Subsidized Microfinance and Sustainability of Self-Help Groups (SHGs): Observations from North East India

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Abstract

In India, the subsidized scheme is one of the variants of microfinance introduced by the Central Government and similar subsidy based microfinance schemes have also been introduced by other donor agencies. The decadal growth of the number of subsidized SHGs and loan size under these schemes indicate the fact that SHGs are more attracted towards subsidy. However, the key question that has been asked in many research studies is about the relationship of subsidy with that of long-term sustainability of MFIs/SHGs. With the help of randomly selected 150 subsidized SHGs operating in one of the eight states of North East India, that is, Meghalaya, the study established that subsidy has negatively influenced the long-term sustainability of the SHGs. In case the subsidy is withdrawn, the SHGs would be less sustainable-operationally as well as financially. Furthermore, the withdrawal of subsidy would increase the onward lending rate manifold so as to discourage the members to take any loan from the group, thus threatening the entire program.

Keywords: **microfinance, subsidized programs, self- help-groups, subsidy, sustainability**

JEL Classification: C21, C22, G21, H23

Paper Submission Date : July 20, 2014 ; Paper sent back for Revision : December 9, 2014 ; Paper Acceptance Date : March 4, 2015

Across the poor and developing economies, input subsidies were found to be a common element for the development of agriculture. Similarly, supplying subsidized credit to the rural sector through the state controlled or directed institutions to rural segments of the population were also very common, and they have been in vogue in recent years also. Furthermore, the concessional funds to the poor that help in setting small ventures for income generation are also prevalent in many countries, including India. One of these tools currently used in many countries for overall economic development of the poor and the rural sector is microfinancing.

The subsidized microfinance schemes, as a variant of the overall microfinancing tool, were introduced with the basic motive of helping the marginalized sections of the society and to eradicate poverty worldwide. But over the decades, borrowers have wrongly used subsidy. The micro finance institutions (MFIs), in the process, have eroded their capital base and often, questions are raised with regard to their long-term sustainability (Adams & Von Pischke, 1992; Aveh, Krah, & Dadzie, 2013; Chinomona & Tam, 2013 ; Kinde, 2012 ; Rahman, 1999; Nawaz, 2010 ; Quinones, 1997).

Different indicators and tools have been developed to measure the sustainability aspects of MFIs worldwide, but a few MFIs were found to be financially sustainable in terms of covering operating costs, loan loss, and imputed cost of capital out of their operating income. The failure of subsidized schemes in India and abroad, as it has been revealed in the literature, goes against the sustainability of MFIs/self help groups (SHGs) in the long run.

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Meghalaya, being a state from North East India, is poverty stricken and rural dominated. The program of microfinancing through SHGs was introduced more than two decades back. With the implementation of Government of India sponsored Swarnajayanti Gram Swarozgar Yojana (SGSY) in 1999, subsidized microfinancing was started in this state. International Fund for Agricultural Development (IFAD) program of the UN also supplemented this with subsidy-based microfinancing. Considering the poor economic conditions of the state's economy, these microfinancing programs are expected to be successful. However, there is always a doubt about the sustainability of subsidy driven programs in general and microfinancing, in particular, raising similar doubts on the sustainability of such programs in this state.

Considering the above fact, an attempt has been made in this paper to assess the financial sustainability of SHGs operating in Meghalaya and to study the impact of subsidy on their sustainability. An explorative methodology was adopted to arrive at the conclusion. The SHGs who were at least 5 years old in terms of obtaining microcredit from the formal financial institutions were considered for the study. A period of more than 5 years was considered appropriate for the study as SGSYs started working effectively only after 2000-2001 in the state of Meghalaya. Similarly, the first phase of the IFAD program was commissioned in the state in the year 2001-2002 through the intervention of the North Eastern Region Community Resource Management Project (NERCORMP). The data were collected from four districts of Meghalaya out of its seven districts.

As the study mainly concentrates on subsidized finance, the SHGs of SGSY scheme and IFAD program formed the population. As on March 31, 2010, a total of 3712 credit linked SGSY-SHGs (State Level Bankers' Committee, 2010) and 1077 SHGs sponsored by IFAD through NERCORMP (NERCORMP, 2010) were operating in the state. Of these, data of 150 subsidized SHGs (84 from SGSY and 66 from IFAD) were collected from a structured schedule as well as in the form of audited financial statements prepared by local chartered accountant firms. The different financial variables such as loans taken by SHGs, deployment of acquired loan in micro business, as well as disbursement of loan to members, repayment of loans either by members to SHGs or by SHGs to linked banks, net income, operating expenses, net surplus, savings, and other financial parameters were considered as the prime variables to judge the sustainability position of the SHGs.

