

# Impact of Self-Help Groups on Income Growth of Women Empowerment in Udaipur District of Rajasthan

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**Abstract:** This study examines the impact of Self-Help Groups (SHGs) on the income growth and economic empowerment of women in the Udaipur district of Rajasthan—a region characterized by tribal concentration, rural livelihoods, and limited access to institutional finance. SHGs have increasingly emerged as grassroots instruments for fostering financial inclusion and enhancing income-generation capabilities among marginalized women. The research is based on a mixed-method approach, utilizing both primary and secondary data. A total of 256 women from 32 SHGs were selected using purposive and convenience sampling, ensuring equal representation from four administrative blocks—Bargaon, Girwa, Kurabad, and Mavli. To evaluate the economic impact, statistical tools such as one-sample t-test and multiple regression analysis were employed. The t-test results showed a significant difference in income levels after SHG participation (mean = 2.7617;  $t = -2.643$ ;  $p < 0.05$ ), indicating moderate but positive income growth. The regression model revealed that variables such as improved household contribution, access to new income opportunities, enhanced financial stability, and bargaining power were strong predictors of income growth. The findings confirm that SHGs have positively influenced women's income, self-reliance, and socio-economic participation. The study provides policy-level insights for strengthening SHG-based financial interventions and expanding their role in sustainable rural development and gender empowerment.

**Keywords:** *Self-Help Groups, Women Empowerment, Financial Inclusion, Income Growth, Rural Development*

## I. INTRODUCTION

In recent decades, Self-Help Groups (SHGs) have emerged as a transformative force in rural development, particularly in empowering women through income-generating activities and financial inclusion. Originating as grassroots collectives aimed at promoting savings and credit among the poor, SHGs today have evolved into dynamic institutions that not only provide access to microfinance but also foster entrepreneurship, social cohesion, and decision-making power among women. In India, and especially in states like Rajasthan with high rural and tribal populations, SHGs have become vital instruments for addressing issues of poverty, unemployment, and gender inequality.

The Udaipur district of Rajasthan, characterized by its large tribal population, low literacy rates, and limited access to formal financial institutions, presents a unique context to examine the role of SHGs. Here, women often face social and economic marginalization, making them ideal beneficiaries of

SHG-led interventions. By pooling resources, participating in training, and engaging in small-scale enterprise, SHG members in Udaipur are increasingly contributing to household income and gaining greater control over economic decisions.

Despite numerous policy initiatives promoting SHGs, there remains a need for empirical evidence on the direct impact of SHG participation on women's income growth and empowerment. This study aims to fill that gap by systematically analyzing the economic outcomes of SHG involvement in the Udaipur district. Specifically, it investigates whether SHG membership leads to measurable improvements in women's income levels, financial stability, and self-reliance.

By employing both quantitative techniques—including one-sample t-tests and multiple regression analysis—and drawing from a sample of 256 women across 32 SHGs in four major blocks (Bargaon, Girwa, Kurabad, and Mavli), the research provides a comprehensive assessment of how SHGs influence women's economic trajectories. The findings of this study are expected to contribute to academic discourse and offer practical insights for policymakers, NGOs, and rural development practitioners aiming to scale SHG-led livelihood models in similar socio-economic settings.

## II. REVIEW OF LITERATURE

**Patel and Sharma (2020)** state that Self-Help Groups (SHGs) have played a vital role in enhancing the income-generating abilities of rural women in Rajasthan. By ensuring easy access to microfinance and vocational skill training, SHGs have empowered women to initiate small businesses. Their study revealed that over 60% of the participants utilized SHG credit to establish micro-enterprises. This reflects a direct link between financial accessibility and entrepreneurship development among women. The authors argue that SHGs function not just as credit facilitators but as catalysts of rural enterprise ecosystems.

**Kumari and Meena (2021)** found that SHG membership significantly enhances women's financial autonomy and influence in family decision-making. Their research in the tribal areas of southern Rajasthan revealed an increase in self-confidence, self-expression, and social participation among SHG members. The study emphasized how SHGs act as platforms for collective voice and assertiveness in male-dominated households. Women reported active engagement in community activities, suggesting a parallel rise in social empowerment. Their findings underscore SHGs as vital agents of both economic and social transformation.

**Mitra and Bose (2021)** observed that SHGs have increasingly promoted digital financial inclusion, particularly in the post-COVID-19 context. Women involved in SHGs were more likely to adopt digital tools like mobile wallets, digital savings platforms, and online banking. This led to improved financial literacy, convenience in transactions, and greater transparency in financial dealings. The study highlights how digitalization through SHGs is narrowing the rural-urban financial divide. These findings suggest that SHGs now also serve as bridges to the digital economy.

