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Abstract

Microcredit is essentially utilised as the source of empowerment among the poor women in both rural and urban areas of the Indian states. Based on a panel of the Indian states for the period 2007 to 2014, our study examines the impact of women empowerment via the number of women Self Help Groups and women employment opportunities. Our empirical evidence finds that both are complementary to each other. Furthermore, we notice that changes in percapita income and poverty rate influence the scope for women employment and outreach of women SHGs across the Indian states. Factors like increasing access to bank loans and female literacy also help improve the women empowerment drive. The implications of the findings are discussed in the paper.

Key words: *Microfinance, Self-Help Group, Women Empowerment, India*

JEL Codes: *G21, C23, J16*

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INTRODUCTION

Funding for micro-finance has been increasing over the years for promoting more small scale and tiny industries globally. However, access to financing is more unequal across countries. Further, access of women to the microfinance sphere is quite less across the economies. To promote gender equality along with the entrepreneurial spirit, it is inevitable to finance women for various small and local start-ups. This optimism about implicit women empowerment through providing fiancé creates the gateway for women empowerment, creation of more women SHGs, poverty eradication and various smaller employment opportunities. Though empowerment aspect is widely discussed in development context, still the impact of microfinance in forms of women empowerment is discussed very less in case of developing economies in particular. Weber and Ahmed (2014) find positive association between increasing access to women finance by MFIs and women empowerment in Pakistan. MFIs in general have created positive aspect for women empowerment through major three paradigms- financial self-sustainability paradigm, poverty alleviation paradigm and feminist empowerment paradigm (Mayoux, 2001) and simultaneously led to the increased social performance (Marr and Awaworyi, 2012). Kabeer (2005) examines the empirical evidence on the impact of microfinance w.r.t poverty reduction and poor women empowerment and finds that access to financial services in fact leads to the women empowerment across South Asia.

Microfinance is considered as the effective channel for women empowerment in terms of financing of women in various small scale initiatives. Microfinance loans are mainly meant to empower women to start with new initiatives to gain control over their destinies (Paxton, 1995; Woodworth, 2000). Espallier *et. al.* (2015) uses a global data set of 350 MFIs over 70 countries to study the trend of women empowerment and finds that higher percentage of female clients in MFIs

is associated with lower portfolio risk. Ngo and Wahraj (2012) examine the relation between MFI and gender empowerment and show that access to loans for women better improve the access to credit among the poorer sections. Analysing the cases of Ethiopian MFIs, Haile *et. al.* (2012) shows that MFI programme may enable women to generate extra income, improve their asset base and decimate the income inequality.

Rural Microfinancing occupy key place in the women empowerment in terms of poverty alleviation, reduction of inequality, providing financial services and improving the lives of the vulnerable sections of the society. MFI also improves women societal status in numerous ways through multiple dimensions: economic, socio-cultural, familial, legal, political and psychological (Malhotra, Schuler and Boender, 2002).[1]

As far as the accessibility of microfinance institution is concerned, it still plays a modest role in India. At the all-India level, less than 5 percent of poor rural households have access to microfinance but significant variation exists across Indian States. The Southern States, in particular, account for almost 75 percent of funds flowing under microfinance program. By far the most successful modelof microfinance in India, in terms of outreach is SHG-Bank Linkage Program (SBLP), with other models, such as the 'Grameen type', independent microfinance institution, lagging behind (Fisher and Sriram, 2002).