Literature Review

The existence of poverty and its eradication has always been a major concern for the world's developing regions. Around 25% of the population in developing regions lives below the poverty line with a current threshold of $1.25 a day (United Nations, 2009). As poverty has always been a hindrance to the developmental process of a country, the governments in the developing and underdeveloped countries have been adopting effective measures to address it. Expansion of credit coverage through state interventions is based on various theoretical assumptions.

Seibel and Parhusip (1990) mentioned that this approach is based on the premise that rural micro-entrepreneurs are unable to organize themselves; they need subsidized credit for increasing their income and are too poor to save. Yaron, Benjamin, and Piperk (1997) traced this traditional approach in rural finance leaning heavily towards direct interventions to Keynesian influence. Under this approach, in addition to the assumptions listed above, the key problem areas visualized in rural financial markets included a lack of credit in rural areas, absence of modern technology in agriculture, low savings capacity in rural areas, and prevalence of usurious moneylenders. The conventional argument for subsidies in agricultural development is to promote adoption of new technologies and thus increase agricultural productivity (Ellis, 1992).

The subsidy driven schemes were given importance to the make poor self-reliant, in particular, and eradicate poverty in general. The subsidized programs are launched with the basic motive of helping the neglected segments of the society, and it is claimed that the subsidized institutions have eroded their capital base as a chunk of the subsidy were availed by the non-poor who did not feel obligated to repay the loans (Adams & Von Pischke, 1992). The non-repayment of loans has ultimately raised a concern towards the long-term sustainability of these institutions.

Microfinance, especially microcredit to the poor, has been discovered to be an effective tool to fight against such social iniquity. Improved access to microfinance can enable the poor to manage their risk better, gradually build their asset base, develop their micro-enterprises, enhance their income earning capacity, and enjoy an improved quality of life as well as stable family units (Robinson, 2001). Sustainability is the key for every government supported MFIs/SHGs. Sustainability indicates an ability of the institution that repeats performance over time. Covering of operating cost through efficient running of business is important for sustainability of any business. Among the other factors, efficient utilization of loan funds, recovery of loan on time, reduction of operating cost, and increase in income over time are important.

Most of the discussions regarding sustainability in many countries are taken to mean full cost recovery or profit making, and is associated with the aim of building MFIs that can last into the future without continued reliance on government subsidies or donor funds (Conning, 1998). Cull, Demirgüç-Kunt, and Morduch (2007) defined sustainability by the traditional financial ratios of operational self-sustainability (OSS) and return on assets (ROA). Besides all these criteria, the subsidy dependence index (SDI) (Yaron, 1992) has been used as the most relevant and accepted indicator worldwide to find out the dependency of an organization on subsidy. The SDI is the ratio of subsidy to revenue from lending. It measures how much a MFI would have to increase its present on-lending interest rate to cover all of its costs, including adjustments. Rosenberg (2009) also supported the above measures and provided a guide in measuring indicators of MFI sustainability. However, based on all these indicators, none of the subsidized organizations were found fully sustainable across the globe.

One of the surveys conducted on 72 MFIs across the world (Micro Banking Bulletin, 1998) showed that poverty-focused programs with a "commitment" to achieve financial sustainability covered only 70% of their full costs. In Bangladesh, it is held that most of the traditional/secular NGOs / MFIs are not able to operate at break-even level without subsidies from outside sources and hence, these organizations are not able to provide less cost effective credit/investment programs. The interest rates on loans charged (20% - 35%) by the traditional NGOs including Grameen Bank are high by any standard (Rahman, 1999). Morduch (1999) narrated about the speculation of a few observers and stated that if subsidies are withdrawn and costs cannot be reduced, 95% of the current programs will eventually have to close down. The remaining 5% will be drawn from the larger programs, and they will help to fill the gaps in the financial markets. In fact, it is estimated that only 5% of all programs will ever become self-sufficient (Morduch, 2000). Recent studies also cast doubt on the sustainability of MFIs without subsidies. Using Yaron's SDI as a measure of sustainability, the trade-off between costs and sustainability of MFIs was found (Nawaz, 2010). Another recent study in Ethiopia (Kinde, 2012) also indicated that financial sustainability is affected by subsidy. A recent study in Vietnam (Chinomona & Tam, 2013) still raised doubts about the sustainability of MFIs in case of withdrawal of subsidy. In the context of Ghana, researchers found (Aveh et al. 2013) that the dependency of MFIs on subsidy declined, but it was very slow and ,therefore, most MFIs will depend on subsidies for a very long time to come.

