



# STUDY ON THE BORROWER'S PERCEPTION ON THE ROLE OF MICROFINANCE TOWARDS THEIR FINANCIAL DEVELOPMENT

Mr.N. Rajeshkumar<sup>1</sup>, Dr. R. Alamelumangai<sup>2</sup>

<sup>1</sup>Ph. D. Scholar, Department of Banking Management, Alagappa University, Karaikudi – 630 004

<sup>2</sup>Research Supervisor and Mentor, Professor, Department of Banking Management, Alagappa University, Karaikudi

Article DOI: <https://doi.org/10.36713/epra22551>

DOI No: 10.36713/epra22551

## ABSTRACT

Microfinance model becomes imperative in transforming the lives of poor households. Access to credit by low income or poor households plays an important role in improving their income level. Indian microfinance sector has witnessed phenomenal growth over past two decades that as on 30th September 2021, the number of MFIs has reached to 194 and it is operating in 29 states, 5 union territories and 591 districts in India. On an average, 3.52 crore households have availed the credit through MFIs up to 2021. Southern region has an average market share of 39% of overall MFI contribution. Microfinance facility is extended by the Small finance banks, NBFCs through SHGs and JLGs. Subsequent cycle of JLG loans enable the clients to maintain their businesses of such as purchasing inputs, securing the stocks, replacing or repairing the equipments. Timely access to follow up loans provides an experience of steady improvement in the economic and financial conditions. This study aims to analyse the expectation and experience of MFI clients in selected districts of Tamilnadu towards the impact of MFI loans in their financial improvement. The findings of the study highlights that the major expectations of MFI clients are increasing the loan amount and support for skill development and training program for self employment. Many studies acknowledged micro credit positively impacted the social and economic development. The findings of the study add to this evidence and it also highlights that amount of MFI loans and subsequent loan cycle have directly impacted the financial improvement of MFI clients.

**KEYWORDS** – Micro-credit, SHG, JLG, Poverty, Insurance and Financial Inclusion

## 1. INTRODUCTION

The more efficient financial support to middle and low income households specifically for women has been provided through the microfinance models through various financial institutions. Microfinance or Micro credit is a form of financial service that provides mainly savings, micro loans and insurance cover to poor and low income households. RBI defines microfinance as the “provision of thrift, credit and other financial services and products of very small amounts to the poor in rural, semi-urban or urban areas for enabling them to raise their income levels and improve living standards” (RBI 2000 p.1). The extensive approaches of implementing the microfinance model in India was Self Help Groups - Bank linkage program (SHG-BLG) and through promotion of nonprofit MFIs such as Society/Trust/Co-operatives & NBFC MFIs. The SHG-Bank Linkage Programme (SBLP) was initiated as an action research by the National Bank for Agriculture and Rural Development (NABARD) in 1989 and was subsequently crystallized into a pilot project in 1992 as SHGs have successfully leveraged about forty one billion US dollars loans from banks since 2013-2014. Advocacy with the RBI, digital financial services (DFS) and Indian Banks Association (IBA) and interventions at the field level have resulted in exemplary growth in the SHG-Bank linkage credit portfolio (Kumar et al 2020). An MFI namely ‘Spandana Sphoorty Financial Limited’ was initially started as Society in 1998 and within five years it became a NBFC MFI with global presence and operating in 10 states across India. Due to microfinance crisis in Andhra Pradesh, Reserve Bank of India in October 2010 set up a Sub-Committee of its Central Board of Directors to study the issues and concerns in the microfinance sector, under the Chairmanship of Shri Y H Malegam. This committee’s recommendation prescribed the small collateral free loans to borrowers belonging to low-income groups, fair practices in lending such as transparency in charges, ceilings on margins and interest rates, no prepayment penalty, flexible repayment schedules, non-coercive methods of recovery, and measures to contain multiple lending and over-indebtedness. Recommendations of this committee have created an ecosystem for the robust



growth of Commercial microfinance through NBFC MFI. As of March 2022, the aggregate credit of all NBFC MFIs stood at Rs.28.5 lakh crore which covers 28 states and 9 union territories (UTs). In terms of regional distribution, eastern & north-eastern regions of the country have the largest share at 37 per cent followed by south at 27 percent and west at 15 per cent (Rajeshwar Rao 2022). Loan disbursement of MFIs in the southern region has been increased to Rs.30,978 crore in 2021 in the last decade i.e between 2011 and 2021 the average amount of credit disbursed by MFIs in the Southern region stood at Rs.17,057 crore which is 42.5% of total loan amount lent by MFIs across all regions. This indicates that major portion of loan outstanding of MFIs is provided by the southern region as compared to all other regions. The present study is undertaken to analyse the perception on the Clients experience and expectations with MFIs in Tamilnadu.

