

Process View of Peer Monitoring In Group Lending

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Abstract - *This study aims at providing a Process view model of Peer monitoring for the Self-help groups in India. As a phenomenon Peer Monitoring provides a window of opportunity to leverage Peer mechanism to create information asymmetry and set the trajectory for the sustainable growth of the Self-help group linkage programme. For the purpose of analysis, the Systematic Literature review approach has been used. A total of 42 articles have been shortlisted from the pool of 949 articles. The data was collected using organisational evidence, experimental evidence and stakeholder perspective. As per the principle of triangulation data has been selected from the multiple sources. This study provides a summary of literature in domain of peer monitoring and also provides a Process view of evolution in this field. The study concludes that there is a huge gap in the field of Microfinance. Group lending has emerged as a panacea to resolve issues of lack of collateral through Peer Monitoring, which has evolved as a three-step process of peer selection, peer monitoring and peer sanction. The group became more heterogeneous as per the risk propensity. Due to lack of literature in this domain, the theoretical comparison was not possible. This study is of practical relevance to the Policy makers and bankers to tackle issues in microlending in context of Group lending in rural India and will be the first ever study done to create a process view of Peer Monitoring in context of Self-help groups in India.*

Keywords – Social finance, Monitoring, Peer mechanism, Credit creation, Information asymmetry, Poverty reduction. Gender discrimination

INTRODUCTION

This research study aims at analyzing the role of Peer-to-peer monitoring in ensuring sustainability of the Self-help groups and Group lending, a unique approach to microfinance. This self-help group is unique approach to financial intermediation aimed at ensuring access to finance for the people without adequate collateral and creditworthiness, (Manuela Angelucci, Dean Karlan and Jonathan Zinman , 2015) and there by achieving objective of financial inclusion, (C Rangarajan , 2014). Sustainable development through group lending has been major area of research. Envisaged within the policy framework of sustainable finance is the concept of Social Finance, (Weber, O. and Ahmad, A., 2014) which is aimed at creating positive impact on Society and Environment, (Brundtland, G. ,

1987) . There are 1.7 billion financially excluded people globally, (Asli Demirguc Kunt, 2017) and these people lack physical collateral and suffer from information asymmetry, (Debraj Ray , 1998). Knowledge dissemination has been identified as a major reason for financial exclusion and access to information is recognized as a major public good to achieve sustainable development through perfect information. Most of the successful micro finance operations have extremely unique social interactions and institutionalized relationships which form the core of social capital that facilitates financial inclusion. These self-help groups have emerged as reservoir of knowledge about the financially excluded members and facilitate correction of information imperfection existing in the Rural financial systems, (Harriss J and P de Renzio , 1997) and facilitate financial

inclusion and development through reciprocity. In the absence of Microfinance, which makes use of social capital, for the achievement of the Sustainable development goals of poverty reduction and equality of gender, seems unachievable, (Pitt Khandekar and Cartwright J , 2006). Microfinance has been defined as unique measure to render financial services to the unbanked and the underbanked that have been excluded from the formal financial sector, (Beck, Thorsten, 2015). Various studies have established that fully developed Capital markets have potential to achieve the Sustainable development through a bottom-up approach, aimed at improving the lives of poor people by ensuring access to finance, livelihood and market linkages, (UNDP, 2014), (LedgerWoodhouse, 2011). Self help groups primarily cater to the needs of the micro borrowers by offering credit to the people who do not have access to collateral and lack credit worthiness, using social collateral as a substitute for the physical collateral. SHG linkage facilitates access to finance and better loan recovery, better savings and reduction of costs by virtue of social capital, (P, Basu P and Srivastava, 2005). Very few research studies have measured the impact of vertical and horizontal relationships in form of social capital on financial sustainability of the groups (Ito Sanae , 2003). Most of the studies highlight “What” the financial outcomes of a group mechanism in promoting saving mechanism, (Gurgetry MK, 2007), increased saving credit, (Deininger K and Liu K , 2009) income, (Puhazhendhi V. and Satyasai K.J.S, 2001) and asset ownership, (Greaney B, Kaboski JP, & Van Leemput E, 2013), recovery performance and reduced transaction costs, (Puhazhendhi, V., 2000). But there is lack of studies in domain of “How” the group mechanism facilitates financial discipline and sustainability, given absence of physical collateral and information asymmetry. (BIRD , 2019). Most of the literature in domain of Agency theory, discuss how lack of financial contract and information asymmetry leads to the problem of Moral Hazard and Adverse selection,