In India, the subsidized scheme of Integrated Rural Development Program (IRDP) that came in 1980, turned out to be a fizzle as it was found that the program benefited the non-poor (Adams et al., 1984). One of the studies conducted on this program showed that only 11% of all IRDP borrowers borrowed more than once (Pulley, 1989). Also, a study (Seabright, 1989) on "Failure of Livestock Investment under IRDP" conducted in two villages of Tamil Nadu suggested that even when subsidies were included, the benefits to households of investing in livestock through the IRDP scheme were significantly below than those of non-IRDP schemes. A study conducted on 10 important MFIs (NGOs) (Quinones, 1997) revealed that several of these are not sustainable. They are only operationally sustainable and covered operating costs with their interest income.

Several subsidized programmes in the past have not achieved sustainability. All those programs though led to greater outreach, and a chunk of credit was misused by the micro borrowers that created a negative perception among bankers about the credibility of the programs. As aptly observed a decade back (Asian Development Bank, 2000) in India, none of the rural, formal financial institutions can be considered sustainable as they are hassled with huge arrears and incur high transaction costs in providing financial services. Loan losses and transaction

costs are invariably higher than earnings, such that they require constant refinancing and recapitalization by the apex institution. The adverse effect of subsidy on the net earnings for the subsidy-based organization has always been a case of concern. Many of the subsidized programs run by the government have not achieved their objectives in terms of their long-term survival (Das, 2004). All these historical facts go against the sustainability of subsidized institutions in India.

Subsidized Microfinance: North East India Vs. Meghalaya

Various countries, to alleviate poverty and encourage entrepreneurial activities, have launched different subsidy driven programs. The Government of India (GoI), in the last few decades, has implemented poverty alleviation schemes in order to reduce the incidence of poverty. Nehru Rojgar Yojana (NRY), Swarna Jayanti Shahari Rojgar Yojana (SJSRY), and Jawaharlal Nehru National Urban Renewal Mission (JnNURM) are schemes aiming at providing employment to the urban poor through setting up of self employment ventures, employment promotional training, and removal of indebtedness through formation of SHGs like thrift and credit societies for the development of the poor. Besides these programs, few government-sponsored schemes/institutions are also found to exist in India in which the Prime Minister Rozgar Yojana (PMRY), Khadi and Village Industries Commission (KVIC), and National Minorities Development and Finance Corporation (NMDFC) are prominent.

Subsidized microfinance is not a new phenomenon in India. The earlier decades of 1960s and 1970s witnessed the introduction of subsidies in the field of agriculture. The subsidies in those decades were provided to fulfill the credit demand of the rural poor, bring modern technology in agriculture, and also to help the poor to free themselves from the dependency of moneylenders. Apart from these, the 80s witnessed the introduction of new subsidized program as IRDP, but all these programs have allegedly benefited the non-poor section of the society, thereby wasting the huge resources of the public. In recent years, the subsidy based SGSY program, which was launched in 1999 by merging many other earlier programs, including IRDP, has attracted a large section of poor to form groups (SHGs). In recent times, the SHG based SGSY has been getting popular among the poor.

The North East India is at its nascent stage in the field of microfinance. The spread of microfinance in the region is negligible in comparison with other regions of the country. The region shares only 1.96 % of the nation in savings of SHGs and around 2% in terms of loan disbursement to them (NABARD, 2010). In this region, among the prominent institutions that give micro credit to the poor directly are regional rural banks (RRBs), CBs, and cooperative banks, and indirectly through refinancing other banks are National Bank for Agricultural and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI), North Eastern Development Finance Corporation (NEDFC), etc.

Most of the states in the region have started availing subsidized microfinance only after the launching of SGSY. Since then, the region has witnessed a growth in the number of SHG formation, but it is still far below the national figure. The Table 1 highlights the performance of prominent subsidized SGSY schemes, including other sponsored schemes in the region. The growth rate of subsidized SHGs under different indicators is found to be unimpressive. The overall growth of savings and loan disbursement grew by 20% and 31%, respectively. Comparatively, the state of Tripura has registered a sound growth in the program followed by Sikkim, Arunachal Pradesh, and Assam. Manipur, on the other side, is the worst performer among all the states in savings (-9.57%), loan disbursement (-23.61%), and loan outstanding (-37.90%).

