8. CONCLUSION AND POLICY IMPLICATION
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The present study evaluates the outreach, impact and sustainability of group-based microfinance programmes, primarily focussing on rural poor households in the backward regions in India. The principal research questions addressed in the study concern several aspects of poverty and the intricacies of institutional credit access, depth of outreach of group-based credit programmes, impact of participation in the programme on improving institutional credit access and income of the poor households and delinquency rates of borrowings from the group. The study attempts to investigate several layers, from the household, the group and the programme characteristics in order to arrive at certain conclusions. The study design involves a comprehensive and systematic investigation of available published sources and also analysis of field-work carried out in two districts of one of the poorest states in India, i.e., Madhya Pradesh. The field-work is based on a comprehensive quantitative as well as qualitative evaluation of three most popular microfinance programmes in India, namely, Swarnajayanti Gram Swarozgar Yojana (SGSY), NABARD’s SHG-Bank Linkage Programme, particularly the second model in which a facilitator promotes the SHGs (PRADAN in the present study), and the World Bank promoted SWASHAKTI SHG programme with participation of state government and local community level organisations. The study applies recent econometric techniques in estimating the outcomes of interest and also tests their robustness. In short, every effort has been made to ensure that the study comes out with certain conclusive answers on issues of vital importance to the sustainability of microfinance programmes in the absence of any substantive evaluation mechanism in the country.

Given the stated objectives, the study begins by introducing the theoretical propositions on poverty and the intricacies of institutional credit access. In this respect, chapter 1 of the study sets the background for an analysis of the group-based credit programmes and the designed hypotheses of concern. In particular, it analyses the first research question regarding the suitability of group-lending as an institutional arrangement that attracts both the lender and the borrower to join hands, which is not possible in individual-lending arrangements. The study systematically investigates the supply side as well as the demand side constraints that are crucial in improving access to capital from institutional sources. Group-lending contracts have certainly opened
up the barriers to the entry of the poor into formal credit market by lifting the limited liability restriction, but the proposition demands empirical testing keeping in view the aspects of regional development.

One of the primary objectives of the study has been to examine the effects of changing financial policy environment on trends and patterns of institutional credit delivery to the rural poor in India. It has been observed that rural poverty is still pervasive, even after a plethora of programmes and policies were addressed to eliminate it. The inequality within rural areas is persistent, which is evident across size class of income or/and across size class of asset holding (land) or/and value of all tangible assets. Further, most of the asset-poor, and small and marginal farmers, belong to the lower decile of income distribution and most of the asset-poor households are dependent on casual wage work as their main source of earning. This has made the formal banking sector out of reach for a sizable proportion of rural population. Analysis of field survey data in this study also substantiates such findings on the ground that the composition of household assets, income sources, landholding size and overall household wealth are crucial determinants of households’ access to institutional credit. So poor households whose main source of income is casual labour work, or the landless or asset-poor households, are mostly restricted from participating in formal credit market, even if they are members of various credit groups.

The role of institutional and informal agencies in serving the credit needs of rural households has been assessed comprehensively in the purview of both published sources and the field survey data. It is found that there is overall increase in share of informal lenders in the total household borrowing, and thereby, a decline in share of institutional lenders, in the rural credit market during the 1990s. Such a pattern is observed the first time ever since the rural credit surveys were undertaken in post-independent India. In particular, significant increase in the share of informal agencies is observed among the lower deciles of population, which is primarily due to a large decline in the share of institutional agencies. Even the cultivator households have reported decline in share of credit from formal sources, whereas their dependence on informal agencies have increased. However, the increase in share of institutional agencies is observed only in productive credit both for the cultivator and non-
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cultivator households, whereas the share of credit for non-productive purposes is found to have reduced drastically. Therefore, it can be inferred that the institutional agencies largely delivered safe and profitable loans that have been a phenomenon of the banking sector, particularly after financial liberalisation in the 1990s. Consequently, the asset-poor or the casual labour class households, without having collaterisable assets, have had to depend on the informal agencies. Field survey data also support similar results. It is found that the share of informal agencies in total borrowing of all households is significantly higher than that of institutional agencies. However, among programme participant households there is an increase in the share of institutional sources as compared to non-participants. But, the increase in share is marginal at the bottom end of income distribution and higher as household income increases. This, again, implies that the relatively poor member households are constrained by volume of credit borrowed from formal credit agencies, while the better-off households get higher share of the credit disbursed to the members either directly or through group. Evidently, joining the programme has been more beneficial for the better-off sections of households, as they use the group as a platform to get easy access of credit from the banks without mortgaging any physical collateral.

