Impact of Microfinance on Poor Women : Lessons from North Gujarat

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Abstract

Today, microfinance is considered as one the important financial services in many countries. Microfinance is preferred to alleviate poverty. It empowers women and uplifts their standard of living. The present study was conducted to assess the impact of microfinance on poor women. This study was done on 384 poor women in North Gujarat who had the Below Poverty Line (BPL) Card. This study was carried out using correlation, regression, and factor analysis. From the factor analysis on 30 variables, four major factors emerged : (a) Enhancement in Quality of Food, Education, Shelter, and Health Services, (b) Enhancement in Monthly Income and Spending, (c) Enhancement in Decision Making Ability, and (d) Development of Personality. Correlation analysis revealed that data was fit for performing regression analysis. A regression analysis was run on the four factors derived from factor analysis, where the Enhancement in Monthly Income and Spending contributed the most ; whereas, Development of Personality contributed the least to the upgradation of social and economic status of women. Overall, the study has practical implications where the government and non government organizations (NGOs) can work on microfinance services and can reduce the level of poverty and uplift the living standard of poor people.

Keywords : **living standard, microfinance, poor women, poverty alleviation, women empowerment**

JEL Classification : G210, I32, I38, R210

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Microfinance is perceived as finance for poor and is referred to as small-scale financial service. Microfinance emerged in the year 1970 in Bangladesh, where Mr. Mohammad Yunus played a key role in its implementation. Today, in many countries, microfinance has made a significant contribution to the reduction in poverty levels. In rural India, microfinance has played an important role in poverty alleviation (Sahu, 2015). Further, microfinance service leads to women empowerment, development of entrepreneurial activities among women, and improvement in their living standard (Nawaz, 2010). Moreover, for backward and developing countries, microfinance contributes towards economic development. With the passage of time, many Asian and African countries have adopted microfinance based services. In India, microfinance services have grown to a large scale with help of self-help groups. Especially in rural areas, it has grown as an important service in the basket of financial services. Microfinance is considered as a significant contributor towards women

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empowerment (Kumar & Jasheena, 2016 ; Patel & Patel, 2012; Patel & Patel, 2017; Singh & Singh, 2012).

With the consideration of the present scenario, this study is an effort to assess the effect of microfinance on poor women with respect to poverty alleviation, improvement in living standard, and women empowerment in rural areas of North Gujarat. For this study, only women below poverty line were considered. It became difficult to assess the income of respondents and decide whether they were poor or not. Therefore, only the families with BPL card issued by the government were considered for the study. The study was conducted in August, 2017.

Literature Review

Many studies have been conducted by various researchers across the globe to examine the impact of microfinance on poverty alleviation, living standard, and women empowerment. Elahi (2003) evaluated the impact of microfinance on women empowerment with respect to *shudra* (backward) women in India. The researcher found that microfinance lead to an increase in decision making, improvement in living standard, and confidence in women. Overall, the study concluded that after joining SHGs, the women were empowered. Kabeer (2005) studied microfinance as a tool to empower women in South Asia. A study was conducted with reference to social and economic improvement of women after using microfinance services. The study found positive outcome of microfinance services on women empowerment. Pitt, Khandker, and Cartwright (2006) studied the impact of microfinance on women empowerment and poverty reduction. The researchers surveyed a total of 1798 households belonging to 87 villages of Bangladesh. Using OLS regression, it was revealed that microfinance led to an improvement in living standard of women in terms of food and health. Further, it was observed that microfinance reduced poverty.