Among the poor in rural India, women are often considered as the oppressed human being in their society. Confining women to the four corners of houses, engaging them in household jobs and looking after the families often go against the ethos of women empowerment in the present context, which is moreover visible in the Indian society. To make them self-reliant, self-employed, smaller financial initiatives come though the institutions like MFI, where big formal financial institutions show

[1] See "Women's empowerment and Microfinance" by Vani Kulkarni, IFAD Working Paper-13, P-11.

reluctance to extend credit. Through MFI, women not only can create small businesses, rather they can serve as the helping hand to their family's financial base. Sen's (1990) focus on the women empowerment implies that person's capability must be based on the certainly universally valued functioning, which relate to the basic fundamentals of survival (*Source- Vani Kulkarni, 2011, IFAD Occasional Paper No-13*). Women in rural areas of India face discrimination in family and society as they are deprived of the property, education and different aspects of life. In order to empower them financially and socially, MFIs play vital roles in providing credit base to women. Shri Mahila Griha Udyog Lijjat Papad is believed to be the first organization, which acts as the catalyst for poor urban women across the Indian states in 1960s. ICICI Bank has set up various rural commercial opportunities for the rural poor.[2] However, the concentration of SBLP has been unevenly found. The Southern states like Andhra, T.N, Karnataka and Kerala dominate SBLP experiencing greater improvement in women empowerment. These states account for 54 percent of SHGs and 75 percent of bank credit even though they constitute only 20 percent of total population (Sinha *et. al.,* 2009).

The focus on women empowerment in context of microfinance brings to the light of gender development and equality in the public policy circle (DFID, 2006, P-1). The predominant feature of the gender empowerment via MFI is to empower women as the individuals and putting these services to the families and communities as a whole. The experience of social empowerment of women via MFIs enhances the material means and strengthens social relationships (Kabeer and Haq, 2010). Further, higher concentration of MFI financing towards poor women in both rural and urban areas help revive their social statures in the family, community and on their political empowerment and rights (Cheston and Kuhn, 2002).

[2] See "justiceforwomenindia.wordpress.com/2013/03/14/role-of-microfinance-in-women-empowerment-in-rural-india/.

On the light of large number of literature in Microfinance and economic development, very few studies have focused upon the women empowerment in the Indian context. For instance, the relation between microfinance and empowerment issues is largely confined to the field surveys and experiments (A.K. Pokhriyal, 2014; Pati, 2016; Kapila, 2016). This paper contributes by arguing that women empowerment takes place in forms of larger concentration of women SHGs in a particular region. Since women empowerment is unobservable, it is measured in our study through certain key variables like female population, female literacy rate, female work participation rate and number of women SHGs. The empirical analysis here is based on data collected across the Indian states over the period 2007 to 2014.

The results are especially robust thus indicating that female literacy rate, female work force participation rate, bank loans, poverty rate are positively and significantly influencing the number of women SHGs in the states. Our results further justify that earlier savings by the households often helps channelize the initiatives of women SHGs. However, states experiencing higher agriculture growth have faced the declining prospects of women SHGs during this period.

The section following this introduction provides brief overview of literature on microfinance and women empowerment. The section after that presents the empirical framework, data and descriptive statistics. Subsequently, we present and discuss the empirical findings. The final section of the paper provides conclusion of the study.

BRIEF LITERATURE REVIEW

There is indeed a large body of literature, which shows that facilitating financing ability among women result in greater gender empowerment in long run. Empowerment can be infused via MFIs, formation of SHGs and other allied channels. It is true that increasing the household resources to

the female hands strengthen the impact of family welfare (Lundberg *et. al.,* 1997; Duflo, 2003). Using a global dataset of 350 MFIs, Espallier *et. al.* (2011) argue that concentration of higher percentage of female clients in MFIs is associated with low portfolio default and fewer write-offs. Table 1 provides a brief account of earlier studies related to Microfinance institutions and women empowerment.