## **2. REVIEW OF LITERATURE WAS UNDERTAKEN TO UNDERSTAND THE KEY DIMENSIONS OF THE IMPACT OF MFIS AND MAJOR EXPECTATIONS AMONG THE CLIENTS.**

### **2.1 Microfinance Impacts the Income Generation**

Microfinance has the capacity to increase self employment and create microenterprises in developed countries (Nogueira et al. 2020). As evidenced by an increased focus on commercialization, the most prominent explanation for this trade-off is that it is more costly for MFIs to provide financial services to economically marginalized people, making social outreach at the expense of a firm's financial performance (Hermes et al. 2011, Abate et al. 2014, Postelnicu and Hermes 2018). With the assistance of microfinance, households are able to expand opportunities for income accumulation, thus allowing people to provide for their families. Having access to credit can help stop poverty in the immediate term, disrupt the cycle of poverty by making money available, and facilitate potential business opportunities. Microfinance has also been known to cater to underserved and disadvantaged populations like women, disabled people, the elderly, the unemployed, and those who simply wish to meet their basic needs (Hansen et al. 2020). Given their initial focus on promoting financial inclusivity and supporting poverty relief, outreach to the poor has been accepted as MFIs' primary mission (Copestake 2007, Mersland and Strom 2010).

### **2.2 Microfinance reduces the poverty level**

MFIs have continued to grow with a mandate to stimulate entrepreneurial initiatives to create endogenous growth and alleviate poverty that prevailing approaches, such as foreign aid and government administered programs, have failed to address (Khavul 2010). Through these objectives, the first developmental goal of financial and social inclusivity of microfinance came to light. By providing financial services to economically active yet underprivileged people, microfinance is acknowledged as one of the most important development policy innovations in the world (Qudratl and Lutfor Rahman 2006, Ledgerwood et al. 2013). Financial inclusion hopefully comes with poverty and inequality eradication, and economic growth (United Nations Capital Development Fund 2015). Microfinance has been recognized as an important instrument to fight poverty by major organizations worldwide. Having access to credit can help stop poverty in the immediate term, disrupt the cycle of poverty by making money available, and facilitate potential business opportunities. Microfinance has also been known to cater to underserved and disadvantaged populations like women, disabled people, the elderly, the unemployed, and those who simply wish to meet their basic needs (Hansen et al. 2020).

### **2.3 Financial Literacy, Financial services and Insurance**

MFIs directly affect household income through encouraging productivity, increasing diversity of production, providing insurance and marketing schemes, and maximizing the utilization of available resources (Dejene 2007, Belwal et al. 2012, Fletschner and Kenny 2014)

## **3. OBJECTIVES OF THE STUDY**

1. To understand the Impact of Microfinance on the financial development of Clients of MFI through their Experience
2. To highlight the measures to improve the services offered by MFIs based on the expectations of MFI clients
3. To analyse the relationship between the utilization of MFI loans and the improvement in the financial position of MFI clients

## **4. RESEARCH METHODOLOGY**

Significant approach of impact assessment in the social science research field is highlighted by using mixed methodologies such as publication and citation analysis, interviews with principal investigators, peer assessment and



case studies (Milat 2015). Using the scientific impact assessment methodologies such as randomized control trial and quasi-experimental are difficult to employ and also costly (Karlan 2001; Swain and Varghese 2009). Effective and viable method of interviews with principal investigators are employed in this study. The primary data have been collected from the borrowers of Microfinance institutions by administering a well-structured interview schedule. Views of the borrowers of MFIs obtained towards the role of microfinance in enabling their financial fulfillment.

#### 4.1 Sample Selection

Totally 303 Microfinance Institutions are functioning in Tamilnadu as per the Sadhan report 2019-20.(MFI Directory Sa dhan 2020). To conduct the research study, stratified random sampling method was used. Districts in Tamilnadu are divided into four parts based on their regions viz., East, West, North and South (strata). In each region one district is randomly selected based on the spread of higher number of offices of Microfinance institutions. Accordingly four districts are selected namely Chennai from northern districts, Madurai from southern districts, Tiruvarur district from western districts and Erode from eastern districts. In all the four districts totally 44 offices of various MFIs are operating which are considered for the study. The sample size was determined using the formula  $n = z^2 * p * (1 - p) / e^2$  (Daniel WW (1999)).The ideal sample size arrived at for this study is 323. Presuming 10 – 20 per cent rejection rate and approached the 450 active borrowers of MFIs in the selected four districts and obtained 400 with a distribution of 100 responses from Chennai, 110 responses from Tiruvarur, 102 responses from Erode and 88 responses from Madurai have been received and used for this study.