Therefore, the findings of this study, on the one hand, confirm the hypothesis of Banerjee and Newman that a household's initial level of wealth is a significant determinant in providing access to capital market and on the other, question the very basis of theoretical literature on the group-based credit arrangement, which avers that group-based credit arrangement overcomes the requirement of collaterisable asset in a credit transaction, and hence the poor's access to credit market improves. Our study highlights that the borrowers' lack of collaterisable security still remains as a major barrier to access credit from formal agencies.

However, this study finds that participation in credit programmes has significantly reduced dependence on informal credit sources. But, this does not imply that formal credit services crowded out the informal agencies for the participants of the group-based credit programme. Rather, the gap has been filled by borrowings from other sources such as, group savings funds. Generally, during emergency, for household consumption in lean seasons or for medical treatment, the poor borrow from the local moneylenders. After joining the programme they mobilize savings and most of the
emergency requirements are met by borrowing from group savings fund. In a way, this has reduced the vulnerability of the member-borrower from the well-known proposition of exploitation by informal lenders.

Another key objective of the study has been to examine the outreach of microfinance programmes and, in particular, to identify the targeting of the programmes to the poor and the poorest. This issue has been addressed by analysing the published sources as well as the micro data from the fieldwork. The published sources provide macro trends and regional patterns in the progress of microfinance and, therefore, one can examine their interrelationship with poverty at the state level. Our study highlights that published sources suffer from limitations of unavailability of adequate information for examining depth of outreach. So, the issue is discussed in depth from the analysis of the field survey data. While both analyses more or less converge in terms of certain findings, the survey results are robust enough to arrive at certain conclusion. This study analyses the available published data on outreach of microfinance programmes in India, particularly the two major programmes that are operational at all India level, such as the self help groups (SHGs) promoted by NABARD and the SGSY scheme of Ministry of Rural Development, Government of India. The results on NABARD programme indicate substantial growth of number of SHGs and also credit disbursement at the all India level, since the programme is in operation. But there are significant variations across states, both in terms of number of SHGs getting bank loans and total amount of credit disbursed. The share of poor states in total number of SHGs getting bank loan has been much lower than that noticed in the southern states and the developed states. For example, the poor states such as Assam, Bihar, Madhya Pradesh, and Uttar Pradesh reported low number of SHGs provided with bank loan, while the corresponding figures are very high for Andhra Pradesh, Karnataka and Tamil Nadu. Further, the share of total loan disbursed also varies significantly across poor and developed regions. Two states, Andhra Pradesh and Tamil Nadu, account for about 65 percent of the total credit disbursed in the country under the NABARD SHG-Bank linkage programme whereas the share of MP, Bihar and other poor states remain less than 1 percent each in total credit disbursed.
Similarly, substantial progress can be noticed in the formation of SHGs under the SGSY scheme since its inception in 1999. By the design of the scheme, SGSY mostly targets the people below poverty line and therefore one would notice higher penetration of SHG formation in regions with high poverty. Hence, low income states, such as Madhya Pradesh, Orissa, Bihar and Uttar Pradesh experience higher number of SHGs formed. The relatively better off state of Andhra Pradesh is an exception as it has seen remarkable progress in SHG formation under any programme, be it by NABARD or the SGSY. However, the share of SHGs undertaking economic activity is significantly higher in developed states that have reported low incidence of SHGs, such as Punjab, Haryana and Karnataka. The proportion of SHGs undertaking economic activity in poor states is very low. The amount of credit disbursed to SHGs does not witness any significant pattern, which implies no systematic plan of direction to reach the poor and backward states. However, the study found the relationship between poverty and the progress of SHGs across states to be inconclusive, given the limitations of data unavailability.