Basargekar (2009) studied the role of microfinance in women empowerment with respect to starting a microenterprise. A total of 217 SHG members were surveyed based on the list of Forbes Marshall companies in India. The researcher applied ANOVA and found that microfinance empowered microenterprises. It further revealed that microfinance led to poverty reduction and empowerment of SHG members. Swain and Wallentin (2009) studied a sample of 961 SHG members with reference to the impact of microfinance on women empowerment in India. The researchers applied regression and revealed that microfinance led to an improvement in the living standard of women and a decrease in the level of poverty. Overall, microfinance remained positive for poverty reduction. Khavul (2010) studied microfinance with reference to opportunity generation for the poor. The researcher found that microfinance supported poor in entrepreneurial activities and it led to income generation for the poor. Further, with support of microfinance, the poor became financially strong which improved their living standard and income. Leach and Sitaram (2002) studied the impact of microfinance on the empowerment of scheduled caste (SC) category women working in the silk reeling industry in India. The researchers applied mean score and percentage as analytical tools to conduct the study. It was found that the level of income of women working in the silk reeling industry increased after joining SHGs. Further, microfinance services led to a reduction in the level of poverty, and improved their living standards too.

Sivachithappa (2013) carried out a study on the impact of microfinance on the livelihood of 186 SHG members in the Mandya district of Karnataka state in India. The researcher applied mean score and standard deviation as an analytical tool. From the study, it was revealed that after joining SHGs, the level of income of SHG members increased and microfinance was one of the important tools for poverty alleviation. Suprabha (2014) evaluated the development of enterprise with financial support from SHGs to assess the impact of microfinance on poverty alleviation. The researcher surveyed 200 respondents and applied correlation and regression analysis. The study revealed an outcome that microfinance led to enterprise development and poverty reduction. Overall, microfinance is a tool to reduce the level of poverty by developing entrepreneurial activities. Mukherjee (2015) studied the impact of microfinance on poverty alleviation in Murishabad district of West Bengal. The researcher

used two-period panel data collected in the years 2006 and 2008, respectively. The respondents belonged to backward caste, scheduled caste, and the muslim community. The study revealed that microfinance led to a decrease in the level of poverty and improvement in living standards.

Again, government and non government organizations (NGOs) also run microfinance programmes to empower women and to reduce poverty. Many researchers have conducted studies to ascertain the impact of government supported or NGO supported microfinance programmes on poverty alleviation and women empowerment. In one study, Hunt and Kasynathan (2001) studied NGO based microfinance as a tool to improve living standard in two countries of South Asia, that is, India and Bangladesh. The study found that the NGO based microfinance activities improved the living standard of women and reduced the gender gap. Overall, NGO based microfinance made a positive impact on both the countries.

In another study, Sinha, Parida, and Baurah (2012) studied the impact of NABARD sponsored microfinance programme on women empowerment and poverty alleviation. Researchers surveyed a total of 5691 SHG members from six states, that is, Andhra Pradesh, Assam, Karnataka, Maharashtra, Orissa, and Uttar Pradesh. It was found from the study that after joining SHGs, entrepreneurial activities increased among women and it led to a decrease in their poverty level. Further, after joining SHGs, living standard of 26% of the women improved. Mazumder and Wencong (2015) studied the difference in impact of microfinance on poverty reduction efforts of government and non-government programmes in Bangladesh. Researchers surveyed a total of 300 respondents who had taken services of microfinance from government and non-government organizations. By applying factor analysis and regression analysis, the study found that as compared to government programmes, non-government programmes had more impact on poverty reduction. Othman (2015) studied the impact of government sponsored Islamic microfinance programme on the prosperity of women in Malaysia. The researcher studied entrepreneurship development in women with reference to funding support from microfinance services. The study found that funding from microfinance institutes led to an increase in number of start-ups. Further, it led to an increase in family income and reduction in poverty. Overall, the study found positive outcomes of the programme.

Samer, Majid, Rizal, Muhamad, and Rashid (2015) undertook a study in two states of Malaysia. The researchers studied 780 respondents from both the rural and urban areas. The study was done with respect to a government sponsored microfinance programme named AmanahIkhtiar Malaysia. Researchers applied multinomial logistic regression on the data and found that microfinance increased household income of the respondents. Furthermore, the study concluded microfinance to be a poverty reduction tool. Hassan and Saleem (2017) studied the impact of SHG-based Islamic microfinance on living standards and women empowerment in Bangladesh. A total of 700 women were surveyed for the study and data were analyzed using regression. From the study, it was found that Islamic microfinance empowered women both socially and economically. Further, after joining SHGs, the living standard of women improved with increase in spending.