(Jensen, Michael C. & Meckling, William H, 1976) and these studies highlight the importance of Monitoring and incentive compatibility, but there is lack of studies in domain of social contract or social collateral that provides a substitute to physical collateral and group liability in Indian context, (Armendariz B and J Morduch , 2010) . In a community-based lending programme the author discusses about the importance of the social capital in form of horizontal and vertical relationships in ensuring sustainability. Peer pressure refers to the pressure exerted by the members of the self-help groups in case of extraneous lending by members of the group and can be regarded as the part of horizontal relationships, which is very much a part of social capital, (Ito Sanae , 2003). Existing research studies are reticent about how peer mechanism through horizontal and vertical relationships among the borrowers and the lenders in a group impact the financial sustainability of the groups & it is not a well-researched area, (Bastelear T Van , 1999). Besides that, (Timberg T and Aiyar C , 1984), argue that in case of an informal lending mechanism, such as Moneylenders, the lenders personally interact with the borrowers and have perfect information about the borrowers very similar to vertical relationships as described by (Coleman J, 1988). In lack of an enabling environment and access to financial markets, the poor people all over the world use informal sources of finance such as moneylenders, relatives and friends. Moreover, the issue of financial exclusion is multidimensional in terms of factor impacting financial inclusion such as supply and demand factors, (Kempson, 1999) and how these factors interact with information asymmetry to complicate the problem of financial exclusion in context of self-help group in Rural India is a research issue. In this context financial literacy, knowledge dissemination, physical access emerges as major issues of concern and there is need for institutionalization through social intermediation to ensure adherence to group norms such as maintenance of registers and books of account to facilitate

monitoring and financial inclusion through Self-help group bank linkage , (Lori Beaman, 2014) and this is an under-researcher area. This study will probably be the first of its kind to explore how social capital through peer mechanism and other causal factors impact sustainability of Self-help group. This study will also highlight the need for indicators to measure the level of financial progress of Microfinance in India, (Rozas, 2020).

Microfinance is the key to achieve complete financial inclusion through Social Banking (Weber, O. and Ahmad, A., 2014). Community banks, Microfinance Institutions and Social Finance hold great promise for more than 700 Million poor people globally, (LedgerWoodhouse, 2011).

Microfinance has been identified as a thread of Commonality between those who have resources and those who do not have resources. However, the recent literature suggests that the relationship between the Microfinance and Poverty reduction is more complex. Most of the financially excluded people do not possess the means and skills for banking. (Kempson, 1999), have recognised the reason for financial exclusion as price exclusion, condition exclusion, self exclusion and access exclusion. Besides, this financial exclusion interacts with lack of collateral and information asymmetry and high costs in a way that despite all interventions and policy changes financial inclusion of poor become extremely difficult, (Pricewaterhousecoopers, 2019). Concerns regarding financial exclusion are myriad with need to measure the degree of financial inclusion. (P, Basu P and Srivastava, 2005), in their research have brought to fore the issue of lack of metrics to measure the financial progress of Microfinance in India, (Rozas, 2020).

For a long period of time there is an ensuing debate on whether Peer to Peer monitoring in Self help groups provide solution to the problem of low repayment rates and non adherence to the group norms such as preparation of books of accounts and minutes of meetings, (Lori Beaman, 2014). According to

the extant literature Peer to Peer monitoring plays an important role in reducing repayment defaults and transfer risks from banks to the members, (Stiglitz, 1990). However, at the same time there is a school of thought that critically debates the role of Peer to Peer monitoring in ensuring financial sustainability of these groups through repayments, (A, Diagne, 1998).

OBJECTIVES OF THE STUDY

This research study is a first ever study that aims at discussing the role that Peer Monitoring plays in Financial Inclusion and reducing the delinquency of loan among the poor people..

