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A Review of Microfinance-Led Development: Evidence from Gujarat

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Abstract This paper is based on the premise of microfinance for financial inclusion mechanism leading to the development of social systems and subsystems in Gujarat. The study also tries to examine microfinance model and implications in the context of various initiatives taken by the government and non-government agencies in Gujarat supported by field evidences. The present study relied on both theoretical and empirical methodologies. Field data comprised 225-sample size, collected through systematic sampling in Gujarat; secondary data has been compiled from relevant print and electronic sources. Findings suggest that microfinance interventions should not be limited to credit deployment; rather, they should focus on group formation, savings, livelihood promotion, enterprise development and marketing of produce. The paper concludes that microfinance plays an important role in socio-economic development.

Keywords Gujarat · Microfinance · Women · Self-help group · Livelihood · Socio-economic development

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Introduction

Indian villages are challenged with issues related to poverty, illiteracy, lack of skills, poor health care systems, etc. These are problems that cannot be tackled individually but can be better solved through group efforts. Today, these groups in rural horizon involved in such activities known as self-help groups (SHGs) are a vehicle of change for the poor and marginalized. The formation of SHG is directed towards organizing poor and marginalized to come together for solving individual or collective problems (Yunus 2008). The SHG model of development is used by the government, NGOs and other agencies worldwide. The poor collect their savings and deposit them in banks; in return, they receive easy access to the loan with a small rate of interest to start their microlevel enterprises (Hashemi et al. 1996).

The microfinance model has evolved due to committed individuals and financial agencies promoting self-employment leading to poverty alleviation. There is banking, non-banking, national and international developmental agencies playing the significant role in encouraging microfinance as a change agent. In the early stages of microfinance movement in India, NGOs played the vital role in innovating and developing the model. In the 1980s, government authorities provided the needed impetus and worked with development organizations, non-banking financial institutions and bankers to encourage the formation of these savings and credit groups. State governments are encouraged to provide and develop an institutional support system for creation of these groups (Parwez 2015). During early 1990s, policy makers realized that SHGs are just financial intermediation but can be an effective developmental instrument for socio-economic development.

Though the regional outreach of the programme is highly skewed, concentration of microfinance activities is in southern states, started picking up in other states after 2000 (Ghosh

2012; Parwez and Shivani 2015). In the last four decades, microfinance has emerged as the most prominent form for availing small loan and other financial services. Microfinance movement is a reflection of poor people coming together to save money, kept in a common fund to meet emergency needs and to be loaned among members as decided.

Microfinance-based SHG formation has been recognized as an effective tool for capacity building of the poor, as an alternative process of development (Rao 2003). Literature suggests that SHG does enhance qualitative equality for women socially, enhances decision-making capacity and encourages participation in democratic, economic spheres of life (McKiernan 2002; De and Sarker 2010; Parwez 2014). The basic directive principles of SHGs are group approach, mutual trust, organization, cohesiveness, a spirit of thrift, need-based lending, collateral free, women-friendly loan, peer group pressure and capacity building leading to empowerment. Financial inclusion programme is using microfinance as the medium of development via inculcation of habit to save, then used for economic activities. They generate financial resources to develop small interest-bearing loans for their members to meet urgent and economic purpose-based needs (Yunus 2008). This mechanism develops a norm that focuses on SHG functioning, designed by group members.

A general model of microfinance programme is same across the region, led by small groups, economically homogenous in nature. The microfinance model has motivated SHGs to develop further and get federated into larger organizations. Depending on geography and demography, several clusters come together to form an apex body known as federation. SHG-based cluster and federation are involved in intergroup loaning, sharing of costs, exchange of ideas and discussion of mutual interests (Arunachalam 1999).

The present study is an attempt to examine the status of microfinance in Gujarat from national- and field-level data. It also tries to assess socio-economic impact of microfinance on local population (SHG members) and will provide a better understanding of the role played by microfinance in the state of Gujarat, where social movements are generally ignored.

This paper has five major sections: the first section talks about microfinance (with women perspective) and tries to theorize the concept. The second section discusses the concept of microfinance supported by national-level data. The third section talks about the performance of microfinance sector in Gujarat. The fourth section provides an understanding of ground-level interventions and prevailing models. And, the fifth section focuses on analysis and interpretation of field-level data followed by further discussion and policy implications.

Research Methodology

The study tries to address the issue both theoretically and empirically. The method employed in this study is descriptive in nature and involves data collection from rural community members (SHGs) for determination of whether microfinance does contribute to enhancement in socio-economic condition of respondent via poverty elevation, livelihood development and other relevant indicators.

This paper is based on both primary and secondary data. Purposeful sampling technique is fundamental to the methodology applied in this study. Primary data has been collected through instruments like questionnaire, in-depth interviews, observations, content analysis, etc. Stratified sampling method has been applied for segregation of operational area for data collection in Gujarat, divided into the west, north and south zones. The primary data from SHG members was collected through survey from the said operational area. With the application of scientific sampling method, a total of 225 samples were collected from districts of Kutch, Banaskantha and Panchmahal. Sample size also denotes the number of elements selected for the study considering time and financial constraint; 189 workable samples (SHG members) were found from survey process.

Sample Frame

For field study, SHG members were randomly selected from Kutch, Banaskantha and Panchmahal (Tables 1 and 2). Furthermore, the results are from the characteristically distinct operational area of Gujarat. About 75 members from each operational area are selected using random and snowball sampling, reaching to a total of 225 members, interviewed with the help of semi-structured questionnaires (open and closed ended). The quantitative data collected is compiled and analysed using statistical techniques.

