

COVID-19's Socioeconomic Effect on Self-Help Groups: Evidence from Odisha's Hatadihi Block

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ABSTRACT

Self-Help Groups (SHGs) and rural economies were disproportionately impacted by the severe socioeconomic shock produced by the COVID-19 pandemic. This study examines the impact of COVID-19 on SHG members in Hatadihi Blocks in the Keonjhar District of Odisha. Using primary data from 100 respondents, regression analysis, paired sample t-tests, and descriptive statistics, the study proclaims a significant shift toward basic consumption and a decrease in both income and spending of the SHG members. The pandemic also affected formal credit availability, SHG activities, and financial hardship. The regression analysis results showed that expenditure declined throughout the crisis due to the influence of income; still, income remained a major determinant of expenditure. The study also highlights the need for targeted policy initiatives to provide sustainable livelihoods and strengthen the financial resilience of underprivileged rural households.

Keywords: Self-Help Groups, COVID-19, Rural Economy, Financial Inclusion, Income, Expenditure

JEL Codes: O18, G21

1. Introduction

The COVID-19 pandemic was an uncertain worldwide crisis that devastated economies, labour markets, and the standard of living of people in numerous nations. India's economic activities abruptly stopped during the countrywide lockdown in March 2020, which disproportionately affected rural households and informal labour. Because a lot of people in India work in the informal sector, the restrictions caused by the pandemic led to big losses in income, joblessness, and more economic instability (Kesar et al., 2021). Dev and Sengupta (2020) pointed out that the crisis exacerbated pre-existing structural vulnerabilities in the Indian economy, especially in rural regions where employment opportunities are scarce and social protection systems are insufficient.

People in rural areas of India have trouble getting to formal financial systems, which makes them more reliant on community-based financial institutions like Self-Help Groups (SHGs). In the last few decades, SHGs have become an important tool for promoting financial inclusion, especially for women and people from marginalized groups. The SHG–Bank linkage program has made it much easier for people to get microcredit, encouraged them to save money, and helped them start businesses that make money. This has helped reduce poverty and empower people socially and economically (Swain & Wallentin, 2009). SHGs not only help people with money, but they also help build social capital and encourage people to work together, which makes rural households more resilient.

The outbreak of COVID-19 demonstrated the significant vulnerability of revenue shocks in rural areas due to unorganized financial networks, lockdowns, travel restrictions, and supply chain issues, all hampering marketing and manufacturing. Rural households experienced a significant decline in their income and were forced to alter their spending habits in order to prioritize essential necessities, which resulted from the economy's instability and their reduced purchasing power (Kesar et al., 2021; Narayanan & Saha, 2021). The epidemic disproportionately impacted the livelihoods of those who participated in unofficial and self-help group activities. They faced employment losses, increased unpaid caregiving obligations, and limited access to financial resources (Deshpande, 2020).

SHGs had significant challenges in managing their institutional businesses during the pandemic. Restrictions on face-to-face meetings made it more difficult for organizations to collaborate, save money, and obtain financing. SHGs were less beneficial to rural families during difficult times due to the decrease in their active participation. According to available data, SHGs supported community-level responses during COVID-19, but their economic viability was jeopardized by dwindling options for revenue generation and difficulties with repayment (Ceballos et al., 2020).

The research on the impact of COVID-19 on the economy is growing, but the majority of it is either macro-level studies or depends on secondary data, making it challenging to determine how it affects certain regions. There is a significant lack of empirical research using primary data and rigorous statistical techniques that focuses on SHG members in particular regional contexts, like Odisha.

With this backdrop, the goal of this study is to look at how COVID-19 has affected the social and economic lives of SHG members in Hatadihi Block of Keonjhar District, Odisha. The study uses primary data to look at changes in income, spending, and financial conditions to show how much the pandemic affected people on a small scale. It also adds to the body of research on rural development and informal financial systems.

2. Review of Literature

The concept of Self-Help Groups (SHGs) has become an extremely important institution in facilitating financial inclusion, alleviating poverty, and empowering women in developing nations. In India, the SHG-Bank linkage scheme has greatly increased access to institutional credit among marginalized communities, with special focus on empowering women who have been denied access to banks. Studies reveal that involvement in SHGs not only increases income-generating activities but also boosts savings and empowerment among other socio-economic benefits (Swain & Wallentin, 2009). Similarly, studies suggest that SHGs reduce dependence on informal lending practices and strengthen rural credit systems, resulting in greater financial stability (Karmakar, 1999).