The SGSY, since its inception, is found to be popular in Meghalaya because of its subsidy component, but the poor performance of the program raises a doubt towards its long-term sustainability. Out of the total credit linked SHGs, the SGSY SHGs shared more than 50% almost every year, but the growth rate (0.92%) over the period of 5 years up to 2010-11 reflects poor credit linkage in the state (Table 2). Similarly, the low growth rate of around 6% of loan disbursement to SGSY SHGs out of the total indicates the weak performance of the scheme and raises concerns about the enterprise creation goal of the government. When the recovery rate is considered, the performance of the scheme shows further deterioration. The repayment status of the program is precarious in the

Table 1. Progress of Subsidized Microfinance in NER vis-à-vis Meghalaya (₹ in millions)

Name of the States	Indicators	2007-08	2010-11	Linear Growth Rate (%)
	Savings	9.55	9.68	12.00
Arunachal Pradesh	Loan disbursed	8.74	39.57	45.98
	Loan o/s	28.98	86.24	43.53
	Savings	293.03	513.03	14.81
Assam	Loan disbursed	620.76	1557.35	28.26
	Loan o/s	1632.15	3903.69	27.78
	Savings	9.42	6.54	-9.57
Manipur	Loan disbursed	18.26	9.19	-23.61
	Loan o/s	94.68	30.09	-37.90
	Savings	21.94	18.07	-5.61
Meghalaya	Loan disbursed	17.90	43.17	31.26
	Loan o/s	105.07	80.69	-5.24
	Savings	10.70	13.70	14.30
Mizoram	Loan disbursed	11.59	7.83	-12.05
	Loan o/s	61.90	6.35	-51.40
	Savings	3.31	7.57	32.35
Nagaland	Loan disbursed	9.7	4.94	-23.86
	Loan o/s	61.04	54.94	-3.15
	Savings	4.32	11.95	41.94
Sikkim	Loan disbursed	3.99	10.95	30.31
	Loan o/s	14.79	49.51	46.45
	Savings	11.49	106.99	104.93
Tripura	Loan disbursed	137.81	490.48	48.13
	Loan o/s	219.50	798.97	53.42
	Savings	363.78	687.53	19.92
NER	Loan disbursed	828.74	2163.47	31.55
	Loan o/s	2218.10	5010.50	27.15

Source: NABARD - "Status of Microfinance in India" - NABARD Annual Report 2007-08 to 2010-11

Table 2. Financing of SGSY SHGs in Meghalaya

Years	Credit linked SGSY SHGs to total (%)	Loan disbursed to SGSY SHGs to total (%)	Recovery Rate (%)
2006-07	46.08	42.92	48.92
2007-08	61.11	67.04	52.24
2008-09	63.48	68.31	46.23
2009-10	50.03	59.33	57.70
2010-11	53.31	60.43	69.49
Growth Rate (%)	**0.92**	**5.79**	**-**

Source: Compiled from SLBC Report, SBI, March, 2007-08 to 2010-11.

state, which puts a question mark on its long-term sustainability. The recovery rate of the program over 5 years till 2010-11 was found to reach up to 69.49%, but the figure is still lagging behind other all India figures of more than 80% as claimed by NABARD.

Besides the SHGs under SGSY, 1077 SHGs sponsored by IFAD through NERCORMP (NERCORMP, 2009-10) exist in the state. The NERCORMP is a collaborative project between the IFAD and the Ministry of DoNER, implemented in two districts of Meghalaya, that is, West Garo Hills and West Khasi Hills. The Meghalaya Rural Development Society (MRDS) is yet another intervening agency, with whom the Government of Meghalaya and the IFAD are jointly implementing the "Livelihoods Improvement Project for the Himalayas" since June 2004. A total of 1939 SHGs have been formed since the inception of the project till the third quarter of the financial year 2011-12 (Meghalaya Rural Development Society, 2011-12). SHGs that are linked with MRDS are found availing 'project seed capital' and 'grants' from the governments. Apart from giving direct grants, MRDS plays the role of promoter, nurturer, capacity builder, and helps SHGs to link themselves with the banks to avail subsidized as well as non-subsidized funds. The actual performance of the program in terms of its sustainability cannot be known at present due to its recent interventions. Among few NGOs, Bosco Reach Out (BRO) has been the most active organization involved in microfinancing activities in the state.