The field data relevant to the study was elicited mainly from SHG members as the primary source. The separate semi-structured questionnaire was used to collect information from SHGs and members at both group and individual levels. For a better understanding of phenomenon, data was also collected from government offices and NGOs and is cited in the paper.

Data Sources

A large part of the study is based on literature review and secondary data sources. A literature review has been focused

Table 1 Details of the SHGs selected for study

Sl. no	District	Number of SHGs covered	Number of members
1	Kutch	9	75
2	Banaskantha	13	75
3	Panchmahal	11	75

Source: from field data, 2015

on the facet of financial inclusion, SHGs and women studies at national and international levels. The secondary data sources are annual reports of the National Bank for Agriculture and Rural Development (NABARD), Ministry of Human Resource Development, Self-Employed Women's Association, Aga Khan Rural Support Programme, Sadguru Foundation, CRISIL, Gujarat Livelihood Promotion Company, District Rural Development Agency, economic survey, articles and other published and unpublished material.

Women and Microfinance

The SHG programme in India has mainly focused on the establishment of sustainable source of credit-led livelihood development for the poor. Women, in general, face problems in every step of life from family, society to market. Kannabiran (2005) argue that feminisation of poverty is a serious concern, giving way to the feminisation of microcredit. Women are preferred as a client because they can be persuaded to operate on gendered notions, of shame, decency and discipline for regular saving and repayment of debt. The rural women are the marginalized group in the society because of socio-economic constraints. They remain in backward and lower position of the social hierarchy. Studies have shown that they can lift themselves from the morass of poverty and stagnation through the formation of collective action (Suresh and Saravan 2013, Parwez 2014).

The SHG movements have given way to the mobilization of even the poorest women, so, they can manage their own well-being and be benefited from economic opportunities. The expansion of microcredit is an important tactic in an overall strategy for rural growth (Jonathan 2010). SHG membership creates capacity and social awareness among poor women and helps in improving the living standard and making an identity for themselves. It led to institutional development for easy access to credit services and reduced dependency on money-lenders (NABARD 2002).

Table 2 Status of microfinance and SHGs in major states of India

Sl. No.	States	2012–2013			
		No. SHG	Saving	No. SHG	Loan disbursed
1	Odisha	522,837	41,827.81	47,676	47,328.1
2	Bihar	270,890	16,967.64	30,574	22,201.69
3	Gujarat	208,410	17,555.05	14,756	11,982.28
4	Maharashtra	687,717	51,370.41	54,756	11,982.28
5	Madhya Pradesh	159,457	12,321.19	15,182	13,726.83
6	Uttar Pradesh	403,932	39,200.82	33,140	45,048.42
7	Punjab	35,060	3635.48	2021	2278.92
8	Andhra Pradesh	1,421,393	274,179.2	484,292	1,116,440
9	Tamil Nadu	873,012	84,966.77	150,586	291,610.2
10	Karnataka	645,695	115,618.9	145,733	229,940.7
11	India	731,755	821,725.5	1,219,821	2,058,536.4

Source: computed on the basis of NABARD report, 2014–2015

Conceptually, SHG-based microfinancing is fairly simple; its management needs to be sustainable and investment must be intensive. The purpose of these groups was limited by unsatisfactory support from financial institutions and affects their ability to fulfil potential (Usha 2003). Financial inclusion promoted SHG-BLP and includes several financial sources, such as microfinancing institution, commercial banks, Regional Rural Bank (RRB) and Non-Banking Financial Companies (NBFC) (established by Reserve Bank of India). SHG-Bank Linkage Programme led microfinance movement at fast track mode and expanded to 4.8 million SHG formations, covering 97 million families, making it the world's largest programme on credit services to the poor. According to the World Bank (2003) and Nair (2005), over 700,000 SHGs received over Rs. 20 billion loan from banks and NBFC and benefitted more than 10 million people. The outline repayment of loans is around impressive 95%. The savings by these groups are estimated to be at least Rs. 8 billion (NABARD 2013).

The process of group formation has been encouraged as a tool of development, strategy for poverty alleviation, a creation of social awareness and human development. Group formation is the core to the programme and is challenging, directly or indirectly activating the process of movement (Asia and the Pacific Division, IFAD 2006). Further, it concentrates on the economic well-being of the poor while providing the opportunity to women for participative function (Kannabiran 2005). Suresh (2003) summarize several factors of SHG functioning in the context of operations, internal problems, leadership and institutional support.

There is a certain limitation in credit management programme as loan outstanding is on the higher side (discussed next in the following sections); every return on loan possibility creates a guaranty to inclusive processes of microfinance. Income level and literacy are important tools for SHG-Bank Linkage Programme (SBLP) loan guaranty, to be processed in rural areas (Narang 2012). The SHG-Bank Linkage Programme is mainly concentrated in the region with strong bank network and has not been that inclusive in poor banking areas (Satyasai 2003). Henceforth, programme cannot yield the desired result and correct the imbalances of outreach (Satyasai 2008).

It has been said that non-governmental organizations are favouring certain types of villages to offer financial services. NGO generally operates in villages without anticipation of developing linkages; i.e. they move independently with their own development model, being compared with others (since some groups are formed by the bank and some are NGO formed). There are not many discernible differences in choice of the village with old and new SHG members; thus, discernible evidence of NGO favouring certain village is difficult to determine (Swain and Wellentin 2011). It is the need of time to develop policies focusing principally on organizing poor via SHG mechanism rather than solely concentrating on credit and saving, complemented by promotion of economic activities (World Bank 2003). On this backdrop, this study tries to further examine the effectiveness of financial services (microfinance) in the following sections.