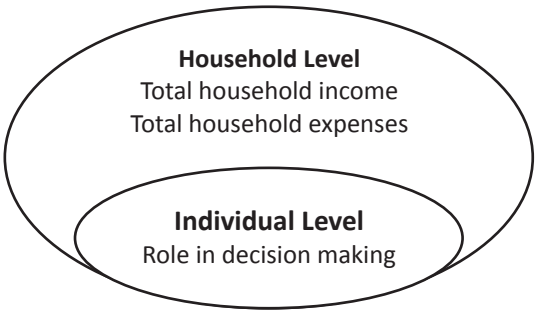
Overall, the literature review of microfinance suggests the selection of proper methodology and proper variables to understand the impact of microfinance on women empowerment, increase in level of income, and poverty reduction.

Research Methodology

This research work was done with the objective of studying the impact of microfinance on living standard upgradation, poverty alleviation, and empowerment of women. This study was done on poor women in four districts of North Gujarat region of Gujarat state.

(1) Selection of the Variables : Here, the impact of microfinance was assessed at the individual and household levels. At all the stages, the variables were selected to measure the impact of microfinance. The variables are

Figure 1. Variables Used for the Study at Household and Individual Levels



income, expenditure, quality of life, education, nutrition, role in decision making, etc. The variables are depicted in the Figure 1.

(2) Variables Used in the Study : The study has been conducted using many variables. The variables are discussed below :

(i) Income : Income is a variable which shows the level of economic condition of a household. Here, income is taken into consideration to measure the impact of microfinance on the economic condition of a household. Here, income is also used as a variable to measure microfinance as a tool to reduce the poverty levels.

(ii) Expenses : The second variable in the study is standard of living. It has been covered under two variables, namely, expenses and quality of life. Here, expenses pertaining to food, education, shelter, and health services are taken into consideration. These facilities are part of basic necessity in life of any human being. An increase in the level of expenses after joining SHGs can be used to measure microfinance as tool of improvement in the standards of living.

(iii) Quality of Life : In order to check the impact of microfinance on the upgradation of living standards of poor women, the variable quality of life is used. For this variable, various factors namely, the availability of quality food for consumption, availability of better shelter facilities, availability of better education facilities, availability of good health facilities, and availability of nutritious food are covered to evaluate the impact of microfinance on upgradation of living standards.

(iv) Role in Decision Making : After measuring microfinance as a tool to reduce the level of poverty and improvement in standards of living, the next step is to measure the impact of women empowerment. This variable has been used to check women empowerment as through this variable, an outcome on the part of women empowerment with microfinance services can be drawn. Women empowerment is analyzed on the basis of two dimensions, that is, (a) social decision making and (b) financial decision making.

[i] Social Decision Making : In the past, many researchers took child education as a variable to study women empowerment, but looking at the present requirement, the decision on the education of the girl child is considered. The reason for selecting girl child's education is because of the present problem of preference for male children in education as compared to female children in the state of Gujarat. Apart from this, the involvement of women in

decision making in family matters or problems is considered to determine the level of women empowerment in social decision making.

[ii] Financial Decision Making : Women empowerment with respect to financial decision making has been measured using two factors, that is, decision on taking loan facilities and use of loan taken. As women take loans for their household and business purposes, financial decision making becomes an important factor to measure women empowerment with respect to this decision. Further, the decision by women on the use of the loans is considered important on the dimension of decision making.

(3) Research Questions : The following research questions were modelled:

(i) Does microfinance make an impact on household income ?

(ii) Does microfinance make an impact on living standards in terms of quality and expenditure ?