Financial Health of the SHGs in Meghalaya

The financial health of the SHGs from SGSY scheme and IFAD program has been judged using important variables such as business, profitability, savings, and loans. The overall financial results, as reflected in the Table 3, are not impressive. From the study of entire samples, the IIR of 16% is not sufficient and reveals a lot of inconsistency across the districts. The overall IEIR of 6% indicates a lower amount of total income being consumed in the form of interest expenditure. Besides, it is also observed that surprisingly, the SHGs have slowed down in loan repayment to a great extent, especially in case of schematic loans, which they get after successful clearance of the first loan. The lucrative amount of subsidy in the second loan (50% of the project cost or

Table 3. Average Performance of Subsidized SHGs

Business					
Parameters	**IIR (%)**	**IEIR (%)**	**OEIR (%)**	**IEIER (%)**	**ISR (%)**
Performance	15.87	5.91	12.9	37.26	**9.95**
Profitability and Efficiency					
Parameters	**NSTR (%)**	**ROC (%)**	**OETLP (%)**		
Performance	5.01	0.71	1.82		
Savings					
Parameters	**AS (₹)**	**LGR (%)**	**CV (%)**		
Performance	5678	20.63	29.35		
Loan					
Parameters	**LPLOR (%)**	**Loan o/s (₹)**			
Intra Group	36.84	17283			
With linked banks	12.76	65518			

Notes: IIR = Interest earned to income ratio; IEIR = Interest expenses to income ratio; OEIR = Operating expenses to income ratio; IEIER = Interest expenses to interest earned ratio; ISR = interest spread ratio; NSTR = net surplus to total revenue ratio; ROC = return on capital ratio; OETLP = operating expenses to total loan portfolio ratio; AS = average savings; LGR = linear growth rate; CV = coefficient of variation; LPLOR = loan paid to average loan outstanding ratio; Loan o/s = loan outstanding per SHG per year.

₹ 125000, whichever is lower) could be a strong reason that attracts SHGs to redeem the first loan in time. The slow repayment of the second loan, therefore, has impacted the ratio adversely.

The operating expenses in the form of OEIR constitute around 13% of the total income, which looks slightly high for the small scale of the SHG business. A few reasons, such as proximity of the SHG members, maintenance of a few set of books like cash book and minute book have helped SHGs to curtail the expenditures on traveling, stationery, and other aspects, but could not contribute much to the overall earnings of the SHGs, which is very much visible from the low NSTR and ROC of 5% and 0.71%, respectively. Again, the IEIER of 37% reveals the fact that almost 2/5th of the interest income is taken away by interest expenditure, indicating less amount of surplus being left in the hands of SHGs. This is visible in low savings figure (₹ 5678 per SHG), which is less than the national figure of ₹ 7633 (NABARD, 2009-10). The high coefficient of variation (CV) of 30%, on the other hand, indicates high inconsistency in savings of the SHGs across the districts. The ISR is important to determine the long-term viability of the group as well as to know the position of asset creation by SHGs. A higher ratio is always helpful in instilling more confidence among SHG members to venture into bigger projects. Furthermore, this helps the group to raise more loans from the banks at a cheaper rate as the successful loan payers are always in the favorite list of the bankers. The overall ISR is, however, positive (10%), but cannot be considered as good business performance.

The recovery status of loan provided to members, that is, intra-group delineates poor performance. A rate of just 37% for the entire sample reveals poor economic status of the SHG members. This hints at a plausible reason that the funds were diverted for family maintenance. The recovery rate further deteriorated when LPLOR of SHGs to the banks was considered. This ratio of just 13% for the entire 123 samples (excluding 27 samples which are fully subsidized) shows dismal performance of loan repayment by SHGs. If we compare this ratio with the repayment performance of SHGs of more than 80% in the hands of the linked banks at the national level, as claimed by NABARD (NABARD, 2010), and also the repayment rate of 95% by SHGs in the hands of participating banks under Grameen Bank in Bangladesh (Sarkar, 2008), the Meghalaya figures stand nowhere. Hence, in the present scenario, the results so obtained for the state of Meghalaya go against the empirical studies of NABARD and Grameen Bank.

Subsidy and Sustainability Relationship

At the grass root level, the primary functions of the SHGs in terms of mobilization of savings and funds, and disbursement of loans to the members matched with that of MFIs. Therefore, the measurement techniques as advocated by Small Enterprise Education and Promotion (1995) and Yaron (1992) to find out the sustainability of MFIs have been extended to the present study to check the long-term financial position of the SHGs. The evaluation of the entire samples does not indicate the sound financial performance of the SHGs during the study period of 5 years (Table 4).