The micro level analysis provides interesting insights in terms of depth of outreach of microfinance programmes. The results categorically confirm the exclusion of very poor households from participation in group-based credit programmes, at large. The regression analysis points out that the probability of participation is low at the lower end of income distribution and it increases with increase in per capita income of the household. Of course, it declines with very high level of per capita income of household, in particular for the top 20 percent of the households. Construction of a level of living index, by taking into account the multiple aspects of poverty, also indicates the exclusion of very poor households and very rich households from the programme. One would, however, argue that the rich households might never participate in the program. Since microfinance programs are aimed at meeting the credit needs of low income clientele, or supporting micro enterprises, they might not be attractive for the high income clients. They would participate only if the returns from joining the program were higher than their present occupation. The study also finds that some rich households did not join because they were discouraged by the programme agents to join the programme. Besides, it was also below the status of the women in the village from rich households to join the group to save small amount. But exclusion of the very poor is a matter of concern. Many of them reported their
inability to join the programme because they could not contribute to the group savings fund. Some of the households also reported that they were rejected by the group as the quorum for the group formation was complete. Therefore, the issue of rejection of households to join the group may not be ruled out on the grounds of vulnerability of the households alone.

A clear regional dynamics can be observed in the analysis of the probability of participation. Results indicate high probability of participation in Betul, which is tribal and more backward, than Sehore. But, the regional effect may not be explained in isolation. The interaction of programme characteristics needs to be examined before drawing any conclusion about the regional effect. Among the programme characteristics, the principal research question is whether the design and process variables of the programme affect group participation? It is found that the programme effect (PRADAN) was significant. In other words, the design and process variables of the programme do influence the household to participate in the group. However, there is no conclusive evidence on whether peer selection affects the exclusion of very poor from the programme, although qualitative observation point towards such a conclusion. Nevertheless, the exclusion of the poorest households is a matter of concern for the policy makers as it questions the hypothesis that microfinance is a tool for poverty alleviation. Therefore, results in this study manifest that, unfortunately, this is not going to help those who need it the most.

The most important research question of this study, from the point of view of policy makers, is to examine the impact of microfinance programmes on improving the income of the poor. This is examined from the survey data by applying the recent econometric technique, i.e., treatment effect regression model. In particular, the study estimates the impact of participation on household economic gains, such as (a) per capita income; (b) share of livestock assets; and (b) share of off-farm income.

Results show a positive and significant effect of programme participation on increase in the income of the household. This is expected, even for the poor, because the participant in the programme gets easy access to credit from group savings fund, although access to formal sector loans is directed more towards better-off income households. However, the impact is negligible for the households at the lower end of income distribution. Across the programmes, the predicted impact is found to be the
lowest for the SHG members of PRADAN; those are the poorest among the entire member sample studied by us. They belong to tribal region and most of them are STs. Although some of the SHG members by the SGSY are poor, the predicted effect on them at the aggregate level is found to be higher than that of the SHG members of PRADAN, particularly because some of the members of the SGSY are persons from high income group and therefore, the pull effect indicates a rise in slope of the impact coefficient. However, the pull effect of high income group is most noticeable among the members of SWASHAKTI SHGs, where the impact curve rose very slowly up to a point and then picked up sharply, thereby indicating higher impacts for people of higher income class.

Similarly, a significant rise in the livestock assets for the participant households than the non-participants can also be noticed. The predicted effect of participation on accumulation of livestock assets, plotted across per capita income and land size, rose with increase in income or land size, but at the lower end of the distributions, the effect of participation is relatively lower than that of the upper segment. Further, there is a regional effect as well, the relatively prosperous region showing relatively larger effect.

The predicted share of off-farm earnings (including earnings from livestock) increases with increase in landholding. However, the returns seem to be much higher for the very big land owners than the small farmers. This implies that the relatively large landowners, some of whom became members of the group, are able to diversify household income sources whereas the landless or small farmers are unable to do so. The impact of participation on increasing share of off-farm income is also noticeable for households with higher level of per capita income compared to the relatively worse-off.