#### 4.2 Survey Variables

Opinion variables record the opinion or perception of respondents from their own experience.(Ken Yoah 2001) Variables such as behavior and attributes are significantly different from opinion variables because it is recording the concrete experience. Quinn Mcnemar 1946 has explained the efficient ways to conduct the opinion based research and scaling techniques to be used to make an impactful research.

### 5. ANALYSIS AND RESULTS

#### 5.1 Descriptive analysis

District wise comparison of basic demographic characteristics of Sample MFI borrowers is illustrated in Table 1.

**Table 1.Descriptive Analysis**

		Chennai	Thiruvarur	Erode	Madurai
<b>Total</b>	N	100	110	102	88
<b>Age group</b>	Mean of Age	25	28	25.5	22
	School upto 10th	61	63	61	51
<b>Education</b>	Diploma or HSC	16	19	18	17
	Graduate	23	28	23	20
<b>Occupation</b>	Salaried	24 (23.08)	31 (29.81)	24 (23.08)	25 (24.04)
	Wage Labourer	12 (25.53)	12 (25.53)	14 (29.79)	9 (19.15)
	Self employed	64 (25.70)	67 (26.91)	64 (25.70)	54 (21.69)
	Rural	21 (26.25)	22 (27.50)	22 (27.50)	15 (18.75)
<b>Residence</b>	Semi urban	55 (25.46)	57 (26.39)	56 (25.93)	48 (22.22)
	Urban	24 (23.08)	31 (29.81)	24 (23.08)	25 (24.04)

Note- Figures in parenthesis denotes the percentage value

The descriptive analysis exhibits four variables of Demographic and socioeconomic characteristics. These are respondent's age (coded as interval numbers), Education, Occupation and Residence status which are all coded in numbers under ordinal scale. There is no large difference on the demographic characteristics of MFI borrowers among the four districts. Borrowers in Thiruvarur district are older as compared to other districts. There is no significant difference in the educational status of borrowers. Major number of borrowers in all four districts has completed school level education. Occupational status shows that the major number of borrowers was self employed and salaried class and this distribution was equal in all districts except Thiruvarur. Borrowers from Rural and urban areas showing a



marginal difference among the four districts. Borrowers belongs to urban areas are high in Chennai and lower in Madurai. Also the borrower's from rural areas is lower in Chennai and higher in other three districts.

### 5.2 Borrowers' Experience with Microfinance Institutions – Perception towards the impact of MFI

Borrower's perception about the influence of Microfinance is the dependent variable in ordinal scale. List of variables used are 'MFI has helped me in improving my Business', 'MFI enriched my financial literacy knowledge', 'MFI helped me to manage uncertain situation', 'MFI has helped to reduce our poverty level', 'Insurance coverage may help our family in case of uncertain situation', 'Family income has increased after availing MFI Loan' and 'MFI fulfills all our financial needs'. Respondents are grouped based on their districts namely Chennai, Tiruvarur, Erode and Madurai. Kruskal Wallis H test has been used to identify the significant difference on the perception of Microfinance among four districts. Kruskal-Wallis's test, proposed by Kruskal and Wallis in 1952, is a nonparametric method for testing whether samples are originated from the same distribution. The null hypothesis is framed as 'There is no significant difference in the Borrowers perception on the influence of Microfinance among four districts'. Before conducting the test, assumptions of normality has been checked and fulfilled through Kolmogorov – Smirnov test. Result shows that the p value is less than 0.05 and it indicates that data are normally distributed.