Apart from promoting financial inclusion, Self-Help Groups (SHGs) have made substantial contributions to social capital and collective resilience. This is because they encourage cooperation, mutual assistance, and solving of problems at the community level, which is very crucial when maintaining livelihoods in rural areas. Various pieces of research have revealed that membership in SHGs promotes higher standards of living, as well as micro-business enterprises, which provide more consistent income streams in the absence of economic instability (Vinodhini & Vaijyanthi, 2016). However, most of such research is conducted in a relatively stable economy.

The outbreak of COVID-19 was a major economic shock, affecting informal sector workers and rural households particularly. It has been found from empirical research that the lockdown led to job loss, a decrease in incomes, and disturbances in livelihood activities among Indians. The impact of the virus on the informal sector is highlighted by Kesar et al. (2021), who claim that such people became more vulnerable due to the outbreak of the pandemic. Along this line,

Ceballos et al. (2020) present empirical evidence that Indian farmers were faced with lower incomes and problems in production processes due to limitations in mobility and market access.

The impact of the COVID-19 pandemic at the microeconomic level has greatly changed the consumption patterns and expenditure of individuals. Studies show that people adjusted their spending patterns, focusing on essentials and reducing unnecessary spending due to reduced incomes and increased uncertainties (Narayanan & Saha, 2021). The impact of the pandemic on women has been widely reported; it is evident that the pandemic has led to higher job losses and higher workload for women, thus affecting their economic activities (Agarwal, 2021; Deshpande, 2020).

The performance of Self-Help Groups (SHGs) was negatively affected by the pandemic. Lockdowns and social distancing policies have made it difficult for the groups to meet regularly, mobilize savings, and access microfinance services. Considering the dependence of SHGs on interactions and peer reviews, the impact has compromised the institutional ability of SHGs to support their members during the pandemic. The disruption in the operations of SHGs has worsened the financial position of its members, particularly in rural areas with limited financial institutions.

Though there is increasing academic literature on the topic of COVID-19 and its economic impact, most of these works are primarily focused at a macro level, or use secondary sources for their data collection. However, there are few empirical literatures at a micro level that uses primary data sources and statistics to capture the experience of SHG members. This is especially true when considering regions like Odisha, where the rural economy is heavily dependent on informal finance.

This paper helps in addressing the above research gap by looking into the socio-economic effects of the coronavirus pandemic on the lives of SHG members in the Hatadihi Block of Keonjhar district, Odisha. The following socio-economic aspects have been considered, namely income, expenditure, financial difficulties, credit facilities, etc.

In order to empirically investigate these aspects, the following testable hypotheses are formulated:

H₀₁: There is no significant difference in the income of SHG members before and during COVID-19.

H₀₂: There is no significant difference in the expenditure patterns of SHG members before and during COVID-19.

To test these hypotheses, the study adopts a quantitative approach based on primary data. The details of the data and methodology are presented in the following section.

3. Data and Methodology

3.1 Data Source and Study Area

The study is based on primary data. Primary data were collected through a structured questionnaire from 100 SHG members in Hatadihi Block of Keonjhar District, Odisha, selected due to the active presence of SHGs in the region.

3.2 Sampling Technique

A multi-stage purposive sampling method was adopted. Hatadihi Block was selected in the first stage, followed by two Gram Panchayats (Salania and Danar) based on SHG activity. In the final stage, respondents were randomly selected from SHG members within the selected areas.

3.3 Analytical Framework and Tools

The study employs both descriptive and inferential statistical techniques. Descriptive statistics summarize the socio-economic characteristics of respondents. A paired sample t-test is used to examine differences in income and expenditure before and during COVID-19. Regression analysis is applied to assess the relationship between pandemic-related disruptions and socio-economic outcomes.

3.4 Model Specification

The empirical model is specified as:

$$Y = \beta_0 + \beta_1 X + \epsilon$$

where Y represents socio-economic outcomes such as income or expenditure, X captures COVID-19-related disruption factors, and ϵ is the error term.

4. Data Analysis and Discussion

4.1 Socio-Economic Profile of Respondents

Descriptive analysis shows that most respondents belong to rural households with few income sources and low-income stability, mainly involved in SHG activities. The large number of female respondents highlights the nature of SHGs as financial inclusion tools and the gendered aspect of

the same. Furthermore, the socio-economic profile also indicates that income is mostly derived through small-scale and informal enterprises, leading to a greater vulnerability to economic shocks, for example, the coronavirus pandemic.