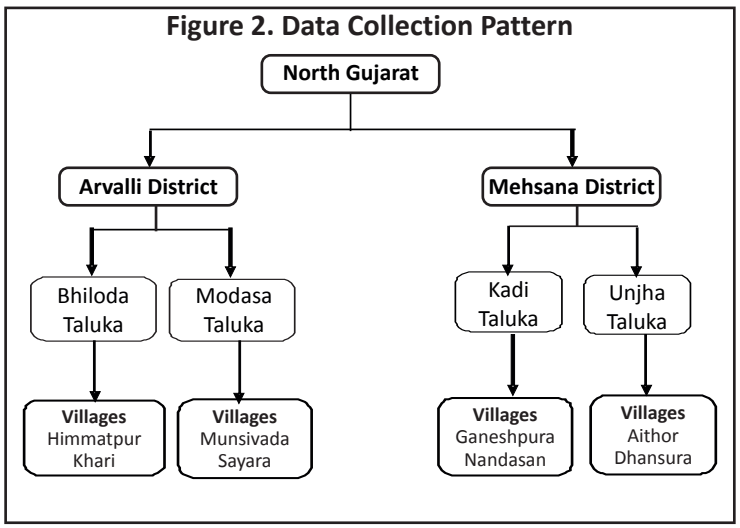
(iii) Does microfinance make an impact on women empowerment ?

(4) Sample Size Determination and Data Collection : 384 respondents were surveyed for the study using a judgmental sampling method. Each respondent was selected on the basis of fulfilling two conditions : (a) the respondent should be such who had used microfinance services and was associated with any of the microfinance firms, and (b) the respondent should belong to any of the North Gujarat districts, that is, Arvalli and Mehsana. The respondents were surveyed from four talukas (a taluka is a sub-division of a district) belonging to the districts listed in Figure 2. The Figure 2 depicts the data collection pattern. On the basis of the literature review, we decided the variables to measure the impact of microfinance on women empowerment, income improvement, and upliftment in living standards. On the basis of the selected parameters, a structured questionnaire was framed. A set of 30 structured questions consisting of Likert scale were used to collect the data. The instrument was a pilot test at the Senmavas in Nandasan village of Kadi taluka. Data were collected through personal interviews. Here, the sample size of 384 was decided using a sample determination method suggested by Kothari (2004).

$$Z = 1.96, p = 0.5,\ q = 0.5, e = 0.05$$

$$n = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2} = \frac{0.9604}{0.0025} = 384 \text{ Respondents}$$

Figure 2. Data Collection Pattern



(5) Research Design and Statistical Tests Used : A descriptive research design was used in this study. This study was undertaken using correlation, regression, reliability analysis, and factor analysis. Correlation was used as a prerequisite for conducting regression analysis. Reliability analysis is a pre-requisite for conducting factor analysis. Further, factor analysis was performed to draw factors from the variables and regression was done on these factors to measure the impact of microfinance.

Data Analysis and Results

Data analysis covers the profile of the respondents, reliability analysis, factor analysis, correlation analysis, and regression analysis.

(1) Profile of the Respondents

(i) Age : The Table 1 shows the age profile of the respondents. The age group ranges from less than 20 years to more than 61 years, which further shows that the sample covers all age groups. In total, 82.5% of the respondents fell in the age group of 21-25 years, 26 -30 years, 31-35 years, and 36-40 years. Moreover, majority of the respondents were young.

(ii) Educational Background : The educational profile of the respondents is depicted in the Table 2. Here, the highest level of education is graduation ; 41.7% of the respondents had an educational level till high school ; 24.5% and 12.8% of the respondents had education till primary schooling and 5th standard, respectively ; 12.2 % of the respondents were illiterate. Only 2.3% of the respondents were graduates. Overall, there is a mix level of education among the respondents. The educational level is an important factor as it determines the earning capacity of a respondent.

(iii) Religion : The Table 3 shows the religion of the respondents ; 87.7% of the respondents were Hindus by religion. In total, 12.24% of the respondents belonged to Muslim, Christian, Sikh, Jain, and Buddhist religions. Overall, majority of the respondents were Hindus.