Table 1: Brief Account of Literature on Women Empowerment and MFIs

Authors	Subject	Context	Results
Ganle *et. al.,* 2015	MFI and gender empowerment	Ghana	Mixed Relation in terms of both better off and worse off
Hashemi *et. al.* (1996)	Rural Credit and Women empowerment	Bangladesh	Positive relation through MFI credit
Haile *et. al.* (2012)	MFI, Institutions and gender empowerment	Ethiopia	Helps in reducing inequality and improving asset base
Aggarwal *et. al.* (2015)	MFI, Social trust and women empowerment	International	MFIs favour women more in countries in low trust economies.
Storm *et. al.* (2014)	Female leadership and MFI performance	329 MFIs, 73 countries	Female managed MFIs have better performance.
Garikipati (2008)	MFI and women empowerment	India	Results in women disempowerment because of diversion of resources for household's assets and income
Ali and Hatta (2012)	MFI and women empowerment	Bangladesh	No relation between women empowerment and MFI

Notes: Author's own compilation.

EMPIRICAL STRATEGY

Following earlier empirical studies, female SHG is modelled as the function of female literacy rate, female population and female work force participation. The final empirical specification includes the existing explanatory variables along with set of control variables.

$$WSHG_{it} = f(FPOP_{it}, FLIT_{it}, FWPR_{it}) \quad (1)$$

The above function can be represented in forms of linear equation with various control variables. The specification reads as follows

$$WSHG_{it} = \alpha FPOP_{it} + \beta FLIT_{it} + \gamma FWPR_{it} + \delta D_{it} + \varepsilon_i + \varepsilon_t + \varepsilon_{it} \quad (2)$$

Where $WSHG_{it}$ is the number of women SHG for state i over the year t. $FPOP_{it}$ is the total female population of state i over the year t. α is the parameter associated to female population. $FLIT_{it}$ is the total female literacy of state *i* over year *t*. β is the parameter associated with female literacy rate. $FWPR_{it}$ is the female work force participation rate of state *i* over year *t*. γ is the parameter associated with the female work force participation rate of state *i* over the year *t*. δ is the parameter associated with the control variable D_{it}.

$$D_{it} = [BLOAN, POV, SV, GSDP, PC]_{it} \quad (3)$$

By replacing equation (3) in equation (2), we obtain our final empirical estimation model.

$$WSHG_{it} = \alpha FPOP_{it} + \beta FLIT_{it} + \gamma FWPR_{it} + \delta_1 BLOAN_{it} + \delta_2 POV_{it} + \delta_3 SV_{it} + \delta_4 GSDP_{it} + \delta_5 PC_{it} + \varepsilon_i + \varepsilon_t + \varepsilon_{it} \quad (4)$$

Where $\delta_{1,\ldots\ldots,}\ \delta_5$ denote the set of parameters representing the set of control variables like bank loan, poverty rate, savings rate, agriculture growth rate and percapita income respectively. Table 2 shows the nature of variables considered for the study as well as definition of the same.

Table 2: Definition and Construction of Variables for the Year (2007-2014)

Variables	Definition	Construction	Source	Expected Sign with WSHG	Expected Sign with WFPR
Women Self Help Group (WSHG)	Number of SHGs primarily headed by women	In terms of absolute numbers annually	NABARD's Annual Report-Status of Microfinance		Positive
Women labor participation rate (WFPR)	Share of female in total labor force in percent	As a percentage of total labor employment annually	NABARD's Annual Report-Status of Microfinance	Positive	
Bank Loan (BL)	Number of bank loans disbursed	Total bank loans in numbers annually	NABARD's Annual Report-Status of Microfinance	Positive	Positive
Poverty Rate (POV)	People living below poverty line	In terms of percentage annually	Planning Commission (2014)	Negative	Negative
Female Population (FPOP)	Total number of female population	In terms of numbers per year	Census of India (2001, 2011)	Positive	Positive
Saving Rate (SV)	Net savings of people	Total savings in volumes annually	Census of India (2001, 2011)	Positive	Positive
Female Literacy (FL)	Percentage of female being literate	In percentage forms	Census of India (2001, 2011)	Positive	Positive
GSDP (Agricultural Growth)	Agriculture growth of the state	In terms of volumes (rupees)	Central Statistical Organization, MOSPI	Positive	Positive
Percapita Income (PC)	Total income/total population of the state	In terms of volumes (rupees)	Central Statistical Organization, MOSPI	Positive	Positive

Notes: Author's own compilation.