Microfinance in India

While no definitive date or year has been established for an actual conception of SHGs in India, the practice of small groups of rural and urban people banding together is well established (Usha 2003). Formally, 'microfinance' was acknowledged with pioneering work by Mohammed Yunus of Bangladesh. The movement of microfinance started in the mid-1970s, but formal structure of microfinance can be traced in the early 1980s. NABARD[1] has been the main activator of microfinance movement. The real impetus for microfinance was initiated during 1991–1992 with introduction of SBLP.[2] It has grown at a tremendous pace during last two decades and emerged as the most prominent means of delivering microfinance services (Puhazhendhi and Badatya 2002; Ghosh 2012). This section of the paper further focuses on the status of microfinance at the national level.

The concept of microfinancing and self-employment activities in rural areas has developed considerably over last four decades. It is basically a rotational investment to motivate the poor to empower themselves and practice the dictum 'save for future, use resources in the time of need.' Theoretically, microfinance is known as a microcredit or microlending body with the provision of small working capital to self-employed or self-employment-seeking poor (Basu and Srivastava 2005). Conceptually, NABARD defined microfinance as 'provision of thrift, credit and other financial services of very small amounts to the poor in rural, semi-urban and urban to meet their financial needs; with the only qualification that (1) transactions value is small and (2) customers are poor'.

Microfinance movement has witnessed various models promoted by the government agencies and NGOs. Few of these schemes have failed, and experience has been a lesson to develop more effective mechanisms (Parwez 2016). These programmes vary from region, state, rural, semi-rural, banks and non-banking institutions with a customized mandate of financial inclusion. In 1999, the Government of India merged various microcredit and microfinance programmes, refined it and reintroduced it as Swarnajayanti Gram Swarojgar Yojana (SGSY). The directive of SGSY was to provide subsidized credit facility to the poor and marginalized section of society through banking services to facilitate livelihood development; the programme has grown massively over the years.

The SHG model of financial inclusion is highly popular throughout the world as well as in India as a key financial intermediary for the poor. Various forms of microfinance institutions (MFIs) exist, including agencies such as banks, non-banking and cooperatives. Initiatives like Grameen Bank[3] provided needed impetus to microfinance movement early on (Jain 2003). Private sector microfinance institutions include private banks, non-banking institutions and NGOs and provide financial accessibility and requisite support system to the poor.

In 2005, the Government of India introduced few measures in the annual budget for effective working and development of MFIs. Specifically, a provision that MFIs would be eligible for commercial borrowings allowed MFIs and banks to conduct business with enhanced capacity (Nedumaran et al. 2001; Jena 2007). The Government of India is considering the enactment of 'Microfinance Act' to lay down framework, regulations and guidelines in the line of ongoing debate. But nationalization of the microfinance sector is highly discouraged; past experiences with nationalization strategy, particularly of banking sector, did succeed in some cases but failed in many accounts (Parwez and Shivani 2015).

It can be said that SHGs and MFIs are the two most prominent pillars of microfinance in India; it has emerged as an important programme to cater needs of the most underprivileged people, i.e. tribal, *Dalits*[4] and women (Tracey et al. 2006). The microfinance sector has become means of financial support to the poor, especially in rural areas. Evidently, savings of SHGs have increased to approximately 7.5 million with member base of about 98.1 million. The SBLP has shown an encouraging sign of active borrowings by SHGs and led to growth of 4.9% in SHG membership (NABARD 2014). But the major concern remains to be the ever-increasing poverty

[1] NABARD is an apex development bank in India. Its main focus was on upliftment of rural India by increasing the credit flow for the elevation of agriculture and rural non-farm sector. It has been entrusted with 'matters concerning policy, planning and operations in the field of credit for agriculture and other economic activities in rural areas in India.' It is active in developing financial inclusion policy and is a member of the Alliance for Financial Inclusion.

[2] With a view to evolving supplementary credit strategies for reaching the unreached poor in rural areas like landless agricultural labourers, rural poor/women, etc., in a transparent and a cost-effective way, NABARD launched its pilot phase of the SHG-Bank Linkage Programme in February, NSSO (1992) data reveals that 45.9 million farm households in the country (51.4%), out of a total of 89.3 million households, do not have access to credit, either from institutional or non-institutional sources.

[3] The Grameen Bank is a Nobel Peace Prize-winning microfinance organization and community development bank founded in Bangladesh. It makes small loans (known as microcredit) to the impoverished without requiring any collateral.

[4] Dalits are 'outcastes' falling outside the traditional fourfold caste system consisting of the hereditary Brahmin, Kshatriya, Vaishya and Shudra classes; they are considered impure and are therefore socially excluded from the rest of society.

and the need of empowering the most neglected sections and region through organized support programmes.

It has been noted that the top 3 states in terms of SHGs linked with the bank Andhra Pradesh (including Telangana), Karnataka and Tamil Nadu reported SHG membership of 1,421,393; 873,012; and 645,695, respectively (Tables 1 and 2), which are in southern India, capturing 56% of total SHGs. These three states share 70.96% of the total bank loan to SHGs (2011–2012). The dominance of these states also reflected, as they provided a total of Rs. 1637990.99 million, 79.47% of total loans in 2012–2013. The poor-performing states (Punjab, Madhya Pradesh and Gujarat) reflect on the lack of inclusiveness in policy approaches, combined with government apathy (Tables 1 and 2). It is evident that southern India has performed better than the rest of India. It also a reflection of the fact that microfinance is being considered as the major tool of financial intermediation in southern states.