The findings, thus, suggest that on the one hand, many of the very poor households are excluded from the program, and on the other, the gains from participation of the program are mostly observed for the better off section of households, particularly those with high per capita income or the large land holders. Therefore, credit to serve as a sole instrument of poverty alleviation does not seem to be plausible, without other corroborative mechanisms that help increase the potential of credit use by the poor or the small farmer.
Conclusion and Policy Implication

This study also attempts a systematic investigation of the various aspects that concern the repayment performance of the borrowings from the group. In particular, a comprehensive set of household level characteristics, group features and programme dimensions have been examined in an econometric framework to estimate the delinquency rates in group-base credit arrangements in order to ascertain the long term sustainability of these institutions.

The descriptive analysis of the programmes shows that the levels of group action and group performance are higher for the SHGs facilitated by PRADAN compared to those of SWASHAKTI. The SHGs under the SGSY are the lowest in doing any group activity. The SHGs facilitated by PRADAN are found to be a more homogenous set of persons with greater democratic processes in decision making, greater levels of monitoring, and high repayment rates achieved at least currently. Contrary to that, the SHGs under SGSY are more heterogeneous and report low levels of group activities. In addition, the performance of SHGs by SWASHAKTI could be placed in between the SHGs facilitated by PRADAN and the SGSY in terms of any indicator.

The delinquency model estimates of borrowings from group show that among the household specific characteristics, large loan size has a positive influence on increasing default rate. But, the study does not find any conclusive evidence regarding the effect of borrowing from multiple sources on default rates of borrowing from the group. Interestingly, large size of land holding does not lower a household’s delinquency rates. One could argue that most of the defaults occur in case of agricultural lending. So, large size of landholding would indicate large default rates, excepting the very large farm owners, who are in any case not present in group-based credit arrangements. However, this study finds that increase in share of agricultural income or share of non-farm earnings are associated with lowering the default rates significantly. Among the group features, group size along with group “cohesion”, as measured by principal component scores, are significantly associated with lower delinquency rates. This implies that, the greater the degree of homogeneity among the group members, the higher is the repayment performance, even when the group size is fairly large enough. “Maturity” of the group in terms of its years of operation, availing of benefits or incentives etc., is not found to be significant in influencing delinquency rates. Similarly, the effect of group “heterogeneity” is also insignificant in explaining...
delinquency rates of the group. Among the *programme dimensions*, none of their operation over the years has been able to reduce the delinquency rates significantly, rather with increase in years of operation, delinquency rates have increased (in case of PRADAN as also SWASHAKTI). The relationship is not found to be significant in case of SGSY, primarily because many of the SGSY loans have not past their due date when the field survey was being carried out. It is observed that in the initial years of group formation many of the groups function smoothly. When they are able to mobilise a large group corpus or they get bank loan, many of the internal power relations within the group start emerging. This often increases the bias in loan sharing and raises default rates. However, true econometric identification of the effects of programme-level factors has not been possible because of unavailability of appropriate data, but both sample statistics and programme designs suggest that, at least for the current default rates, *peer selection* and *monitoring mechanism* of promoting organization and *incentives* for group responsibility have been important elements in inducing group actions to discipline the borrowers. For instance, use of software in creating detailed database of the groups and the members, for monitoring the group functioning and also habituating them to banking operations, has been helpful to PRADAN in monitoring group meetings and also improving group repayment performance, recently.

**POLICY IMPLICATIONS**

This research is primarily based on a case study in a backward region and its findings are more suggestive than definitive in nature. However, findings of this study more or less corroborates the results of a large number of existing empirical studies on group-based microfinance programmes in the rural credit markets of the developing countries of Asia, Africa and Latin America. Therefore, it would be pertinent to draw upon the findings of the present study in exploring some of the vital policy implications.