The OCR of 7% supports the minimum consumption of loan assets in the form of operating expenses, but the much low figure of ROA of just 3% does not hold good promise for the future. It may be because of low OCR, the SHGs as a whole could cover the operating expenses out of their financial income as it has been reflected through

Table 4. Self Sufficiency Ratio of SHGs

Particulars	OCR (%)	ROA (%)	OSSR	FSSR
SGSY SHGs	5.45	19.12	2.58	0.94
IFAD SHGs	8.74	-12.09	-0.35	-0.08
All SHGs	7.17	2.78	1.27	0.36

Notes: OCR = Operating Cost Ratio; ROA = Return on Investment; OSSR = Operating Self Sufficiency Ratio; and FSSR = Financial Self Sufficiency Ratio.

more than 1 ratio of OSSR (1.27), but less than 1 ratio of FSSR (0.36) clearly delineates an inability of these SHGs to cover an extra cost in the form of loan loss provision (LLP) and imputed cost of capital (ICC) out of their total income. The poor performance of IFAD SHGs, as it has been reflected, has a severe impact on the overall sustainability position of SHGs in the state. The sustainability situation of the entire sample looks weak in the present context and may not hold good promise for the future. This prompted us to investigate into the possibility of a negative association of subsidy with sustainability indicators. This is attempted with the help of regression analysis.

Regression Analysis

The Net Surplus *(NS)* is the main indicator of performance of SHGs. Larger surplus covers operating expenditure and financial cost. So, sufficiency indicators are also greatly affected by it. Furthermore, it directly decides the ROA. Therefore, this is considered as an important and strong contributor to the sustainability of SHGs and ,therefore, the regression model with *NS* as the dependent variable and various financial as well as non-financial indicators (dummy variables) as independent variables were developed and a linear regression with panel data of 150 SHGs for 5 years, that is, no. of observations = 750 was run to trace the causal variables (Table 5). To standardize the data, all these four financial variables were included with converted Natural Logarithmic (LN) values. Since there are three types of SHGs, for example, female, male, and mixed, two dummies are included. Average educational level of members of the SHGs was used as a dummy. While we expect a positive relationship of *TI* and the dummy of *EDU* with the dependent variable, a negative relationship of *OE* and *AS* with the same was expected. For both the dummy type-wise classifications, no concrete relationship is predicted.

The regression model is as follows:

$$y_{it} = \alpha + \sum_{k=1}^{k} \beta_k \, x_{kit} + \varepsilon_{it}$$

where,
$i = 1, 2,\ldots N$; refers to a cross-sectional unit; $t = 1, 2,\ldots; T$; refers to a time period and $k = 1,2,\ldots; k$; refers to specific explanatory variables, and y is the dependent variable.

With the inclusion of the actual variables, the model is transformed to:

$$LNNS_{it} = \alpha + \beta_1 LNTI_{it} + \beta_2 LNOE_{it} + \beta_3 LNAS_{it} + \beta_4 TWCI_{it} + \beta_5 TWCII_{it} + \beta_6 EDU_{it} + \varepsilon_{it}$$

The regression results show that TI is the strongest positive contributor to *NS* in the model followed by the negative impact of operating expenses *(OE)*. These finding are on the expected lines. The negative beta value of average subsidy *(AS)* is highly significant, indicates the fact that subsidy has a negative impact on the net earnings of the SHGs. Among the non-financial variables, *TWC1* shows a positive relationship with *NS*, and *TWC2* shows a negative relationship. However, none of them is significant, thus negating any importance of member's composition in the group. The third dummy variable, that is, education has a positive and significant influence on *NS*. This indicates that better educated SHGs have a positive influence on *NS*. As indicated through the R^2 value and *F* - ratio, the overall model is highly significant. The DW test signifies absence of auto correlation, and the VIF being less than 10 signifies absence of multicollinearity (Table 5).

Subsidy Dependence Index

The above relationship study clearly establishes that subsidy has a negative impact on sustainability. The important question now emerges, that is, in case the subsidy is withdrawn, would the SHGs remain operationally and financially viable? For arriving at a plausible answer to this, we employed the SDI measure. A SDI of 100%

Table 5. Regression Results - Net Surplus as a Dependent Variable

Independent Variables	B	Beta	*t* - values	Significance	VIF
Constant (β_0)	2.51	-	4.61*	.000	-
TI (β_1)	.859	.781	34.70*	.000	1.207
OE (β_2)	-.448	-.142	-6.91*	.000	1.013
AS (β_3)	-.056	-.073	-3.30*	.001	1.154
TWC1 - Dummy (β_4)	.260	.025	1.03	.305	1.409
TWC2 - Dummy (β_5)	-.182	.010	-.407	.684	1.312
EDU- Dummy (β_6)	.427	.050	2.33**	.020	1.075

Regression Summary: R =. 830 R^2 = .688 Adj. R^2 = .686 F = 273.6 * DW = 1.78

Note: * & ** Significant at 1% level and 5% level respectively,

TI = Total Income; OE = Operating Expenses; AS = Average Subsidy; TWC1 = Type-Wise Classification1; TWC2 = Type-wise Classification 2; EDU = Education.