METHODOLOGY

The study is a systematic literature review that seeks to study the extant literature available in domain in Microfinance. For the purpose of analysis, the data was collected using organisations evidence, experimental evidence and stakeholder perspective. As per the principle of triangulation, the data has been selected from multiple sources, which include Academic Journal, Article, Book, Reports, Monographs, Dissertation and the online search was done using the various databases. PRISMA framework has been used for analysis. A total of 63 articles were shortlisted from the pool of 949 articles.

S.NO	Databases
1)	SCOPUS
2)	EBSCO
3)	ABI/Inform
4)	ERIC
5)	Web of Knowledge
6)	JGATE
7)	Google Scholar

Figure 1: List of Online databases

Keywords
Adverse selection, Credit, Demand & Supply factors, financial inclusion, financial sustainability, Impact investing, Information asymmetries, Moral hazard, Monitoring, Savings, Social finance, Technology, Transaction costs, Types of SHG Linkages, Women Empowerment, Social Finance

Figure 2: Keywords

DISCUSSION AND ANALYSIS

In their study of whether Peer to Peer monitoring and Progressive lending leads to better repayment rates and better self-sufficiency of the self-help groups, (Maitreesh Ghatak and Timothy W. Guinnane, 1999) have found that effect of both Peer-to-Peer monitoring and Progressive lending is substantial. The major driving force behind the success of these groups and higher repayment rates is the social capital or the Peer pressure and reduction in the transaction costs by virtue of Supply credit contracts. For better repayments, in presence of the Moral Hazard, the scholars argue that the banks cannot apply sanctions on individual poor clients but the neighbors can impose non-financial sanctions. Moreover, since the clients can self-select them into the group and access credit despite bad loan history; the scholars argue that mitigation of the information asymmetry through access to local information can help resolve the problem of adverse selection. (Morduch A. &, 2005) argue that the Economists have been intrigued by the unique attributes of Peer-to-Peer lending contracts that play an important role in promoting the repayment of loans. In their seminal paper financial intermediation, loan able funds and real sector, (Tirole, 1997) the author discusses the financial incentive model of financial intermediation, the intermediaries are capital

constrained. According to the authors the level of monitoring depends on intensity of monitoring.

Graduating from the Micro financing to Progressive lending, the lenders in a Grameen bank style promote and incentivize good repayments with higher level of lending. Calling this process of change as Microfinance revolution, (Robinson, 2001) argued that Microfinance term was coined to provide insights into phenomenon of lending to the poors in rural India. Dragging up the legacy of debate regarding mission drift and pursuit of providing solvency to the insolvent borrowers, the scholars argue that subsidized model of banking was becoming unviable for the large commercial banks. The scholars argue that despite all the push and efforts, the policymakers till 1980s were unable to keep up the promise of access to finance for rural poors at affordable cost. (Bhaduri, 2006) refers to the debt traps and exploitative maneuvers of the moneylenders who charge exorbitant interest rates. There was felt a void for a sort of landmark initiative that provides livelihood or access to credit. (P, Basu P and Srivastava, 2005), in 1997 argued that the overriding principles behind the Savings and thrifts of a self sustainable financial structure, the information asymmetry was not present in the case of poor clients. Banks had no information about the credit worthiness of the clients. (Pischke, 1996), argue that there is an urgent need to introduce million of rural poors to the habit of regular savings. Recognizing the need for promoting thrift to ensure financial sustainability, the pioneer of Microfinance Mohammed Yunus introduced the concept of Peer-to-Peer lending and bank linkages in Bangladesh.

Social innovation in the form of group lending through use of social collateral and capital provided the panacea for the missing link i.e. the lack of Savings and physical collateral. The emergence of the concept of Social capital challenged the decades of thinking that poor in rural India cannot access finance. (Sanae, 2004), propounded that Peer pressure plays an