Table 3: Descriptive Statistics of Variables

Variable	Obs	Mean	S.D	Min	Max
WSHG	160	11.763	1.561	6.669	16.348
SAV	160	3.993	0.713	1.530	5.492
GSDP	160	7.206	0.348	6.490	7.976
PC	160	4.566	0.203	3.985	4.899
BLOANS	160	4.140	0.818	1.858	6.086
FLIT	160	1.816	0.066	1.644	1.974
FWPR	160	1.402	0.138	1.08	1.67
POV	160	1.425	0.258	0.753	1.999
FPOP	160	7.327	0.364	6.513	8.010

Notes: Author's own compilation. All variables are converted to natural log.

EMPIRICAL RESULTS AND DISCUSSION

Baseline Findings

Table 3 shows summary statistics of the variables used in the study. The variables are converted into logarithm form and the baseline results are displayed in the Table 4 and 5. We estimate our empirical models in two different specifications with Women SHG being the function of women labor force participation and other control variables. Our results indicate that women work force participation is found to be positively and significantly associated with women SHG. The estimated coefficient of women work force participation is found to be positively and significantly associated with women SHG at the conventional level of significance (see columns I, II).Other control variable like savings rate is found to be positively and significantly influencing the women SHG. It implies that increase in the household net savings across states encourages various small start-ups by women via MFIs. However, we obtain the contradictory findings in case of agriculture growth and women SHG association. It strongly supports the fact that agriculture growth is primarily male dominated work, by pushing down the employment avenues of women (see columns I, II and III).

Table 4: Baseline Findings, Dependent Variable, WSHG

WSHG	Model I	Model II	Model III
WSHG(-1)			0.378*
			(6.08)
SAV	0.594*	0.364*	0.284*
	(4.88)	(3.10)	(2.08)
GSDP	-16.473*	-13.721	-5.806
	(-3.01)	(-0.24)	(-1.07)
PC	16.703*	16.692	6.131
	(2.98)	(0.30)	(1.10)
BLOANS	0.807*	0.574*	0.650*
	(6.65)	(3.29)	(5.40)
FLIT	2.814*	0.596	1.992*
	(2.72)	(0.22)	(1.98)
FWPR	0.665*	2.321**	0.301
	(2.42)	(1.78)	(1.14)
POV	0.766*	0.264	0.691*
	(4.45)	(0.84)	(4.26)
FPOP	17.520*	21.932	6.376
	(3.14)	(0.36)	(1.14)
Constant	-87.032*	-136.09	-34.019
	(-3.38)	(-0.45)	(-1.31)
Time Effect	No	Yes	No
State Effect	No	Yes	No
R squared	0.942	0.968	0.955
F test	307.77*	111.95*	306.41*

Notes: Author's own compilation. All variables are converted into natural logarithm. T statistics are reported in parenthesis. (*), (**) and (***) denote the 1 percent, 5 percent and 10 percent levels of significance respectively.

Furthermore, we find that increase in percapita income positively influences women SHG initiatives (see column I). Once we control both time and state effects, we find no significant association between percapita income and women SHG initiative (see column II). Our empirical results further boosts up with the positive and significant association between bank loans in volumes and number of women SHG initiatives (see columns I, II and III). In sum, it shows that states with higher volume of bank loan find the higher concentration of women