**Table 2 Borrower's perception on the influence of Microfinance among Chennai, Thiruvaru, Erode and Madurai Districts - Kruskal wallis Test**

S.No	Customer's Experience	Districts	N	Mean Rank	Chi square value	Sig.
1	Microfinance helped to expand the scale of business	Chennai	100	259.4	53.007	0.001
		Thiruvarur	110	216.1		
		Erode	102	160.2		
		Madurai	88	172.0		
2	MFI enriched my financial literacy knowledge	Chennai	100	201	0.129	0.99
		Thiruvarur	110	197.9		
		Erode	102	200.7		
		Madurai	88	202.9		
3	MFI helped me to manage uncertain situation	Chennai	100	204.1	2.811	0.421
		Thiruvarur	110	186.5		
		Erode	102	206.6		
		Madurai	88	206.7		
4	MFI has helped to reduce poverty level	Chennai	100	224.1	14.173	0.003
		Thiruvarur	110	206.8		
		Erode	102	194.4		
		Madurai	88	152.7		
5	Insurance coverage may help our family in case of uncertain situation	Chennai	100	199	0.126	0.989
		Thiruvarur	110	200		
		Erode	102	200		
		Madurai	88	203.2		
6	Family income has increased after availing MFI Loan	Chennai	100	183	24.602	0.001
		Thiruvarur	110	178.5		
		Erode	102	228.1		
		Madurai	88	215.7		
7	MFI fulfills all our financial needs	Chennai	100	186.1	5.917	0.116
		Thiruvarur	110	216.6		



Erode	102	197.6
Madurai	88	199.9

Results of analysis exhibit that three variables have significant p value of less than 0.05. This indicates that the opinion of borrowers with respect to ‘Microfinance helped to expand the scale of business’, ‘MFI has helped to reduce our poverty level’, and ‘Family income has increased after availing MFI Loan’ are varied among the MFI borrowers of Chennai, Thiruvarur, Erode and Madurai districts. Other variables do not have significant difference and it indicates that the opinion of borrowers in the sample districts is same.

Test results can be interpreted for the opinion of borrowers about ‘Microfinance helped to expand the scale of businesses’ has significantly different with

$$H(3, n = 400) = 53, p = .001$$

and the respective mean rank of Chennai district is 259.4, Thiruvarur district is 160.1, Erode district is 172.8 and Madurai district is 216. From the mean rank score, it can be observed that, Level of agreement of borrowers towards Microfinance has helped to expand their business scale is higher in Chennai and Madurai districts as compared to Thiruvarur and Erode districts.

#### *MFI has helped to reduce our poverty level*

It is inferred that p value of less than 0.05 for the opinion of borrowers about ‘MFI has helped to reduce our poverty level’ indicates a significant difference on the opinion among the districts  $H(3, n = 400) = 14.173, p = .001$ . The respective mean rank of Chennai district is 224.1, Thiruvarur district is 206.8, Erode district is 194.4 and Madurai district is 172.7. From the mean rank score it can be observed that, Level of agreement of borrowers towards MFI has helped to reduce our poverty level is higher in Chennai, Thiruvarur and Erode districts as compared to Madurai district.

#### *Family income has increased after availing MFI Loan*

It is inferred that p value of less than 0.05 for the opinion of borrowers about ‘Family income has increased after availing MFI Loan’ indicates a significant difference on the opinion among the districts  $H(3, n = 400) = 24.6, p = .001$ . The respective mean rank of Chennai district is 183, Thiruvarur district is 178.5, Erode district is 228.5 and Madurai district is 215.7. From the mean rank score it can be observed that, Level of agreement of borrowers towards Family income has increased after availing MFI Loan is higher in Chennai, Thiruvarur and Erode districts as compared to Madurai district.

### 5.3 Customer’s Expectation with Microfinance Institutions – Suggestion towards the improvement of MFI

Kruskal wallis test results for the Expectations of MFI clients is exhibited in the Table 3 and interpreted as follows.

**Table 3 Expectations of MFI clients – Kruskal Wallis Test**

S.No	Customer’s Expectation	Districts	N	Mean Rank	Chi square value	Sig.
1	Loan amount offered by MFI has to be increased	Chennai	100	195.035	1.316335	0.72
		Thiruvarur	110	198.5273		
		Erode	102	199.1373		
		Madurai	88	210.7557		
2	Interest rate need to be reduced	Chennai	100	179.22	6.790298	0.09
		Thiruvarur	110	207.5545		
		Erode	102	209.9314		
		Madurai	88	204.9318		
3	Customer service may be improved with respect to technology	Chennai	100	211.98	3.69892	0.03
		Thiruvarur	110	190.5045		
		Erode	102	191.0245		
		Madurai	88	210.9318		