Table 6. The SDI Model for the SHGs

Sl. No.	Variables	SGSY SHGs	IFAD SHGs	ALL SHGs
1	**LP:** Loan disbursed to members (average of per SHG per year) (₹)	27408	22442	25223
2	**M:** Lending rate of SHG to its members per annum (%)	24	24	24
3	**A:** Subsidy to SHG (average of per SHG per year) (₹)	16740	13350	15248
4	**SDI:** A/ (LP*M) (%)	254.49	247.86	251.89

delineates a doubling of the average on-lending interest rate by SHG to its members to become viable without the support of subsidy. The loan data available in the SHG's book shows the borrowing of loans (revolving and project) at an average interest rate of 11% (ranges between 8.5% to 13.5% for the samples). On the other hand, subsidy availed by the samples stood at 43%, 78%, and 52%, respectively for SGSY, IFAD, and combined samples (as computed from the respective samples). Due to the inclusion of subsidy, the effective of borrowing interest rates came down to the extent of 6.27%, 2.42%, and 5.28%, respectively for each of the groups. These effective borrowing interest rates are quite low in comparison with the market interest rate of 11%. The conventional accounting methods capture the lower interest rates and ignore the rest. This understates the real cost of borrowing. Therefore, the commercial viability of the SHG operation solely depends upon subsidized finance. Had there been no subsidy, the interest rate charged by them to their members would have been much higher than the present level of 24%.

The subsidy dependence index (SDI), calculated by Hulme and Mosley (1996), for the MFIs in many developing countries, varies between 135% for BoncoSol, Bolivia to 1884% for Mudzi Fund of Malawi. The calculation of SDI for the present study in each of the groups also reveals heavy dependency of SHGs on subsidy (Table 6). The SDI of 254%, 248%, and 252% of each of the groups suggests that the present on lending interest rate of SHGs (24%) is needed to be increased by the respective percentage on an average basis so as to be at par with the market without any subsidy. This means that the lending rate applicable to SHG members should be more than 80% in each group, which is quite high in comparison with the market rate.

In the real-life scenario, no rational borrower would borrow loans on such high rates. With the inclusion of subsidy, the lending rate among the members looks affordable, and once it is withdrawn from their loan component, the lending rates jump manifold. Hence, no one would opt for the loan on such a high rate. All these calculations reveal the fact that SHG finance is not at all cheap; rather, it is much dearer as compared to the finance provided by the direct banking route and well comparable to the usurious rates of local money lenders.

Under these circumstances, the obvious questions arise are – in case of no subsidy, will the SHG members be

Table 7. Self -Sufficiency Ratios - With Subsidy and Without Subsidy

Particulars	Before adjustment of subsidy		After adjustment of subsidy	
	OSSR	FSSR	OSSR	FSSR
SGSY SHGs	2.58	0.94	1.83	0.81
IFAD SHGs	-0.35	-0.09	-0.32	-0.08
All SHGs	1.27	0.36	0.95	0.31

willing to take a loan at this steep rate? Second, once the SHGs are made subsidy free, will they remain viable? Third, is subsidized finance from any subsidized scheme willing to help the poor, and should the government continue with these kinds of schemes? And above all, the fourth question, is it justifiable to judge the sustainability position of SHGs without eliminating subsidies from their loan portfolio? Hence, the financial sustainability parameters found would be less attractive without the subsidized finance for the SHGs in the state of Meghalaya. All these inferences clearly delineate the fact that the SHGs in the state are not financially sustainable without the component of subsidy in their loan component. Even high degree of variation has been observed when OSSR and FSSR are calculated after the adjustment of subsidy (Table 7).

In the latter situation of SGSY samples, the SHGs were supposed to pay an interest to their respective linked banks at an average market interest rate of 11% rather than at 6.27% , that is, considering an average subsidy of 43% in the total loan component. So, the total interest payment actually made by the SGSY SHGs is adjusted by a factor of 1.75,that is, [{11-6.27)/6.27} + 1]. Similarly, the interest payment actually made by the IFAD and combined samples has been adjusted by a factor of 4.55 [{11-2.42)/2.42}+ 1] and 2.08 [{11-5.28)/5.28} + 1]. After adjustment of interest payment with respective factors, both the OSSR (except that of SGSY samples) and FSSR stand below 1, thereby showing the unsustainable financial position of the SHGs in Meghalaya. This indicates that the SHGs are heavily dependent on the subsidy, and once it stops, it raises a very big question with regard to their sustainability. In the real-life scenario, they may not be sustainable for long if the subsidy is withdrawn from their loan portfolio.