SHGs. Furthermore, our empirical analysis shows that coefficient of female literacy rate is found to be positive and significant with women SHG (see columns I and III). Coefficient of female literacy tends to vary from 0.596 to 2.992 with every 1 percent change in women SHG. More importantly, we find positive and insignificant relation between female literacy rate and women SHG (see column II). In addition to this, the relation between female work force participation and women SHG is found to be positively and significantly varying with women SHG, indicating that regions with more female workers experience more inflows of women SHG groups in order to flow more credit in the systems. One exception in this empirical analysis is observed in case of positive and insignificant relation between female workforce participation and women SHG (see column III). Further, we obtain positive and significant relation between poverty and women SHG (see columns I and III). It implies that regions with more poverty like conditions tend to focus more on the self-sufficiency programmes through women SHGs. However, our empirical analysis shows positive and insignificant relation between female population and women SHGs, except in case of column I. The result indicates positive and insignificant relation between female population and women SHG, once we add time dummies and state effects as well as the addition of lagged explained variables (see columns II and III). This implies that female population exclusively has not influenced women SHGs due to various factors like prevalence of patriarchal system, reluctances on family parts, conservative societies at rural areas and lack of consciousness of being self-reliant.

Table 5: Baseline Findings, Dependent Variable, FW*PR*

FWPR	Model I	Model II	Model III
FWPR(-1)			1.052* (171.54)
SAV	-0.052 (-1.40)	-0.001 (-0.16)	-0.001 (-0.65)
GSDP	0.801 (0.49)	5.187 (1.37)	0.134 (1.14)
PC	-0.515 (-0.31)	-4.875 (-1.29)	-0.179 (-1.49)
BLOANS	0.103* (2.65)	-0.009 (-0.77)	0.001 (0.56)
FLIT	-1.326* (-4.71)	0.597* (3.40)	0.150* (6.59)
WSHG	0.059* (2.42)	0.010** (1.78)	-0.001 (-1.10)
POV	0.006 (0.13)	0.035** (1.69)	-0.007* (-2.39)
FPOP	-1.050 (-0.63)	-3.002* (-2.20)	-0.123 (-1.02)
Constant	7.207 (0.93)	52.423* (2.60)	0.439 (0.78)
Time Effect	No	Yes	No
State Effect	No	Yes	No
	160	160	140
R squared	0.379	0.981	0.997
F test	11.56*	193.59*	5285.8*

Notes: Author's own compilation. All variables are converted into natural logarithm. T statistics are reported in parenthesis. (*), (**) and (***) denote the 1 percent, 5 percent and 10 percent levels of significance respectively.

Robustness Checks

As a part of robustness check, we introduce IV estimation in case of women SHG being the function of women work force participation and other control variables. Our empirical results presented in Table 6 and 7 show that coefficient of bank loans is positive and significant with that of women SHG at the conventional level of significance. However, we find

insignificant association between female work participation and women SHG, while controlling bank loans for agriculture growth and percapita income. Furthermore, we find that coefficients of female population and female literacy rate are found to be positive and significant to that of women SHG, depicting that states with more literate women and more women population tend to venture into the smaller investment channels via SHG institutions (see column I).Regions with higher poverty rate also feel the presence of greater number of SHGs. It depicts the fact that poorer states in the country comparatively attract more women SHG initiatives, making women more self-employed. In the 2nd Model, we observe that coefficient of female work force participation is found to be positively and significantly associated with women SHG, once we instrument female labor force participation for bank loans and percapita income.

Table 6: IV Estimates Using WSHG being the Explained Variable

WSHG	Model I	Model II	Model III
BLOAN			
POV	0.948* (6.09)	0.563** (1.71)	0.169 (0.51)
FPOP	0.609* (3.81)	4.033* (5.25)	7.395 (0.75)
SAV	0.191 (0.98)	0.716* (3.14)	0.650* (2.92)
FLIT	4.086* (5.99)	11.797* (5.70)	-0.435 (-0.15)
FWPR	0.239 (0.76)		
GSDP		-2.028* (-3.42)	
PC			
Instrument	1.434* (7.35)	6.892* (5.50)	-0.839 (-0.81)
Constant	-8.522* (-4.19)	-37.926* (-5.97)	-44.096 (-0.59)
Year Fixed Effect	No	No	Yes
State Fixed Effect	No	No	Yes
No of observations	160	160	160
No of States	20	20	20
R squared	0.931	0.744	0.951
Durbin endogeneity test	8.185*	86.527*	2.671***
Sargan overidentification test	0.985	1.495	0.256
F test from first stage test	33.714*	18.349*	2.110***

Notes: Author's own compilation. Z statistics are reported in parenthesis.