extremely important role in ensuring sustainability of Group lending model. Scholars long believed that moral hazard and adverse selection were the main reasons behind the lack of financial inclusion in rural India. But according to the contemporary researcher, Self help groups by the way of social capital and Social Collateral offered panacea against the financial exclusion. Based on the social capital, (Stiglitz, 1990) concluded that Peer to Peer lending provides solution to the problem of repayment default by the borrower and transfers the risk from the banks to the members leading to improvement in the plight of people. (Morduch B. A., 2003) taking this learning further propounded that in the rural poor markets, borrowers lack collateral but with group lending the borrowers can monitor each other. (Wydick, 2005) further highlights that group lending helps in solving the problem of asymmetric information in the credit markets and through the social ties mitigate the problem of information asymmetry. Recognizing the importance of Social capital many researchers came to define the phenomenon of social capital. (Robert, Putnam, 1993) defined Social capital as the set of horizontal relationships between people. Going further he defined Social capital as Social networks that impact the productivity of community. (JS, Coleman, 1988) , further defined Social capital as varied entities. (Bourdieu, Pierre, 1991) , argued that the Social capital as aggregate of actual or potential resources is linked to the possession of network and complex relationships. Much research has been devoted to investigate how group lending model has been replicated all over the world to promote financial inclusion. This research study propagates that contractual innovation as a financial edifice lacks a critical element of information asymmetry. The paper further emphasizes that the missing link in form of physical collateral is supported through Social collateral which provides the required support for the achievement of Sustainable developmental goals of financial inclusion.

Peer to Peer Monitoring

Going further the study aims at analysis of four different models of lending and peer to peer monitoring. (Stiglitz, 1990) in his research paper argues that major reason for the success of the money lenders in the rural regions is that these money lenders have information about the borrowers. Failure of the formal banking in rural scenario is primarily due to the lack of information or information asymmetry. The formal institutions and the banks lack any information about the local borrowers. Thus, the formal bank does not play any kind of significant role in the financial economy. (Stiglitz, 1990) mainly ameliorates the problem of Moral Hazard. Expanding on Joint liability the researcher argues that the action of the agents in terms of choice of risky or safe project is not known to the lender. Though safe borrowers will have to cross subsidize the risky borrowers, yet the safe borrowers will not be willing to subsidize the risky borrowers. This gives rise to the utility of choice of a safe project. According to him, the choice of the safe project is the important decision. (Abhijit Banerjee, Besley, Guinnane, 1994) have discussed the problem of joint liability through the lens of a costly contract whereby borrowers can inflict higher penalties on defaulting members. This model is a representative model of moral hazard problem. (Besley, Timothy and Stephen Coate, 1994), have discussed the problem of strategic default which highlights the need for the stringent enforcement of group norms. The repayment of loans depends on profit outcomes which are enforceable through financial and non financial sanctions within the context of social Joint liability groups. (Maitreesh Ghatak and Timothy W. Guinnane, 1999) in their representative model of adverse selection have discussed the incentive of borrowers to choose similar risk type. The researchers argue that the banker or the lender provide a single blanket rate for all type of borrowers. However, the safe borrowers will not be willing to subsidize the risky borrowers. Thus, this model emphasizes the importance of

local borrowers about each other which leads to matching of the similar risk type. (Conning, Jonathan, 2005) in their research paper have discussed the representative model of Moral Hazard. The authors argue that the institutional framework of joint liability, peer monitoring is assumed to be far superior as compared to the individual liability monitoring. (Chee, 2002) suggests that group lending as a method has several advantages for liquidity. In peer monitoring, peer sanction is far less researched area. In their study the researcher held that joint liability model with incentives rationale can mitigate the much harped free rider problem. What constitutes free rider problem is high cost of incentives to peer monitor and sanction the defaulting members. This pragmatic approach indicates the possibility to improve project outcomes through repeated action. Repeated projects increase the creditworthiness of the borrower and reduce the cost of monitoring. Therefore this landmark model by (Chee, 2002) is built on premise on institutional sustainability which mitigates problem of information asymmetry leading to financial sustainability of the group. Celebrated by many, the landmark model of Grameen bank has been tested and analyzed by (Rai, 2000) to address issue of enforcement faced by simple group lending model. Authors or researchers argue that in scenario of information symmetry, borrowers can mitigate the risk of default by providing cross monitoring reports on default in repayment about other borrowers to the intermediary or to the lenders. Thus they can provide mutual insurance to each other facilitating efficiency of monitoring and preventing collusion of banks.