4.2 Impact of COVID-19 on Income

In order to test the hypothesis about the impact of the pandemic on the income of SHG members, a paired sample t-test is utilized, as presented in Table 1. The test results reveal a sharp decrease in mean monthly income from ₹11,805 before the coronavirus pandemic to ₹4,155 in the COVID-19 period. Hence, the mean difference is ₹7,649. The estimated t-value is -10.787 and has an associated p-value of 0.000. The significance of the result suggests rejection of the null hypothesis of no difference. As such, it is concluded that the pandemic adversely affected the income of SHG members.

Visual evidence provided by Figure 1 supports this result as it shows a clear shift in the income distribution towards low-income classes during the pandemic period. Prior to COVID-19, many respondents belonged to middle-income groups, especially in the range of ₹3,000-₹12,000. However, during the pandemic, income distribution shifted significantly to the low-income class (₹0-₹3,000), with about 90 respondents falling in that category.

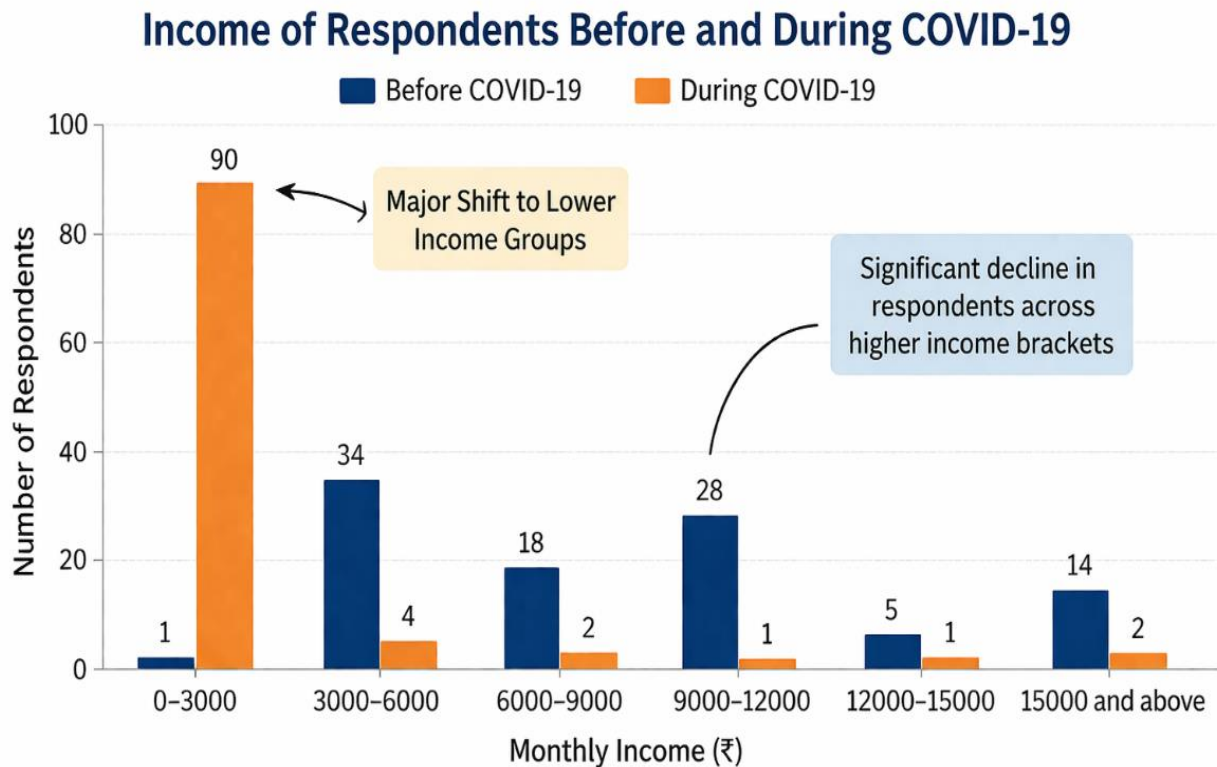
Thus, the combination of quantitative and qualitative analysis confirms a significant income contraction. In particular, the reasons for this phenomenon may be disruptions in income generation processes, demand, and limited mobility and market access due to lockdown measures. Overall, these results indicate the vulnerability of SHG members' incomes to the effects of the coronavirus crisis.