Table 1. Age of the Respondents

Age level	Number of Respondents	%
Less than 20 Years	15	3.9
21-25	43	11.2
26 -30	154	40.1
31-35	103	26.8
36-40	17	4.4
41-45	4	1.0
46-50	8	2.1
51-55	12	3.1
56-60	17	4.4
More than 61 years	11	2.9
Total	**384**	**100.0**

Table 2. Educational Profile of the Respondents

Education level	Number of Respondents	%
Illiterate	47	12.2
Can only sign	25	6.5
Up to fifth standard	49	12.8
Primary	94	24.5
High school	160	41.7
Graduate	9	2.3
Total	**384**	**100.0**

Table 3. Religion Practised by Respondents

Religion	Number of Respondents	%
Hindu	337	87.76
Muslim	20	5.21
Christian	12	3.13
Sikh	9	2.34
Jain	2	0.52
Buddhist	4	1.04
Total	**384**	**100**

Table 4. Income Level of the Respondents

Income level	Number of Respondents	%
< ₹ 1, 000	107	27.9
₹ 1, 000 - ₹ 5, 000	88	22.9
₹ 5, 001- ₹ 10, 000	167	43.5
₹ 10, 001 - ₹ 20, 000	18	4.7
₹ 20, 000 & above	4	1.1
Total	**384**	**100.0**

(iv) Income : The Table 4 shows the monthly income profile of the respondents. Here, 43.5% of the respondents had income in the range of ₹ 5,001 - ₹ 10,000. Further, 22.9% and 27.9% of the respondents had income in the range of ₹ 1,000 - ₹ 5,000 and less than ₹ 1,000, respectively. Overall, 94.2% of the respondents had an income of less than ₹ 10,000 per month.

(v) Marital Status : The Table 5 shows that 55.5% of the respondents were married ; whereas, 20.3% of the respondents were unmarried. Out of the total respondents, 8.6% and 5.5% respondents were widows and divorced, respectively. Overall, there were respondents from mixed background on the ground of marital status.

(vi) Family Structure : The Table 6 shows the family structure of the respondents ; 57.8% of the respondents belonged to the joint family system ; whereas, 42.2% of the respondents had a nuclear family structure. Overall, there is mixed background on the dimension of family structure among the respondents.

Table 5. Marital Status of the Respondents

Marital status	Number of Respondents	%
Married	213	55.5
Committed	39	10.2
Unmarried	78	20.3
Widow	33	8.6
Divorce	21	5.5
Total	**384**	**100.0**

Table 6. Family Structure

Family structure	Number of Respondents	%
Joint Family	222	57.8
Nuclear	162	42.2
Total	**384**	**100.0**

Table 7. Family Size

Family size	Number of Households	%
Small (<=2)	22	5.72
Medium (3-4)	189	49.22
Large (>=5)	173	45.06
Total	**384**	**100**

Table 8. Type of Business

Type of Business	Frequency	%
Vendor	84	21.9
Tailoring	39	10.2
Handicraft	32	8.3
Small shop	48	12.5
Gruh udhyog	79	20.6
Agriculture	48	12.5
Animal husbandry	51	13.3
Housewife	3	0.8
Total	**384**	**100.0**

(vii) Family Size : The Table 7 shows the family size profile of the respondents ; 5.72% of the respondents had a small family size with two or less family members ; 49.22% of the respondents had medium family size with 3 to 4 family members ; 45.06% respondents had large family size with five or more members. The family size is one the important variables as the number of family members has an impact on increase in level of income, upgradation of living standards, and poverty alleviation.