One of the important implications of the study is that group-based microfinance, as implemented in the three programmes, cannot be taken as a sole instrument of addressing poverty. Most of the very poor households are left out by the programmes either due to their inability to join the programme or because their entry is restricted through several constraints. During the fieldwork of the study it was observed that
many of the gains from various government schemes are directed to members of the
groups, and moreover, there was an increasing effort by the government as also the
local microfinance institutions to link the government schemes to the members of the
groups in the villages. Although this is a welcome step, the distributional gains of the
public schemes should not be entirely directed to the group alone. In many groups, the
study found large heterogeneity among member households and most of the benefits,
say access to institutional credit and benefits from social schemes, are captured by the
better off section. Therefore, the linking of government schemes to groups alone
would again create a channel to drain resources to many of the better-off households,
who are non-poor. Nevertheless, many poor households are included in the group and
group participation increases their access to various institutions and also increases
household income, although less significantly than the better-off section. Most
importantly, group-led strategy addresses the multiple aspects of poverty that are
prevalent in rural society. Studies have documented the growing empowerment of
women in rural India because of their participation in groups and exposure to various
institutions. Similarly, examples of economic and also social gains from group-led
programme participation are found in many studies in other developing countries.
While accurate cost benefit analysis of group-based microfinance programmes vis-à-
vis other welfare programmes is not feasible because of the complexities of issues
involved in evaluation of group-led strategy, this study emphasizes that group-led
approach to be pursued more vigorously but it also suggests that other public schemes
should be designed to take into consideration the very poor that are excluded.

Another implication from the study is that membership in the programme per se does
not improve the credit access of the poor or the small farmer significantly. However,
membership is positively associated with improving access to institutional credit in
group-led credit contracts rather than earlier individual credit contracts. Microfinance
programmes have emphasized on designing loan products suitable for the poor and
also innovative loan collection mechanisms in order to improve access to institutional
credit and reduce delinquency rates. Importantly, the study finds that appropriate
design and process variables in group formation and monitoring mechanism helped in
reducing delinquency rates. But, many of the SHGs, as implemented in the three
programmes, had not emphasized on the instruments of peer monitoring or peer
pressure in loan collection, besides the design of the credit contracts does not rely on
joint liability. In the absence of joint liability, the concept of peer monitoring in Indian villages may not be very effective like that of Grameen members in Bangladesh because of cultural differences. Therefore, the study suggests that group-based credit would reduce delinquency rates and improve credit access to poor only with higher levels of effort being put by the facilitators to monitor members' transactions.

On the one hand, small loan size has acted as a disincentive for the members to undertake any productive activity. On the other, the study finds that large loan size is positively associated with delinquency rates, primarily because of allocation bias in loan sharing within the group. But with the design and process variables in group formation and monitoring mechanisms being effective, the findings suggest that larger loans would be more productive and would raise repayment rates by correcting for the allocation bias in loan sharing within the group. Further, the study finds rise in delinquency rates with increase in years of operation of the groups. This points to the fact that design of the programme and its non-formal nature is such that a member can manage to stay in the group even with defaults, and it also points to the lack of efficiency of the facilitator of the programme in pursuing innovative institutional arrangements. Therefore, the role of facilitators and also the levels of action by the groups are to be constantly monitored on various parameters through a proper mechanism, for scaling-up groups. For example, as software-based monitoring helped in reducing delinquency rates of the PRADAN groups, such innovative mechanisms can be designed for monitoring other activities of groups and also agents' level of action.

Another important element that influences the repayment rates is the design of the incentives, including subsidy-led credit programmes. It was largely found during the field work that the concept of group-lending got most of its damage from the subsidy driven SGSY programme. The loan subsidy provided to a member who belongs to a SGSY group, which was often found to be wrongly targeted, has a neighbourhood disincentive effect. The members in other group-based credit programmes also constantly have the feeling that their loans would be bailed out on a future date. Certainly, direct cash subsidy is found to be detrimental in building the future of rural group-based credit institutions, even if they do not miss out some of the poorest
households. Instead, the programmes should aim at providing other support services including education, health and infrastructure financing to help build the capacity of the poor and the poorest. Nevertheless, in any of the group-led microfinance programmes, subsidy would be a vice, not a virtue.

It is certain that the SHGs cannot function efficiently if they are left to themselves. The sustainability of an institution depends on all the parameters including design, incentive structure, monitoring mechanisms, power relations, etc. One of the important observations from the fieldwork is that in the initial years of group formation many of the groups function smoothly. When they were able to mobilise a large group corpus or they got bank loan, the dynamics of power relations within the group start firing up. That brings in the bias in loan sharing, raising default rates and sidelining the poor from the distributional gains of group participation. Such possibilities can be checked only if more emphasis is laid on democratic decision making, starting from selection of the members into the group.