Additionally, NABARD (2015) report reveals that institutional credit outstanding on SHGs exceeded up to Rs. 32,000 crore (March 2011), significantly high with no parallel example elsewhere in the microfinance sector. The average loan for an SHG member on average stood at Rs. 4900 (2010–2011), compared to Rs. 4570 in 2009–2010, reflecting on increase borrowing by SHGs. It can be observed that the microfinance model has developed over the years, structured to assist the lower-income group (Dahiya et al. 2001), leading to the objective of capability enhancement on the face of socio-economic challenges (Swain 2006).

It can be noted that the major beneficiaries of microfinance initiatives are women-based SHGs; they form more than 75% of SHG members in the country. The total saving amount by the SHG members in the last 5 years has reached to Rs. 8217 crore (2012–2013). Loan amount disbursed in 2012–2013 to SHGs and loan amount outstanding from SHGs are found to be on higher side, which is a reflection of gradual increase. Reports also reveal that agencies mainly focused on saving and loan disbursement rather than the promotion of sustainable livelihood development. Table 3 also reveals that commercial banks[5] have the highest saving and credit-linked SHG membership, accounting to 40.77 lakhs and 7.36 lakhs SHGs, respectively. Regional Rural Banks (RRBs)[6] also have a considerable share (3.12 lakhs SHGs) followed by cooperative banks[7], which stood at the third position.

The high growth of SHG-Bank Linkage Programme has been reported in north-east region and other priority states in the last 5 years. There has been a slight correction in the southern bias; a share of the southern region has declined from 49.8% in 2013–2014 to 44.9% in 2015–2016. Saturation of microfinance market especially in Kerala, Tamil Nadu and Puducherry has resulted in a decline of SHGs linked. North-eastern region has recorded a 29% rise in the number of SHGs during 2015–2016 owing to a jump in Tripura, Nagaland and Assam. All states in northern, north-eastern, western and eastern regions have registered an increase in the formation of new SHGs.

Table 3 Number of SHG agency wise, saving, disbursed loan and outstanding loan (Rs. lakh)

Particulars	Commercial bank	RRB	Cooperative bank	Total
No. of SHG saving link with bank	4.6	2.1	1.2	8
No. of SHG holding disbursed loan	7.4	3.1	1.7	12.2
No. of SHG having outstanding loan	26.17	12.93	4.43	43.35

Source: computed on the basis of NABARD annual report, 2014–2015

There is massive investment in microfinance sector under the umbrella of the financial inclusion programme. Even though large-scale investment is taking place but without adequate attention on the creation of a skilled human resource for implementation of rural-based programme, the objective may not be achieved. The focus should be on strengthening of SHGs by capacity building (skills development), commercialization of ideas and institutional support leading to sustainable livelihood.

Moving from national- to state-level analysis of Gujarat on several indicators presented in the next section, supported by secondary data, it may provide better picture and understanding of ground realities.

Microfinance in Gujarat

Data reveals that 16 states had shown growth and 11 states witnessed declining growth rate in client outreach. The client outreach is found to be higher (1.6 million) in Uttar Pradesh (UP), followed by Gujarat (1.53 million). However, Gujarat had shown maximum growth in the portfolio with 10.8 billion, closely followed by UP (6.3 billion) (NABARD 2015). With 57% rural population in Gujarat, the microfinance sector can consider it market with massive potential. This section discusses the overall performance of Gujarat in SHG-Bank Linkage Programme (Table 4).

Data suggests that the maximum numbers of potential SHGs in Gujarat are in the districts of Panchmahal, Banaskantha and Sabarkantha. The distribution of the SHGs with respect to financial institutions suggests that commercial banks have provided assistance to 96,674 SHGs; RRBs

[5] A commercial bank is a financial institution that provides various financial services, such as accepting deposits and issuing loans. Commercial bank customers can take advantage of a range of investment products that commercial banks offer like savings accounts and certificates of deposit.

[6] Regional Rural Banks are local-level banking organizations operating across India. They have been created with a view to serving primarily the rural areas of India with basic banking and financial services.

[7] Cooperative banking is retail and commercial banking organized on a cooperative basis. Cooperative banking institutions take deposits and lend money.

Table 4 SHG-bank saving linkage in Gujarat (amount in Rs. lakh)

Agency	2010		2011		2012		2013	
	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount
Commercial banks	96,674	20,313.52	111,708	12,285.44	136,741	9767.96	118,320	11,442.29
Regional rural banks	44,169	2097.13	50,625	2507.22	58,713	2982.96	58,685	3942.43
Cooperative banks	27,337	9779.5	30,501	2510.47	31,172	1212.31	31,405	2170.33
Total	168,180	32,190.15	192,834	17,303.13	226,626	13,963.23	208,410	17,555.05

Source: computed on the basis of NABARD annual report (various years)

assisted 44,169, followed by the cooperative bank with 27,337 SHGs across Gujarat in 2010. The absolute number of SHGs increased from 2010 to 2012 and then declined for the later year. Even though there is a dominance of commercial bank, RRB has excelled in connecting with the poor; further, there is a constant increase in number in 2013, onwards.

As expected, commercial banks are linked to maximum SHGs,[8] closely followed by RRB performing better with each passing year. Cooperative banks reflect fluctuating pattern as not being able to connect with masses. It can be observed that the total amount of loan disbursed to 37,059 SHGs is worth Rs. 10,869.66 lakh (2009–2010), declined in a later year (Table 5). The data also reveals fluctuating nature of the sector. Growth was negative from 2009–2010 to 2010–2011, followed by a growth in a later year, and then again declined in 2012–2013, mainly affected by the controversial environment[9] of microfinance sector.