4	More financial products/Services may be added in the portfolio	Chennai	100	197.77	4.458567	0.21
		Thiruvarur	110	216.2545		
		Erode	102	198.6569		
		Madurai	88	186.0455		
5	MFI may introduce additional insurance products	Chennai	100	203.575	1.40169	0.05
		Thiruvarur	110	191.0136		
		Erode	102	207.5343		
		Madurai	88	200.7102		
6	MFI may conduct more effective Skill development/ training assistance programs	Chennai	100	212.185	6.461797	0.05
		Thiruvarur	110	207.4136		
		Erode	102	179.5441		
		Madurai	88	202.8693		
7	MFI may Counsel Default borrowers	Chennai	100	206.91	0.710293	0.87
		Thiruvarur	110	199.9773		
		Erode	102	200.7157		
		Madurai	88	193.6193		
8	COVID 19 Pandemic relief measures by MFI might be still more and better.	Chennai	100	192.1	2.331515	0.05
		Thiruvarur	110	212.8545		
		Erode	102	200.8039		
		Madurai	88	194.25		

Customer's expectation is analysed through the level of agreement with each variable which are framed with five point likert scale. The variables are 'Loan amount offered by MFI has to be increased', 'Interest rate need to be reduced', 'MFI Customer service may be improved with respect to technology', 'More financial products/Services may be added in the portfolio', 'MFI may introduce additional insurance products', 'MFI may conduct more effective Skill development/ training assistance programs', 'MFI may Counsel Default borrowers' and 'COVID 19 Pandemic relief measures by MFI might be still more and better'.

Results of analysis show that four variables out of eight have obtained the p value of less than 0.05, it indicates a significant difference in the opinion of sample borrowers and the respective mean score helps to compare the district wise response.

For the variable 'Customer service may be improved with respect to technology' has obtained the significant value of  $H(3, n = 400) = 3.69, p = .03$  and the mean score of Chennai district is 211.9, Thiruvarur district is 191.5, Erode district is 190.2 and Madurai district is 210.9. Higher mean rank score in the districts of Chennai and Madurai reflect the opinion of improving the customer service through technology is higher as compared to Thiruvarur and Erode districts.

Similarly, the variable 'MFI may introduce additional insurance products' has obtained the p value of  $H(3, n=400) = 1.40, p = 0.05$  and mean rank of Chennai district is 203.57, Thiruvarur district is 191.01, Erode district is 207.53 and Madurai district is 200.71. From mean rank of districts it can be observed that, Customers opinion on introducing additional insurance product is higher in all districts except Thiruvarur district.

With regard to the opinion of customers about 'MFI may conduct more effective Skill development/ training assistance programs' has obtained the results of  $H(3, n=400) = 6.46, p = 0.05$  with mean rank score of 212.18 in Chennai district, 207.41 in Thiruvarur district, 179.54 in Erode district is and 202.86 in Madurai district.



Opinion of MFI borrowers about the COVID 19 Pandemic relief measures taken by MFIs might be still more and better or efficient has obtained the p value of  $H(3, n=400) = 2.33$  and  $p = 0.05$  and the respective mean scores are 192.1 in Chennai district, 212.85 in Thiruvavur district, 200.80 in Erode district and 194.25 in Madurai district.

## 6. DISCUSSION

The above results reveal the perception of MFI borrowers towards impact of Microfinance through their experience over the years. Level of agreement on various statements about the impact of MFIs helps to differentiate degrees of opinion in sample districts. MFIs are the most important credit source for Self employed and micro entrepreneurs mainly led by women. Loan cycles with increased capital help to fill the credit gap on each stage of enhancement of their business. This is highly agreed by the borrowers in the districts of Chennai, Thiruvavur and Madurai.

Small vendors and road side sellers mainly depend on the income they earned daily. This is more sufficient to consume their daily needs. They often struggle to cost their inputs. Microfinance became the solution to these problems by funding their cost of inputs. This enables them to come out of poverty. From the mean score of Chennai, Thiruvavur and Erode, it is evident that the MFI borrowers in these districts highly agreed that MFIs help to reduce the poverty level.

MFI borrowers have common and same level of agreement over the opinion of MFIs are helpful to improve the financial literacy knowledge, Microfinance fulfills their financial needs and Microfinance helps to manage the uncertain situation or emergency need of finance.

Microfinance is helpful to build the financial stability among the daily wage earners and more specifically, family with multiple earning members. Consumption purpose or personal expenses are fulfilled through the micro loans and they are able to contribute to build up their savings without any fall and in the short span they are able to repay the dues without over indebtedness. This is highly agreed in the districts of Erode and Madurai.

## 7. SUGGESTIONS AND CONCLUSION

The study highlights the suggestions based on the expectation of borrowers of MFIs in the sample districts. From the results and the level of agreement, MFI borrowers in all four districts have expressed the uniform agreement over the statement of increasing the loan amount, Counseling default borrowers and introducing more financial products.