Table 1: Paired Sample t-Test for Income

Income Period	Mean (₹)	N	Std. Deviation	Std. Error	Mean Difference (₹)	t-value	df	p-value
Before COVID-19	11805.00	100	12238.97	1223.89				
During COVID-19	4155.50	100	9359.71	935.97	7649.50	-10.787	99	0.000

Source: Author's calculation (based on primary survey data).

Fig 1: Income of Respondents Before and During COVID-19



Source: Author’s calculation (based on primary survey data).

4.3 Impact of COVID-19 on Expenditure

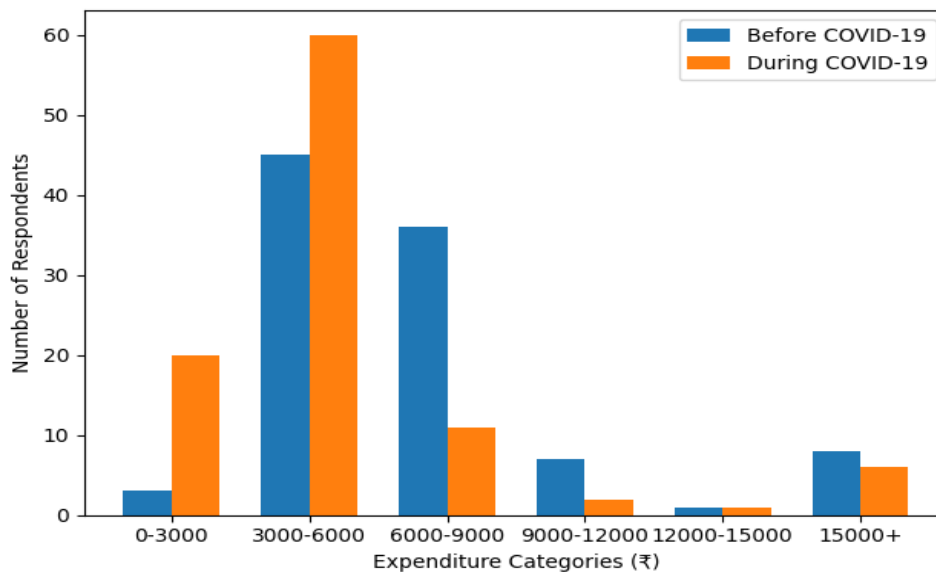
The impact of COVID-19 on the expenditure incurred by members of SHG can be evaluated through a paired sample t-test, as provided in Table 2 below. From the analysis above, the average expenditure per month incurred by the respondent fell from ₹7,564 before COVID-19 to ₹5,599 during COVID-19, with an average of ₹1,965. The t-value of -14.677 and p-value of 0.000 indicate that the observed differences are statistically significant, hence the rejection of the null hypothesis, which shows that there was no impact of COVID-19 on expenditure. Figure 2 below confirms this observation by providing a shift in expenditure incurred by respondents during the period covered by the survey. It is clear that the highest proportion of people incurred expenditure within the range of ₹3,000 to ₹9,000 before COVID-19. During COVID-19, there is a marked shift to the lower bands of expenditure, particularly in the categories ₹0 to ₹3,000 and ₹3,000 to ₹6,000. This demonstrates low incomes and financial constraints among members of SHG, causing a decrease in expenditure.

Table 2: Expenditure of SHG members

Expenditure Period	Mean (₹)	N	Std. Deviation	Std. Error	Mean Difference (₹)	t-value	df	p-value
Before COVID-19	7564.00	100	5627.95	562.79				
During COVID-19	5599.00	100	5127.36	512.74	1965.00	-14.677	99	0.000

Source: Author’s calculation (based on primary survey data).

Figure 2: Expenditure of SHG Members Before and During COVID-19



Source: Author’s calculation (based on primary survey data).