It has been noted that the total amount of outstanding loan is continuously increased throughout the year. There is a considerable increase in the number of SHG between 2009–2010 and 2012–2013. Table 6 highlights that outstanding loan against 74,540 SHGs amounted to record Rs. 15,544.2 (2010–2011), even though the number of SHGs linked with bank decreased in absolute number. Outstanding loan to SHGs linked to RRBs gradually increased, whereas in a case of the cooperative bank, it declined.

There was a positive growth in prospects of commercial banks and RRB for the year 2010–2011, though the linked SHG numbers decreased in later years (of 2011–2012 and 2012–2013). The number of SHGs that received the loan in commercial banks, RRBs and cooperative bank stood at 51,525; 18,501; and 2645, respectively, for the year 2012–2013; there was a substantial increase in loan disbursed to previous years. It must be noted that cooperative banks' performance is inconsistent, mainly limited by lower outreach.

Evidence of Microfinance Interventions in Gujarat

Ministry of Finance and CRISIL report (Bharamappanavara and Hanisch 2013) on financial inclusion says that Gujarat has not only slipped from 17th position in 2009 to 18th in 2011 and further declined to 19th in 2012 in all India ranking. Gujarat's 'inclusive score' in 2012 was 40.6 on a scale of 100, which is 2.2 points below the national average of 42.8. The rural population of 57%, combined with limited financial outreach, reflects on massive potential for the microfinance sector.

Based on the ground experiences of several NGOs (for example, Aga Khan Foundation), the status quo of rural livelihoods and agriculture-related work is either not feasible or absent. Situation gets aggravated as government-supported agricultural extension programme is practically absent at village level, due to inadequate human resource and emphasis on agriculture-based subsidies. Problems in rural Gujarat are generally motivated by the scarcity of resources, where private traders enjoy oligopoly economies in the supply of input such as seeds, fertilizers and other materials on credit. This often leads to exploitation of farmers and rural population (especially tribal), complemented by the poor awareness and information base (Parwez and Shivani 2015).

Panchayati Raj Institutions (PRIs) are involved in extension work on a large scale in Gujarat. The two most important interventions have been (1) to recruit village youth as a Para-worker for agricultural extension work, while creating a sense of ownership among villagers and (2) to develop a framework for input (fertilizer, seeds, etc.) supply chain of institutional stakeholders, like PRIs, SHG federations and private traders. Interventions have been introduced to create forms of livelihood. Additionally, government agencies are contemplating with an idea to provide the license to PRIs and SHGs along with cooperative federations for the supply of inputs. The critical situation of livelihood in Gujarat is an ideal condition for microfinance-based intervention to be undertaken.

Microfinance-based interventions are an important part of the Gujarat Livelihood Promotion Company (GLPC), mainly composed of credit linkage of the SHGs with banks. It had introduced an aggressive microfinance campaign to network all eligible SHGs in Gujarat with financial institutions to cater

[8] Commercial bank accounts for largest share of SHGs, due to higher accessibility from the large number of a branch in rural areas.

[9] Ill practices in Andhra Pradesh, leading to indebtedness and followed by suicide in some cases, eventually led the state government to introduce microfinance legislation. RBI was forced to come with rules and guidelines. There was a negative impact nationwide for next few years.

Table 5 Disbursed loan in Gujarat (amount in Rs. lakh)

Agency	2009–2010		2010–2011		2011–2012		2012–2013	
	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount
Commercial banks	25,926	6140.2	16,503	5762.86	19,281	6873.62	9304	7353.4
Regional rural banks	7108	1999.63	6113	1606.14	8001	5122.88	3447	2534.97
Cooperative banks	4025	2729.83	2984	1631.15	3054	1120.33	2005	2093.91
Total	37,059	10,869.66	25,600	9000.15	30,336	13,116.83	14,756	11,982.28

Source: computed on the basis of NABARD annual report (various years)

needs of marginalized and deprived sections of the society. For executing the programs, GLPC had signed a Memorandum of Understanding (MoU) with State Level Banker's organization (RBI, NABARD and National Banks) and introduced the provision for cash credit of Rs. 50,000 to all the eligible *Sakhi Mandals* (SHGs) in the Gujarat. This initiative led to sponsorship of 1.7 lakh applications from 2.5 lakh eligible SHGs by various banks. A significant amount of Rs 1100 crore with an average amount of Rs. 75,000 is being provided to each *Sakhi Mandal* as credit (NABARD report, 2009–2010; PricewaterhouseCoopers 2011).

The SHG-driven microfinance sector has thrived in the last few years. In addition, state government encouraged these institutions; many NGOs are actively involved in the formation and development of SHGs. Although the general focus of each intervention differs, development of microfinance sector appears to be a mutual theme in many schemes recently introduced.

Furthermore, the government and other public sector institutions like NABARD and NGOs, including few nationally and internationally acknowledged ones like Self-Employed Women's Association, Aga Khan Rural Support Programme, Sadguru Foundation and much more, have assisted in SHG development. Earthquake (2001) in Kutch and neighbouring districts motivated NGOs to work in these tectonic regions that furthered the financial inclusion process. Rural Development Department (Government of Gujarat) alone supported more than 100,000 SHGs by linking them to financial institutions. Various forms of intervention have led to pioneering of various kinds of microfinance model based on diverse developmental processes across Gujarat.