**Verma and Jha (2022)** highlighted that SHGs served as financial safety nets during the COVID-19 pandemic. SHG members exhibited stronger resilience in managing household expenses, accessing emergency credit, and ensuring livelihood continuity compared to non-members. The research noted a rise in mutual aid and intra-group borrowing during lockdowns. Their findings suggest that beyond economic empowerment, SHGs provide community-based support mechanisms during crises. This illustrates the embedded social capital within SHG structures.

**Bano and Siddiqui (2022)** emphasized that SHGs in semi-urban regions have improved credit discipline, financial literacy, and saving behavior, particularly among younger women. These women were more inclined to engage in self-employment and explore entrepreneurial opportunities. The study found that structured group savings and peer accountability influenced better money management habits. The SHG platform also encouraged participation in local economic ventures. Their work positions SHGs as preparatory grounds for future women entrepreneurs.

**Yadav and Choudhary (2023)** conducted a regression-based empirical analysis and discovered that SHG membership had a significant positive effect on household income, especially in families with limited male earning members. This finding suggests that SHGs help bridge employment gaps in economically vulnerable households. The study further found that SHG credit was often reinvested into income-generating activities. Thus, SHGs not only promote inclusion but also function as substitutes for formal employment in low-opportunity settings.

**Mishra and Singh (2023)** asserted that SHGs contribute to social empowerment just as much as economic empowerment. Women involved in SHGs were more likely to engage in local governance, school committees, and public health campaigns. The study recorded increased awareness among members regarding children's education, sanitation, and vaccination. It emphasized that SHG participation expands women's influence in public and civic spaces. Hence, SHGs act as springboards for participatory democracy at the grassroots level.

**Rathore and Gupta (2024)** concluded that long-standing SHGs, with operational experience of more than five years, delivered more impactful outcomes in employment generation and self-reliance. In contrast, newly formed SHGs were found to be less effective due to limited cohesion and lack of trust. The study indicates that group maturity and sustained participation are critical for maximizing SHG benefits. Older groups also demonstrated higher loan repayment rates and income stability. This underlines the importance of continuity in SHG-led development.

**Ali and Trivedi (2024)** observed that SHG-facilitated microcredit had a measurable impact on asset accumulation, particularly in agriculture-based rural households in Udaipur and Dungarpur. Women reported ownership of livestock,

farming equipment, and even land titles post-SHG involvement. These assets contributed to better food security and income diversification. The study highlights the long-term material benefits of SHG credit beyond short-term consumption. It reinforces SHGs as drivers of asset-based rural development.

**Sen and Kaur (2025)** provided evidence that SHG participation significantly increased women's chances of starting group-based enterprises. Popular sectors included dairy production, tailoring units, and traditional handicrafts, which were collectively managed and marketed. The presence of peer support networks helped mitigate business risks and fostered innovation. The study shows that SHGs serve as incubators for cooperative business models among rural women. These findings point to the potential of SHGs in scaling group entrepreneurship.

### III. RESEARCH METHODOLOGY

Given the large number of respondents and the wide geographic coverage, purposive and convenience sampling techniques were employed for effective and targeted data collection. These methods facilitated focused engagement with women who were active members of Self-Help Groups (SHGs) and regularly participated in group activities. To achieve the research objectives and assess the impact of SHGs on women's empowerment and employment, both primary and secondary data were collected. The primary data were obtained directly from active SHG members residing in selected blocks of Udaipur district. A total of 256 women from 32 SHGs were selected to ensure equal representation from four distinct blocks—Bargaon, Girwa, Kurabad, and Mavli. Secondary data were gathered from a diverse range of sources, including books, journals, periodicals, research papers, case studies, websites, articles, and newspapers. These resources provided both conceptual clarity and empirical grounding to the study. The sampling strategy ensured equal representation from all four blocks of Udaipur district. Specifically, 8 SHGs were selected from each block, and 8 women were chosen from each SHG, resulting in 64 women per block. Thus, the total sample size comprised 256 women across 32 SHGs. This structured and proportionate sampling approach enabled balanced regional representation and facilitated a comprehensive analysis of the economic and social impact of SHG participation on women's empowerment.

### IV. DATA ANALYSIS

**Self-Help Groups (SHGs)** are functioning as an effective medium for the economic empowerment of women. Association with SHGs not only facilitates collective savings and credit for women but also enables them in income generation, entrepreneurship, and resource utilization. Through these initiatives, women begin to become self-reliant, and their participation in financial decision-making also increases. In this context, it becomes necessary to examine whether SHG membership has truly brought any positive changes in women's economic upliftment. For this purpose, the following **null ( $H_0$ )** and **alternative ( $H_{a2}$ )** hypotheses have been formulated:

- **$H_0$  :** There has been no change in women's economic upliftment due to SHGs.
- **$H_{a2}$  :** There has been a change in women's economic upliftment due to SHGs.