In Model I, log of bank loan is instrumented for log of GSDP and log of percapita income. In Model II, log of female work participation is instrumented for both log of bank loans and log of percapita income. In Model III, log of bank loan is instrumented for both of log of GSDP and log of percapita income by controlling both time and year effect.

However, we prefer not to instrument model II by controlling both time and state effects due to the acceptance of null hypothesis of presence of weak instruments in the model. *, ** and *** represent 1 percent, 5 percent and 10 percent levels of significance respectively.

Other estimated coefficients like poverty rate, female population and female literacy rate are found to exhibit positive sign with that of women SHG (see column II). However when we introduce both time and state effects, we find that except savings rate, rest of the estimated coefficients are found to be having insignificant relation to that of women SHG (see column III).

Table 7: IV Estimates Using FWPR being the Explained Variable

FWPR	**Model I**	**Model II**	**Model III**	**Model IV**
BLOAN				
POV	-0.158* (-2.26)	-0.076 (-1.51)	0.024 (0.11)	0.043* (2.18)
FPOP	-0.294* (-5.66)	-0.576* (-6.27)	-3.360* (-5.84)	-3.866* (-7.44)
SAV	0.044 (0.77)	-0.092** (-1.92)	0.013 (1.23)	0.005 (0.44)
FLIT	-1.235* (-4.11)	-1.679* (-6.40)	0.466* (2.49)	0.624* (3.84)
WSHG	0.147* (7.10)		0.024* (2.55)	
GSDP		0.289* (3.60)		0.375* (2.98)
PC				
Instrument	-0.153 (-1.27)	0.138* (5.41)	-0.105** (-1.78)	-0.004 (-0.23)
Constant	4.760* (7.10)	5.440* (9.52)	26.432* (6.24)	27.144* (7.64)
Year Fixed Effect	No	No	Yes	Yes
State Fixed Effect	No	No	Yes	Yes
No of observations	160	160	160	160
No of States	20	20	20	20
R squared	0.165	0.321	0.971	0.980
Durbin endogeneity test	4.930*	5.849*	3.577*	0.608
Sargan overidentification test	7.115	1.448	4.045*	1.928
F test from first stage test	10.154*	64.348*	3.230*	5.198**

Notes: Author's own compilation. Z statistics are reported in parenthesis.

In Model I, log of bank loan is instrumented for log of GSDP and log of percapita income. In Model II, log of Women SHG is instrumented

for both log of bank loans and log of percapita income. In Model III, log of bank loan is instrumented for both of log of GSDP and log of percapita income by controlling both time and year effect. In Model IV, log of women SHG is instrumented for both of log of bank loan and log of percapita income by controlling both time and year effect. *, ** and *** represent 1 percent, 5 percent and 10 percent levels of significance respectively.

The above table presents the empirical result of IV-2SLS estimation stating the relation between female SHG and female work force participation rate. Column I presents the IV results in case of bank loans instrumented for bank loans and percapita income without taking into account both time and state effects. Column II presents the IV results in case of women SHG instrumented for both bank loans and percapita income. Column III and IV introduce both time and state effects in the models same as those of in columns I and II. In order to address the problem of endogeneity, we introduce IV specification in addition to our baseline findings. Column I shows that there exists insignificant association between log of bank loan and female work participation, while instrumenting bank loan for percapita income and agriculture growth. However, we obtain negative correlation between bank loan and female work participation rate in case of controlling both time and state effects. It states that bank loans do not have any formidable effect on female work force participation rate and leads to declining female work force participation across the states (see model III). However, our further empirical analysis finds a positive and significant association between women SHG and work force participation rate in case of without and with time and state fixed effects (see models I and III). Our further analysis shows that female literacy and female employment are inversely associated with each other. However, we find a positive and significant association between female literacy and female work force participation, once we control both time and state effects. Furthermore, we find that increase in women SHG concentration leads to