Microfinance-Led Functional Models

SHG-Bank Linkages are developed in Gujarat to cater needs of a vast rural network. It mainly prescribes informal SHGs to be credit linked with the formal financial institutions. The SHG-Bank Linkage initiative has emerged as a dominant model for borrowers. RBI advised commercial banks to consider lending to SHGs as part of rural credit operations, linking SHGs to banking sector mutually beneficial. The programme uses SHGs as an intermediation between banks and rural poor and reduces transaction costs for banks as well as rural clients. SHG member could scale up their operations with more financing from credit services. Development of several forms of the microfinance model reflects on the objective of flexibility, creating a sense of independence and inculcating the habit of saving and borrowing as per the requirement (Puhazhendhi and Badatya 2002). Due to widespread of rural bank network, SHG-Bank Linkage model is a feasible instrument for the creation of outreach-based outcome. The ever-spreading microfinance sector has led to the development of several approaches in processes of financial inclusion. Several forms of financial assistance are being provided to SHGs based on following methodologies.

Bank-SHG Members This form of approach 'Bank-SHG Member' is controlled by the bank and itself acts as Self-

Table 6 Loan outstanding in Gujarat (amount in Rs. lakh)

Agency	2009–2010		2010–2011		2011–2012		2012–2013	
	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount
Commercial banks	57,406	10,699.5	62,830	12,317.9	56,164	13,254.3	51,525	15,861.2
Regional rural banks	8582	2036.2	8806	2115.6	13,444	3864.3	18,501	4876.9
Cooperative banks	3298	1426.1	2904	1110.6	2887	514.6	2645	1300.5
Total	69,286	14,162.8	74,540	15,544.2	72,495	17,633.2	72,671	22,038.63

Source: computed on the basis of NABARD annual report (various years)

Help Group Promoting Institution (SHPI), providing the financial services directly to SHGs. Bank also monitors the economic progress of SHG through monthly/quarterly group meetings and periodical group rating process. The credit provided by the bank focuses on commercial activities among the SHGs and/or its members; the later earning is being deposited to the bank as payback leading to greater loan (Fig. 1).

NGO/DRDA-SHG Members This model talks about the facilitator role of agencies like government, NGOs or other community-based organizations in the formation and development of these groups. This form of microfinance model is generally developed and dominated by NGOs' perspective. This happens to be the most popular form of microfinance intervention for banks: only facilitating opening of saving accounts for direct credit transaction to SHGs, while NGOs acted as facilitators under a certain government scheme.

Practitioners have widely accepted this approach partly due to the involvement of government agencies like the District Rural Development Agency, District Women Development Agency and some of the centrally sponsored social sector schemes engaged by NABARD (Fig. 2).

Bank-NGO-MFI-SHG Members This form of interventions is largely NGO led; it acts as both facilitators and microfinance intermediary. First, they promote groups, nurture and train and then approach banks for the credit facility. Sixteen percent of the SHGs in Gujarat were credit linked through this model (Fig. 3).

NGOs promote the formation of SHG-based federations and then facilitated them to assume the role of MFIs. This model is expected to gain wider recognition with smaller banks venturing into large-scale financing of SHGs (Bansal 2003). Additionally, lack of government intervention is also an incentive for NGOs, as better management of loan can be realized. It also facilitates the introduction of innovative approaches to ever improving direction.

SEWA Model The Self-Employed Women's Association of India (SEWA) was founded with the objective of empowering women in India; Gujarat is also one of the prominent operational areas. The total membership in SEWA for Gujarat is 919,712 (year 2012). They are also involved in the microfinance sector as an important player in Gujarat (Fig. 4).

It promotes women-based group formation by providing training, credit facility and requisite input material for commercial activities. Bank also provides credit and grant to

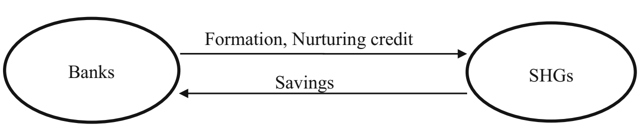

Fig. 1 Pioneer model on Bank-SHG linkage. Source: conceptualize by the authors

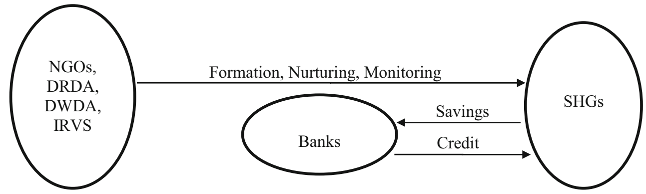

Fig. 2 Model on facilitating agencies-Bank-SHG linkage. Source: conceptualize by the authors

SEWA to work as a microfinance facilitator in the state. SEWA membership (SHGs) in urban Gujarat is 66% and rural membership is 34%. It is evident that SEWA is playing a significant role in women empowerment with its microfinance interventions.

The significance of these interventions is measured in the following section based on empirical field-level data. Results also provide a better understanding of the impact that microfinance intervention is having.

Data Tabulation, Analysis and Interpretation

A preliminary investigation was carried out to collect data from SHGs in the state (Gujarat). Data was collected from sample number SHGs to determine the relationship between poverty (dependent variable) and microfinance (independent variable). For effective coverage, the purposeful sampling technique was used to select an adequate number of sample (225 members).

A major tool for data collection was the semi-structured questionnaire. The terms and statements embodied in the questionnaire were related to the objectives of the study. The questionnaire had two sections: section A contained background information of the respondents, while section B tried to measure the perception of respondent on the effectiveness of microfinance (on income generation leading to poverty reduction) in Gujarat, rating 'strongly satisfied 4', 'satisfied 3', 'unsatisfied 2' and 'strongly unsatisfied 1'.