From the study of extant literature it becomes apparent that there is lack of theory on how social collateral through peer to peer monitoring impacts financial behavior, (Luigi Guiso, 2004). From the dearth of literature it becomes apparent that Peer to Peer Monitoring in form of Social Capital /Social Collateral is intangible. None of the studies capture the impact of social capital through Peer-to-Peer monitoring.

(Demsetz, 1971), recognised the importance of specialization and authority in form of leadership in promoting cooperative behavior in monitoring a group through peer mechanism. The authors particularly argue that the centralized structure definitely promotes cooperative behavior. They argue that a centralized structure definitely promotes jointness of team to promote cooperative work. Contracting and monitoring work effectively in presence of rights, stakes and incentives. However, in presence of joint output specialized monitoring becomes imperative to sole free rider or moral hazard problem. Thus, the author emphasizes the importance of agency and contracting in a small firm with profit sharing. Citing the example of mutual corporations, the researcher highlights the importance of market linkages to resolve the issue of moral hazard and adverse selection problem. (Houngbedji, 2014), in their research paper have discussed the impact of risk aversion on varied type of monitoring schemes. In this theoretical model, the author argues that shirking decreases with the level of risk aversion. The study concludes that impact of monitoring increases in case of risk averse behavior.

Temporal Strategy – Evolution of Peer-to-Peer Monitoring Model (A Process View)

From the analysis of the extant literature, it becomes clear that process for Peer-to-Peer Monitoring comprises of three stages Peer Selection, Peer Monitoring and Peer sanction.

Type of Model	Screening/ Peer Selection	Peer Monitoring/ Incentive	Enforcement/Peer Sanction
Model	Adverse Selection	Moral Hazard	Enforcement
Stiglitz, J. (1990).	Lenders can play an	After selection, in a	Safe borrowers

Peer Monitoring and Credit Markets, World Bank Economic Review.	important role by using strategies such as separate forms with different debt covenants for borrowers as per their risk propensity.	heterogeneous group that has both safe and risky borrowers, the members of such informal group can lead to moral hazard or free rider problem taking up risky projects. This could lead to failure and non-repayment.	understand the cost that they have to bear of the risky borrowers and can use peer pressure to sanction such behaviour
Abhijeet Banerjee, Besley, Guinnane. (1994). Thy neighbor's keeper the design for credit cooperative with theory and test. <i>The Quarterly Journal of economics</i> , 491-515.	State or Government agencies such as SHPI (Self-help group Promotion Institutes) can play an important role in screening the members	After selection the members of a group can indulge in strategic default to leverage their limited liability. This includes act of cooperation and Nash Equilibrium	Lender will have to sanction the behaviour. In lack of social collateral lender can refuse to provide credit to such people
1.Maitreesh Ghatak and Timothy W. Guinnane. (1999). <i>The economics of lending with joint liability Theory and Liability</i> 2. Conning, Jonathan. (2005). <i>Monitoring by Delegates or by the Peers? Joint Liability Loans under Moral Hazard.</i>	Lenders can use an interim period such as SHG Bank Linkage period of 6 months to generate credit history of members for selection	Members can at the outset identify their risk match and form groups with the members with similar risk type	Cross reporting by the members to the lender and use of Peer pressure can be used for controlling default in a homogenous group

Figure 1: Themes in Peer-to-Peer Monitoring

CONCLUSION

This study aims to distill and showcase the evolution in domain of Peer monitoring. Traversing the plethora of studies in domain of Social Finance, study concludes that there is a

huge gap in the field of microfinance. Group lending has emerged as a panacea to resolve issues of lack of collateral, lack of creditworthiness and information asymmetry through Peer monitoring. From the review of extant literature, it becomes apparent that Peer monitoring comprises of peer selection, peer

monitoring and peer sanction. Moreover, the earlier studies laid thrust on heterogeneity of the groups, which comprised of members with all degrees of risk propensity. These studies saw the role of lenders in screening members through strategies such as debt covenant. Later research appeared that emphasized the role of limited liability in leading to strategic default. And eventually the contemporary research asserts ability of members to match risk type and finally members can monitor through the cross-bank monitoring reports. And reports also emphasize the need for sanctions in form of financial and non-financial sanctions.

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