and living standards.

Overall, the results suggest that SHGs serve as an effective mechanism for achieving financial inclusion, empowering women, and promoting socio-economic development in rural areas. Among all factors examined, socio-economic development was found to be the most important determinant of members' overall satisfaction with SHGs. Therefore, strengthening the socio-economic benefits derived from SHG participation can further enhance member satisfaction and the long-term sustainability of SHGs.

Suggestions

1. SHGs should continue to strengthen financial literacy programmes to improve members' understanding of banking services, savings schemes, digital payments, and credit management.
2. Financial institutions should simplify access to credit and financial products for SHG members, particularly for women from low-income households.
3. Capacity-building programmes should be organized regularly to enhance leadership skills, entrepreneurship, and decision-making abilities among women members.
4. Government agencies and financial institutions should provide greater support for income-generating activities and micro-enterprises promoted through SHGs.
5. Special efforts should be made to improve the socio-economic conditions of members through skill development, livelihood support, and market linkages, as socio-economic development has the strongest influence on member satisfaction.
6. SHGs should encourage greater participation of members in community and developmental activities to further strengthen empowerment and social inclusion.

7. Continuous monitoring and evaluation of SHG programmes should be undertaken to ensure that the benefits of financial inclusion translate into long-term socio-economic improvements for members and their families.

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