4.4 Financial Challenges and Credit Constraints

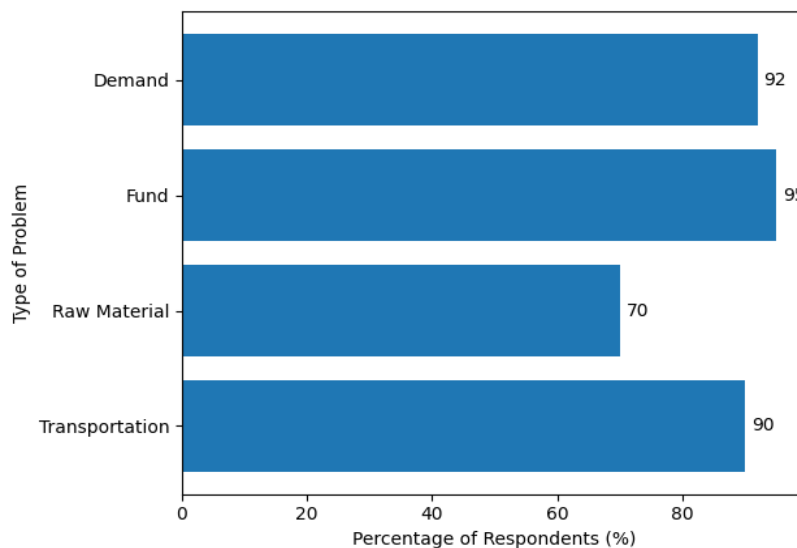
Members of the Self-Help Group faced many challenges during the COVID-19 pandemic because they were not making as much money as they had previously, which made it difficult for them to pay their bills and debts. Many members of the Self-Help Group had to borrow money from friends or family because they were unable to obtain bank loans. They were not making enough money to repay these loans, which was another major issue. Members of Self-Help Groups were likewise prevented from meeting by the COVID-19 pandemic. They found it more

difficult to support one another financially as a result. In general, COVID-19 made financial issues worse for members of SHG and demonstrated their susceptibility to financial difficulties.

4.5 Disruption in SHG Activities

In the study area, the COVID-19 pandemic seriously disrupted the functioning of self-help groups. The groups were unable to hold meetings, collaborate, and reach decisions as a team since members were unable to move around and were required to keep their distance from one another. This made it hard for the Self-Help Groups to work properly and help their members when they needed it most. As you can see in Figure 3, the members of these Self-Help Groups had a lot of problems during the pandemic. The biggest problem was that they did not have money, which 95 percent of the people we talked to said was a major issue. A lot of people, 92 percent, also said that they were selling less of their products, and 90 percent had trouble getting around. Also, 70 percent of the people said it was hard for them to get the materials they needed to make things. All of this shows that the pandemic affected the Self-Help Groups in ways both in terms of getting things they needed and selling what they made. All these problems together meant that the Self-Help Groups could not make things and sell them as they used to, which reduced the chances for the members to earn money. So, what we found out is that the COVID-19 pandemic really hurt the way the Self-Help Groups worked and showed how vulnerable they are to problems in the economy. The COVID-19 pandemic had an impact on the Self-Help Groups and the people in them, who were really struggling.

Figure 3: Major SHG Problems During COVID-19



Source: Author's calculation (based on primary survey data).

4.6 Regression Analysis

Table 3 shows what happened when we looked at how income and expenditure were related during the COVID-19 period. We found out that income had an effect on how much SHG members spent. If someone's income went up by one unit, they would spend 34.2 percent more. This demonstrates that even during the pandemic, spending by people is strongly correlated with their financial situation. Our results, such as the t-value of 7.900 and the p-value of 0.000, indicate the significance of this link. It is significant at 5 % level. According to the model summary, the R2 value is 0.389. This indicates that 38.9% of the reasons why people spent money the way they did could be attributed to their income. The model is significant, but it does not provide a complete explanation. This implies that other factors, such as uncertainty and the absence of financial difficulties in the market, also had an impact on how people spent their money during COVID-19. Because of the poor economic conditions during the pandemic, income was still a factor in people's spending, although it was weaker. The relationship between income and expenditure is still strong, and SHG members' expenditures are influenced by their income.

Table 3: Regression Results for Income–Expenditure Relationship During COVID-19

Variables	Coefficient (β)	Std. Error	t-value	p-value	R ²	F-statistic	Durbin-Watson
Constant (C)	4179.031	441.079	9.475	0.000			
Income (During COVID-19)	0.342	0.043	7.900	0.000	0.389	62.416	1.307

Source: Author’s calculation (based on primary survey data).

4.7 Discussion of Findings

The study shows that the COVID-19 pandemic had an impact on the lives of Self-Help Group members. People who live in areas of India are already struggling because they do not have stable jobs, and they make money in small ways (Kesar et al., 2021). This makes it hard for them to deal with problems that come up. The study found that the people who were part of the study were mostly from families, which made them even more vulnerable to the problems caused by the pandemic.