Conclusion and Suggestions

The services of various microfinance programs, especially the subsidized microfinance, are found to be very effective in creating opportunities for the poor for sustaining their livelihoods. However, the major problem associated with these programs, especially with the subsidized schemes is its sustainability, in particular, and the sustainability of SHGs in general. The initial stage of these programs looks promising in terms of creating livelihood opportunities for the poor, but sustaining these opportunities is a difficult challenge for them. The performance of the subsidized microfinance schemes in Meghalaya, as found from the study, is not satisfactory. The sample analysis reveals that subsidized finance is not extending any significant help to the poor in the state of Meghalaya, especially in generating sustainable income. The sustainability analysis indicates unsustainable position of the subsidized SHGs. The negative contribution is also hinting at withdrawal of subsidy at some point of time. Though a difficult decision for the government agencies to do so in the context of a developing economy for ensuring long-term success of subsidized programs, such tough decisions are inevitable in the future.

On the basis of the observations from the field survey and the above analysis, the following suggestions are advocated for enhancing the sustainability of SHGs in Meghalaya :

(1) Proper identification of the needy and genuine borrowers for the program should be the primary objective of all the authorities who implement and run such programs. The NGOs, Block Development Officers, Village Councils (Panchayats), DRDAs, and banks should work in a coordinated fashion to identify the poor, help them in forming groups, nurture them, and support them to get credit linked with the banks. All these will facilitate SHGs to avail

revolving funds at the initial stage and to avail the schematic loans in the future.

(2) As observed during the survey, the absence of minimum educational background of the members is one of the prime obstacles for the SHG's functioning. From the regression study, it is also found that education has a positive relationship with the surplus of SHGs. So, imparting minimum working knowledge about business is crucial. Though full-fledged education to the members is not possible, but an informal education module, especially in account keeping and micro/small business management in their local language, should be imparted to the members. This will not only inculcate book keeping practices among SHG members, but will also facilitate future researchers to have better access to financial data.

(3) The principle of 'Business Entity Concept' was not followed by any of the sample SHGs. This means that personal transactions of the SHGs were not treated separately from their businesses. This severely impacted the overall indicator of sustainability, that is, the net earnings of the SHGs. Proper awareness, therefore, should be given to the groups either by the promoter agencies or by the authorities concerned. This will provide knowledge to the SHGs to distinguish business and personal transactions while maintaining accounts.

(4) A regular training programme should be designed to provide overall capacity building for the SHGs, and all the stakeholders concerned should work collectively and actively in this regard. Handholding support by the respective promoter agencies for a few SHGs in the study was found to be very effective to expose them to efficient practices for running a business. In the future, this support system should be made compulsory for every promoter agency, which will encourage groups to handle their activities prudently.

(5) Microfinance is a gamut of financial services that are offered to the poor, in which microcredit is very much popular among them. Microcredit alone, however, may not fulfil the entire needs of the poor. Along with microcredit, the insurance cover through micro insurance should be provided in their loan agreement to cover future contingencies. This will boost the overall sustainability of the SHGs in the state.

Research Implications

Subsidized microfinance has been considered as an efficient tool to eradicate poverty and help poor increase their living standards. A noble attempt has been made by the government to help poor supplementing their income by venturing into small businesses worldwide. The GoI, in its attempt to lift the poor from poverty, has been experimenting with the launching of subsidized schemes. The SGSY is one of the recent interventions. The subsidized programs look promising as a start-up, but raise questions in terms of their long-term sustainability. The empirical evidence, as available in the literature, casts doubt on the element of subsidy. The inferences of the present study also go in line with the empirical evidence and delineate doubts with regard to long term survival of SHGs in the absence of subsidy in their loan component. As the inferences have been drawn for the state of Meghalaya, the same may not be applicable for other states and other countries.

Limitations of the Study and Scope for Further Research

This work is mainly based on primary data collected from the ground level, which is subject to bias. Also, other macro and micro economic variables are not included in the model. This suggests that the findings of the study should be taken with proper caution. Furthermore, detailed research by including more variables into the model and by covering more number of SHGs would bring better and conclusive results. Hence, a wide scope is there for the future researchers to carry out similar research with the inclusion of more number of states, samples, and other appropriate variables to arrive at conclusive results.

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