A reliability test was carried out on respondents in microfinance institutions (not part of the study), using test-retest methods. Scores obtained from administration of questionnaire were corrected, using 'Pearson product moment correlation coefficient' reflected as 0.86. Out of the 225 copies that the questionnaire administered, 189 were returned from

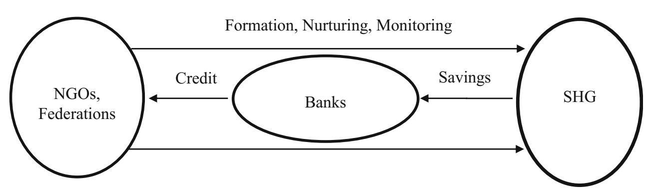

Fig. 3 Model on bank-NGO-MFI-SHG linkage. Source: conceptualize by the authors

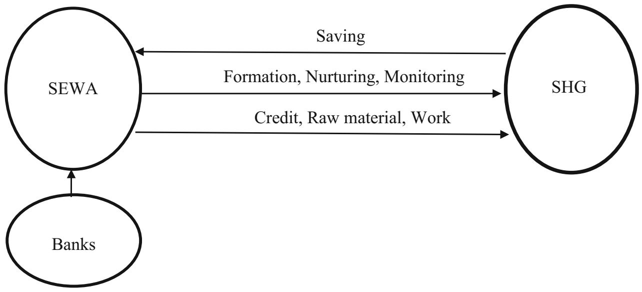

Fig. 4 Model on bank-NGO-MFI-SHG linkage. Source: conceptualize by the authors

the respondent (microfinance users); a further empirical study was built on it.

Data was analysed, summarized and interpreted with the aid of statistical tools. Chi-square was used to measure prevailing discrepancies between the observed and expected frequencies. 'Regression analysis' and 'analysis of variance' were computed to assess significance and level of association among the variables. The pattern and relationship among data were also identified.

Variables of Study and Measurement

Data on socio-economic profile indicates an argumentative trend; hence, it necessitates that the study should include socio-economic information of the respondents to determine factors. Socio-economic characteristics such as age, education, marital status, type of family, family size, occupation, religion and caste of the sample respondents leading to questions on participation level (membership), poverty alleviation (income), livelihood impact (involvement in economic activity) and overall sustainability (nature of livelihood) are captured. Empirical data has also covered aspects such as increase in income as a SHG member, participation in family-based decisions, the rise in confidence, nature of involvement socially and politically, engagement in commercial activities and behavioural dynamics of family and society towards SHG members.

To understand the impact of microfinance on SHG's members, variables considered are income, assets, employment, consumption and savings. The annual income of the respondent was worked out by considering income from commercial activities and other subsidiary occupations per year. It refers to the number of day that employment generated sources such as crop enterprises, dairy, goat farming, poultry, group-based activities and self-employment.

Table 7 X^2 summary

Variables	N	1	X^2	P value
Participation in microfinance	189	1	32.179	<0.05
Non-adoption of microfinance institutions	27			

Source: based on field survey, 2014

Table 8 Simple regression for poverty measurement

Model	R	R^2	Adjusted R^2	Std error of the estimate
1	.838	.73	.57	147.8471

Source: based on field survey, 2014. Prediction: constant microfinance institution

Interpretation of Results

The chi-squared test allows reflection on the statistical significance of differences in a classification system or the relationship between two classification systems.

Frequency in Table 7 shows the quantity of respondent in distinct categories as presented under 'N' column. In this study, 'adoption' and 'non-adoption' of the microfinance institution's as a participant reveal a significant difference between those who participated in microfinance programme and who did not stand at $X^2 = 32.171$ with 1 degree of freedom and 0.05 significance level. It says that most people participated in microfinance institutions as SHG member (84%) and non-adoption is only 16%.

For poverty measurement, regression analysis is used to regress the independent variable against the dependent variable. The model summary in Table 8 provides information about regression analysis. It reflects on the high level of correlation between actual observed independent and predicted dependent variables (i.e. predicted by the regression equation). Additionally, 'standard error of estimate' indicates entrepreneurial productivity deviation from predicted regression line by a score of 147.8471. Studies observe that variations in poverty alleviation among members could be largely due to the emergence of microfinance-led activities.

The implicit hypothesis of 'no significant effect of microfinance institutions, poverty alleviation' can be rejected as value $p < .05$ is highly significant (Table 9). This implies that there is a positive impact of microfinance institution-led activities on poverty alleviation.

Table 9 Analysis of variance for poverty alleviation

Model	Variations	Sum of square	df	Mean square	F	Significance
	Regression	760	1	759	26.39	0.05
	Residual	1939	58	41		
	Total	2699	59			

Source: based on field survey, 2014. Prediction: constant microfinance institution activities

Table 10 Model summary of simple regression for sustainable livelihood development

Model	R	R^2	Adjusted R^2	Std. error of the estimate
1	.559	.441	.379	4.1837

Source: based on field survey, 2014. Prediction: constant microfinance institution activities

For a better understanding on sustainable livelihood, simple regression analysis was used to regress the independent variable against the dependent variable (Table 10).

The model summary in Table 10 provides useful information about the regression. First, 'simple R' reflects on the likely sustainability of microfinance-based livelihood. Additionally, standard error of estimate indicates deviation from predicted regression line by a score of 4.1837.