The study looked at how the COVID-19 pandemic affected the income and spending of these people. It found that they made money and spent less money during the pandemic. This

happened because many businesses were closed, people did not have much money to spend, and they could not move around easily. Many studies have shown that the pandemic caused problems for people who work in small jobs and live in rural areas. For example, some researchers (Ceballos et al., 2020; Kesar et al., 2021) found that the pandemic caused problems with both the supply of goods and the demand for goods, which hurt people. The study also found that people had to spend their money on the most essential things because they did not have as much money as before. Other studies have found results like the one done by Narayanan and Saha, which showed that the lockdown caused big problems with how people bought and sold things. The COVID-19 pandemic had an impact on the lives of Self-Help Group members and people who live in rural areas of India. The study shows that COVID-19 made financial problems worse for Self Help Group members. They did not have access to formal credit; they had to borrow from informal sources, and they had trouble paying back loans, which means they were under a lot of financial stress.

According to Swain and Wallentin (2009) and Agarwal (2021), self-help groups play a crucial role in helping individuals become financially secure and resilient through employment; if these organizations are unable to operate effectively, they will be unable to offer these advantages in trying times. According to the study, self-help groups were less successful during the pandemic because members were unable to meet and experienced difficulties.

The data also depicts that even in hard times, people's spending decisions are still influenced by their income. It also illustrates how the spending habits of people are influenced by other variables, such as financial difficulties and uncertainty. This indicates that the epidemic altered and complicated how people make financial decisions (Deshpande, 2020).

Overall, the study clearly shows that COVID-19 negatively impacted Self-Help Group members' financial circumstances. By examining the data, the study demonstrates the vulnerability of rural households and the necessity of policies that promote income-generating activities and increase stability in trying times.

5. Policy Implications

The study shows that Self Help Group members had a tough time during the COVID-19 pandemic. They faced a lot of socio- challenges. So, we need to make policies that help them. First, we need to help Self Help Group members make money by giving them different ways to earn a living and teaching them new skills. We should also help them sell their products in online markets. This way, they can have an income even when things are tough.

Second, we need to make sure Self Help Group members can get loans easily and at a low cost. This will stop them from borrowing money from people who charge a lot of interest. Banks and

government agencies should give them loans and make it easy for them to get these loans. They should also help them during times of crisis.

We should also let Self Help Group members pay back their loans in a way that's easy for them. Sometimes we should let them stop paying for a little while if they are having a tough time.

Third, self-help groups must be strengthened. We can meet in small groups or use platforms to accomplish this. In this manner, even if they are unable to meet in person, they can still collaborate. Along with teaching kids how to use computers and the internet, we should also teach them about money and risk management.

Fourth, we need to make sure that Self Help Group members can get the things they need to make their products. We should help them get materials and transportation. We should also help them sell their products by giving them money, helping them with logistics, and marketing their products.

Finally, we need to protect Self Help Group members and their families. We can do this by giving them money, helping them with health problems, and giving them insurance. This will help them when they are having a tough time.

Overall, we need to work to help Self-Help groups. We need the government, banks, and local organizations to all work together. This way, we can help Self-Help Groups. Make sure that people in rural areas have a good life even when things are tough.

6. Conclusion

The current study examined how members of Self-Help Groups (SHGs) in Hatadihi Block, Keonjhar District, Odisha, were impacted by the COVID-19 pandemic. The study examined changes in income, spending, and financial circumstances of these respondents during the pandemic using data gathered directly from them and statistical techniques.

The study found that people in SHGs had less income and spent much less during COVID-19. This meant their daily activities to earn a living were severely affected. The results also showed that these people faced financial problems. They had trouble getting loans and paying back the loans they had. The SHGs also had problems working properly.

The study used a method called regression analysis. This analysis showed that how much people earn still greatly affects how much they spend. During the pandemic, this effect was weaker. This was because there was economic uncertainty.

The findings of the study indicated that SHG members are particularly susceptible to issues like the COVID-19 pandemic. In addition to decreasing their earning potential, the pandemic had an impact on their financial security, stability, and the assistance they received from their organizations. The study advances our understanding of how COVID-19 impacted individuals in particular regions. But the study only examined a small region and a small sample size. This may indicate that not everyone can find the results. Future studies should examine a wider range of variables.

In conclusion, we must strengthen SHGs in order to support sustainable rural development. We can accomplish this by providing them with financial resources, institutional assistance, and employment opportunities. This will assist them in resolving their financial issues. Self-help groups are critical to growth, and COVID-19 had a significant impact on them. Therefore, strengthening SHGs should be our main priority. The pandemic demonstrated that SHGs require assistance in order to be robust.

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