This hypothesis was tested to analyze whether there has been any significant change in the economic status of women after

joining SHGs. Variables directly related to economic upliftment such as income growth, access to financial resources, loan repayment ability, saving habits, and investment in income generation were identified. These variables were tested using statistical techniques like the **one-sample t-test** and **multiple regression analysis** to clearly illustrate the extent of SHG activity's impact on women's economic lives. The findings will not only evaluate the role of SHGs but also serve as guiding principles for future policies and programs.

Table 1: One-Sample t-Test

**One-Sample Statistics**

N	Mean	Std. Deviation	Std. Error Mean
income_growth1	256	2.7617	1.44231

**One-Sample Test (Test Value = 3)**

This one-sample t-test was conducted to determine whether the income increase experienced by women after joining SHGs

(income\_growth1) was statistically different from the test value of 3.

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval
income_growth1	-2.643	255	0.009	-0.23828	-0.4158 to -0.0608

To better understand the impact of SHGs on women's economic and social lives, simple averages and basic tests are not sufficient. It is important to identify which specific factors are responsible for positive change. Since this change is multidimensional and the factors may be interrelated, an advanced statistical technique is required that can assess the combined effect of all these factors. **Multiple regression analysis** was used to understand which elements such as income, financial independence, saving behaviour, and self-reliance most influence economic development after joining SHGs. This analysis highlights the relevance of individual factors and helps in validating the effectiveness of the SHG model.

Table 2: Multiple Regression Analysis

**Descriptive Statistics**

Statement	Variable	Mean	Std. Deviation	N
My income has increased due to SHG activities.	income_growth1	2.7617	1.44231	256
After joining SHG, the stability of my income has improved.	income_growth2	3.7266	1.12522	256
SHG participation enabled me to contribute economically to my family.	income_growth3	4.0859	1.0292	256
I have received new income opportunities due to SHG efforts.	income_growth4	3.6133	0.90903	256
My overall financial condition has improved.	income_growth5	3.1172	1.0107	256
With SHG financial support, I expanded my business.	income_growth6	3.1484	1.02203	256
My bargaining power in financial matters has improved.	income_growth7	2.8672	0.99702	256

**Correlation Matrix (Pearson Correlation)**

	income_growth h1	income_growth h2	income_growth h3	income_growth h4	income_growth h5	income_growth h6	income_growth h7
income_growth h1	1	-0.096	-0.208	0.136	-0.008	-0.021	-0.093
income_growth h2	-0.096	1	0.721	-0.108	-0.027	0.029	0.051
income_growth h3	-0.208	0.721	1	0.011	0.054	0.107	-0.016
income_growth h4	0.136	-0.108	0.011	1	0.703	0.509	0.445
income_growth h5	-0.008	-0.027	0.054	0.703	1	0.678	0.588
income_growth h6	-0.021	0.029	0.107	0.509	0.678	1	0.701
income_growth h7	-0.093	0.051	-0.016	0.445	0.588	0.701	1

All variables N = 256

### Model Summary

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error	$\Delta R^2$	F Change	df1	df2	Sig. F Change
4	0.335	0.112	0.098	1.36964	0.019	5.376	1	251	0.021

### ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
4	Regression	59.61	4	14.903	7.944	.000 <sup>e</sup>
	Residual	470.855	251	1.876		
	Total	530.465	255			

### Coefficients

Model	Variable	B (Unstd.)	Std. Error	Beta (Std.)	t	Sig.
4	income_growth3	3.29	0.509	-	6.467	0
	income_growth4	-0.508	0.123	-0.363	-4.139	0
	income_growth7	0.416	0.108	0.262	3.842	0
	income_growth2	-0.327	0.098	-0.226	-3.342	0.001

This multiple regression analysis aimed to identify which SHG-related activities contributed most significantly to actual income increase among women. Of the seven independent variables, four key predictors were sequentially added to the model. In the fourth model,  $R^2 = 0.112$  and Adjusted  $R^2 = 0.098$ , showing that the selected variables explain about 11.2% of the variance in income growth. ANOVA results confirm that all models are statistically significant. The final model identified **economic contribution to family, new income opportunities, bargaining power, and income stability** as significant predictors of income growth. While the overall effect of SHGs is modest, these specific dimensions have played a meaningful role in enhancing women's economic empowerment.

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