Table 9. Nature of Business

Nature of Business	Frequency	%
Seasonal	138	35.9
Non- seasonal	246	64.1
Total	**384**	**100.0**

Table 10. Social Group

Social group	Number of Respondents	%
Open / General	11	2.86
Other Backward Class (OBC)	37	9.64
Scheduled Castes (SC)	181	47.14
Scheduled Tribes (ST)	155	40.36
Total	**384**	**100.00**

(viii) Type of Business : Type of business is important from the point of view of income generation. The Table 8 depicts the type of business of the respondents ; 21.9% of the respondents had ventured into business activity ; 20.6% respondents were into Gruh Udhyog ; small shop and agriculture as business were practiced by 25 % of the total respondents ; 13.3% of the respondents did animal husbandry as a business. Tailoring as a business activity was done by 10.2% of the respondents. Handicraft as an activity was practiced by 8.3% of the respondents ; 15% of the respondents were housewives. Overall, the selected respondents were practicing many businesses.

(ix) Nature of Business : The Table 9 shows the nature of business the respondents were practicing. In terms of the nature of business, 35.9% of the respondents were into seasonal business ; whereas, 64.1% were into non-seasonal nature of business. The nature of the business also affected the income earning capacity of the respondents over a period of a year.

(x) Social Group : The Table 10 shows the social group of the respondents. In terms of social group, 2.86% of the respondents were from the general category ; 9.64% of the respondents were from OBC category ; SC & ST category respondents were 47.14% and 40.36%, respectively. In many past studies, researchers have studied the respondents belonging to SC and ST categories. In this study, 87.5% of the respondents belonged to SC and ST categories.

(2) Reliability Test : The Table 11 demonstrates the results of reliability test. Cronbach's alpha authenticates the data as it relates the uniformity between two variables (Nunnally & Bernstein, 1978). It shows the value of Cronbach's alpha of 0.840, which is more than the required level of 0.6 (Cronbach, 1951). Moreover, the value of 0.840 falls in the range of 0.8 - 0.9, which further confirms that the data were good (Cronbach, 1951). Overall, the outcome of reliability test shows that the data were reliable for further study (Cronbach, 1951; Hair, Anderson, Tatham, & Black, 1998).

(3) Factor Analysis : Thirty (30) variables based on a Likert scale pertaining to living standards and social improvement are used to perform the factor analysis. Here, the KMO value of 0.776 is more than the required value of 0.5 (Leech, Barrett, & Morgan, 2005 ; Malhotra, 2004). Moreover, the KMO value of 0.776 falls in the

Table 11. Cronbach's Alpha

Cronbach's Alpha	Number of items
0.840	30

Table 12. Factor Analysis

Factor No.	Variable	Factor Loading	Factor Name
1	My family members are able to get quality food to consume.	0.617	**Enhancement in**
	My family members are able to get better shelter facility.	0.605	**Quality of Food,**
	My children are able to get better educational facility.	0.714	**Education, Shelter,**
	My family members are able to take advantage of good health services.	0.770	**and Health Services**
	My family members have become self-employed.	0.673	
	I am able to send my children to school regularly after getting financial help from SHGs.	0.645	
	I am able to improve nutrition in my house hold.	0.698	
2	My family members are able to spend on good health services.	0.693	**Enhancement in**
	I am able to spend upon the educational facility for my children.	0.757	**Monthly Income**
	I am able to increase expenses on my monthly food consumption.	0.623	**and Spending**
	My monthly family income has increased.	0.692	
	Working in SHGs has led to an increase in self-spending.	0.693	
	I am able to increase expenses on our monthly cloth consumption.	0.718	
3	I can take decision on getting a loan.	0.744	**Enhancement in**
	I can decide how to use loan money.	0.768	**Decision Making Ability**
	I can decide on family matters/problems.	0.668	
	I am able to take decision on education of my girl child.	0.657	
4	I am able to discuss freely with official people.	0.685	**Development of**
	I am able to communicate effectively.	0.684	**Personality**
	I am able to travel to other places without the support of male members.	0.652	
	I am able to attend social/panchayat meetings.	0.651	
	There has been an improvement in my social status.	0.621	
	There is an increment in awareness in relation to AIDS, govt. schemes for rural and social development, etc.	0.667	
	I can take up various social issues.	0.610	
	My leadership skills have developed.	0.671	
	Working with SHG leads to development of administrative skills.	0.601	
	Working with SHG leads to awareness on education of children.	0.681	
	Working with SHG leads to awareness of food and nutrition.	0.701	
	Working with SHG leads to expressing views in family as well as in groups freely.	0.640	
	Working with SHG leads to an increase in self confidence.	0.667	