more female work participation rate. Both are found to be positive and statistically significant at the conventional level of significance (see models I and III). We also find that increase in agriculture growth has induced more female work force participation during this period, while introducing women SHG as an instrument for both bank loan and percapita income. This is evident from our empirical analysis in cases of both with and without time and country effects (see models II and IV). It implies that agriculture growth in states promotes both rural employments across genders. Our empirical results further examine the impact of bank loans on women work force participation, once bank loan is instrumented for GSDP and percapita income and find that no significant relation persists between these two (see column I). Further, we notice a positive and significant correlation between women SHG and women lobr force participation, once women SHG is instrumented for log of bank loans and percapita income. This depicts that women SHG once equipped with more refinancing options informs of bank loans, tend to disburse more credit among the women. It in turn results in more women workforce participation in various smaller initiatives (see column II). Additionally, we control both time effects and state effects in next two specifications. We notice that the coefficient of instrumental variable bank loan is found to be negatively and significantly varying with women force participation rate (see model III). Furthermore, we obtain insignificant relation between women SHG and women labor force participation rate (see model IV).

CONCLUSION

The article has aimed for incorporating the element of inclusiveness through role of women in Micro-finance institutions. Through our empirical findings, we state that women empowerment is key to the inclusive growth of an economy. For this, factors like women literacy rate, access to credit by women, female employment and female poverty rate must be taken care of seriously. Traditions of reciprocity and co-

operation among women can better be nurtured through these MFIs, which can not only provide them credit to build up their income sources, but also act as the instruments for educating, generating awareness and creating employment opportunities among women. In this context, our empirical findings analyse the degree of women empowerment from two major angles- one from women work force participation and number of women SHGs.

Several implications emerge out of this study. First, our empirical findings reveal that increase in number of women SHGs across the Indian states help improve the employment base and self-sufficiency among women. This implies that MFIs in India have been quite successful in granting more credit access to women. Second, our empirical results show that areas with higher female population have unfortunately experienced the declining women work force participation. it might happen due to the pressure of the family and prevalence of patriarchal society. Third, the important finding of our study in terms of household savings and percapita income reveal that states with higher growth experience surge in the number of women SHGs. Fourth, we observe from our empirical analysis that poverty has inadvertently impacted women employment prospects in some states, while poverty on the other side has helped increase the presence of more women SHGs across the states over this period.

By utilising our major findings, we feel that MFIs have the larger role to play in making capacity building among poor women in both rural and urban India and generating awareness through various social channels. The practise of joint loans, group loans among women members in MFIs must be practised, which could potentially reduce the default ratios and improve the small business initiatives among women groups. However, it would be quite ambitious to claim that MFI can alone address all the problems of women. It is also quite unrealistic to expect that women's access to microcredit could change their positions in the

male dominated patriarchal society like India. However, continuous access to credit, smooth functioning of women SHG, adequate availability of business opportunities and support from family could slowly improve the women societal positions, in which MFIs have the bigger role to play.

APPENDIX

Table A1: The Indian States Included for the Analysis

Total number of the Indian States included in analysis (20) over the year 2007-14	States in North, East and N-E India (14)	States in South and West of India (6)
Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Odisha, Punjab, Rajasthan, Tamil Nadu Uttar Pradesh, Uttarakhand, West Bengal	Assam, Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Madhya Pradesh, Odisha, Punjab, Uttar Pradesh, Uttarakhand, West Bengal	Gujarat, Karnataka, Kerala, Maharashtra, Rajasthan, Tamil Nadu

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