Reduction in the rate of interest is the common expectation of all the MFI borrowers in all sample districts except Chennai district. Improved service quality based on technology is most expected in the districts of Chennai and Madurai.

Many MFI borrowers in the sample districts were inspired by the microfinance associated with skill development program and arranging training programs such as tailoring, handicrafts and making candles and agarbathis. For instance, Bharathi women development center in Thiruvavur district started by organizing need based awareness camps, environmental protection and women empowerment. The major approach followed is forming communities and supporting them to attain sustainable socio economic growth. Successful microfinance operations of BWDC since 1992 to till today have reached millions of people through their 11 branches all over Tamil nadu. Microfinance is not only a credit supplement but also a game changer in the socio economic growth with its community based or group based financing program.

## REFERENCE

1. Nogueira, Serafim & Duarte, Fabio & Gama, Ana. (2020). *Microfinance: where are we and where are we going?. Development in Practice*. 30. 1-16. 10.1080/09614524.2020.1782844.
2. Meesters, Aljar & Lensink, Robert & Hermes, Niels. (2008). *Outreach and Efficiency of Microfinance Institutions. University of Groningen, Research Institute SOM (Systems, Organisations and Management), Research Report*. 39. 10.2139/ssrn.1143925.
3. Abate, G. T., Borzaga, C. and Getnet, K. (2014). *Cost-efficiency and outreach of microfinance institutions: Trade-offs and the role of ownership. Journal of International Development*, 26, pp. 923-932
4. Luminita Postelnicu & Niels Hermes, 2018. "Microfinance Performance and Social Capital: A Cross-Country Analysis," *Journal of Business Ethics, Springer, vol. 153(2), pages 427-445, December.*



5. United Nations Capital Development Fund. (2015). *Inclusive Finance – Increasing Access to Financial Services*. New York.
6. Copestake, James. (2007). *Mainstreaming Microfinance: Social Performance Management or Mission Drift?*. *World Development*. 35. 1721-1738. 10.1016/j.worlddev.2007.06.004.
7. Mersland, Roy & Strøm, Reidar. (2010). *Microfinance Mission Drift?*. *World Development*. 38. 28-36. 10.1016/j.worlddev.2009.05.006.
8. Khavul, Susanna. (2010). *Microfinance: Creating Opportunities for the Poor?*. *Academy of Management Perspectives*. 24. 58-72. 10.5465/AMP.2010.52842951.
9. Elahi, Khandakar & Rahman, M. (2006). *Micro-credit and micro-finance: Functional and conceptual differences*. *Development in Practice*. 16. 10.1080/09614520600792481.
10. *Microfinance: where are we and where are we going?*, *Development in Practice*, DOI:10.1080/09614524.2020.1782844
11. Ledgerwood J (2013): *The microfinance handbook: A financial market system perspective*. The World Bank, Washington, D.C.
12. Dejene, Y. (2007). "Promoting women's economic empowerment in Africa", In *Africa Economic Conference, Addis Ababa* (pp. 15-17)
13. Belwal, R.T., Misrak and Singh, G. (2012), "Microfinance and sustained economic improvement: women small scale entrepreneurs in Ethiopia", *Journal of International Development*, Vol. 24, pp. S84-S99.
14. Fletschner, Diana & Kenney, Lisa. (2014). *Rural Women's Access to Financial Services: Credit, Savings, and Insurance*. *Gender in agriculture*. 187-208. 10.1007/978-94-017-8616-4\_8.
15. Karlan, Dean. (2001). *Microfinance Impact Assessments: The Perils of Using New Members as a Control Group*. *Journal of Microfinance*. 3.
16. Bali Swain, Ranjula & Varghese, Adel. (2010). *Microfinance 'Plus': The Impact of Business Training on Indian Self Help Groups*. Working paper series, Department of Economics, Uppsala University.
17. Kumar, Shantanu; Pinto, Alreena Renita; Arora, Amit; Roy, Sourav. 2020. *SHG-Bank Linkage : A Success Story*. *South Asia Agriculture and Rural Growth Discussion Note Series*;No. 3. © World Bank, Washington, DC.
18. Milat, A.J., Bauman, A.E. & Redman, S. A narrative review of research impact assessment models and methods. *Health Res Policy Sys* 13, 18 (2015). <https://doi.org/10.1186/s12961-015-0003-1>
19. McNemar, Q. (1946). *Opinion-attitude methodology*. *Psychological Bulletin*, 43(4), 289–374. doi:10.1037/h0060985