Table 11 reflects on proportion (percentage) of (sample) variation in dependent variable attributed due to the independent variable(s), suggesting that 20% of variations in sustainable development could be accounted by microfinance institutions. The 'adjusted R^2' refers to the best estimate of the population from which the sample is drawn.

To assess a significant effect of microfinance institution interventions in predicting sustainable development, regression provides the following results as F value of 20.19 with a high significance value of $p < .05$. This implies that there is a significant effect of microfinance institutions on the development of sustainable livelihood.

Further Discussion

In addition to findings discussed in the previous section, this part of paper tries to assess results based on questionnaire canvassed, in-depth interviews and discussions held with the SHG members, field workers and local non-government organizations.

Microfinance programme is found to be working towards the formation of SHGs and facilitating financial assistance through banking, government, non-government and project-based activities to the poor (women in general). For individual members, the most attractive aspect of SHGs is an opportunity to save and avail easy loan through banks. It helps them in meeting their needs and further investing in livelihood development. Field data also suggests that SHG movement has created an atmosphere of regular interaction, socialization, exposure, etc. among/for members and raised confidence level, evident in the gesture such as 'being outgoing, contributing, making their presence felt in local political and social sphere and participating in decision-making process in the family'. SHG members among themselves have inculcated social consciousness to be a requisite change in the society. It was observed that women in the rural area take SHG membership to save themselves from exploitation and high interest rate on loan by moneylenders, but that is not the case for SHG members in semi-urban or urban locality; being part of SHGs in urban set-up is more about social status than social mitigation and empowerment.

Financial difficulties (loan payback) led by peer pressure is recognized as a main reason for dropout from SHGs. Making regular deposits in the common saving account is problematic for some and forces them to drop out; in the case of non-poor members, group dynamics (politics) in SHGs is a major issue. Efficiency and profitability are another major concerns for these groups; to sustain a group, it needs to earn regularly from economic activities, but it is a rare phenomenon. Access to credit has enabled women to undertake commercial activities leading to additional family income. It was observed that earning has been largely spent on better nutrition for children and health care of family. It can be said that socio-economic status of households has improved due to improvement in access to credit, since SHGs are linked with banks and other non-banking financial institutions.

Secondary data reflects on saving, disbursement and outstanding loan at national as well as for the state of Gujarat. Evidence suggests that the number of SHGs has increased gradually, financial allocation to SHGs has increased, but outstanding loan remains to be a major concern. Microfinance in India is mainly catalysed by government agencies involved in large-scale operation via public sector banks (commercial, co-operative and rural banks). Gujarat being one of the few economically develop states in India, shown growth in microfinance sector especially in tribal areas, is the reflection of initiatives taken by the government and non-government agencies.

Table 11 Summary of analysis of variance for sustainable livelihood development

Model	Variation	Sum of square	df	Mean	F	Significance
1	Regression	1731.16	01	1731.16	20.19	0.02
	Residual	2912	57	46		
	Total	4643.16	68			

Source: based on field survey, 2014. Prediction: constant microfinance institution activities

Policy Implications

Considering the concerns related to the microfinance sector discussed in the foregoing sections, the following are the key policy implications for contemporary time.

The microfinance sector is largely found to be unorganized and unregulated. Therefore, it is imperative to have a statute with the power of regulation and supervision of the microfinance sector. The statute should not be oriented only on the development of the sector, but should prescribe norms for the operation regarding registration, fixing of interest rates, methods of recovery and the penalty for failure in meeting the norms. The strict regulations would help in weeding out a lot of unorganized entities over a period and shall create a database in determining policy framework for this sector.

The unique experiment of SHG-Bank Linkage Programme, where SHGs are providing a loan, nurtured and promoted either by banks or other government or non-government organizations directly or indirectly, has shown considerable impact. Currant rural scenario suggests that banks must be encouraged to continue with microfinance-related activities aggressively with a balanced regional approach. There is a necessity to recognize SHG-Bank Linkages as part of priority sector credit policy. This would help in snowballing the scale and impact of microfinance.

Contentious cases of high interest rate suggest that there is a need of prescribing interest rate ceiling under new legislation for effective governing. Capping of margins may help in decreasing the final rate of interest for time being and would provide flexibility to banks and MFIs to increase their rates, as and when the general interest rate at national-level increases. However, given the tendency to increase rates when general interest rate level goes up, but not to cut when it goes down, margin capping may not be an effective solution eventually.

There must be an active people-centric and growth-led poverty alleviation programme—strategy capturing poor's aspirations, dynamism and involvement. It is foreseen that SHGs can be an important instrument for the realization of such objectives. But there is a need for structural orientation of these groups to suit necessities of new business.

Microfinance movement ought to be seen from a long-term perspective, emphasizing on deliberate policy implications in favour of assuring the development of technology-backed, market-oriented product and human capital. Hence, there is a need of an innovative and diversified microfinance sector, which makes an actual contribution.

Conclusion

It is evident that government and non-government organizations played their part in microfinance movement and created financial resources for the poor (especially women). These interventions are based on credit-driven development by linking the SHGs to economic activities, schemes and projects. The SHG-linked outstanding loan is on a higher side but declining. There are concerns for lack of standard, overlapping of the loan, adjustment of new loan against old and absence of technology interventions. Empirical data from the field does suggest that microfinance movement in Gujarat has led to the overall socio-economic development of families via women-led economic interventions. It has been observed that microfinance has a positive impact on poverty alleviation (increase in income) and livelihood development. However, the microfinance model needs to follow credit lending process with the objective of reasonable profit or no profit to be effective and cater needs of the poor.

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