range of 0.70 to 0.79, which is considered as middling for performing factor analysis (Hutcheson & Sofroniou, 1999). Moreover, the value of Bartlett's test of sphericity is lower than 0.05, which shows that the data are required (Leech et al., 2005). Further, the Bartlett's test of sphericity shows a level of significance at 1%, which reveals the appropriateness of data for performing factor analysis (Bartlett, 1954).

Factor analysis is used to minimize the amount of factors and draw some more meaningful factors from a set of factors. Tabachnick and Fidell (1996) endorsed factor analysis to scrutinize the set of factors and draw meaningful factors. Factor analysis works on many methods of factor generation such as Quartimax, Oblimin, and Varimax (Khavul, 2010). This study used a varimax rotation method to obtain factors from a set of factors ; 30 variables in total were categorized into four factors where the factor loading is greater than 0.5. Further, the factor with factor loading more than 0.5 reveals that the factors are significant and worthy of consideration for analysis (Kaiser, 1974). The results of factor analysis are depicted in the Table 12.

The Table 12 shows the results of factor analysis derived from SPSS 20 where the factor loading ranges from 0.60 to 0.77. As the factor loading of each of the items is more than 0.5, the convergent validity of each of the scales can be established and gives an evidence of validity (Hair et al., 1998). Here, any of the variables are not cancelled as the loading factor value of all variables is more than 0.5. Factor 1 is named as Enhancement in Quality of Food, Education, Shelter, and Health Services, which covers improvement in quality food, education, shelter facility, and health services after joining the SHGs. It further reveals that the living standards of women as individuals and their households improved after taking microfinance services. The Factor 2 is Increase in Monthly Income and Spending. This factor covers the increase in level of expenses with respect to food expenses, health expenses, education expenses, and self-spending. It further reveals that the level of spending and income increased at the individual level and household level which further enhanced the economic condition of the respondents which improved after the use of microfinance services. The Factor 3 is named as Enhancement in Decision Making Ability, which includes the ability to take decisions on getting loan, use of loan, family matters, and decision on education of girl child. It further reveals that microfinance improved both the financial and social decision-making ability of women after joining microfinance. The Factor 4 is about the Development of Personality, which includes the involvement of women in the development of administrative skills, awareness of children's education, etc. It further reveals that the personality of women developed after joining SHGs. Overall, microfinance services lead to increase in income, upgradation in living standards, and women empowerment.

(4) Regression Analysis : Multiple regression is used to check the impact of microfinance on improvement in living standards, poverty alleviation, and women empowerment. The dependent and independent variables are listed as shown in the Table 13.

Table 13. Dependent and Independent Variables

Variable Nature	Name of Variable	Definition	Label
Dependent variable	Development in the level of the self-confidence of women and their economic & social conditions.	Microfinance primes to upgrading the self-confidence of women and their economic & social conditions.	Y
Independent variable	(1) Factor 1	Enhancement in Quality of Food, Education, Shelter, and Health Services	X_1
	(2) Factor 2	Enhancement in Monthly Income and Spending	X_2
	(3) Factor 3	Enhancement in Decision Making Ability	X_3
	(4) Factor 4	Development of Personality	X_4

Table 14. Correlation Analysis

Variable	X_1	X_2	X_3	X_4	Y
X_1	1	-	-	-	-
X_2	0.221	1	-	-	-
X_3	0.201	0.089	1	-	-
X_4	0.210	0.061	0.284	1	-
Y	0.386	0.347	0.437	0.359	1

Table 15. Multiple Regression Analysis

Variable	R^2	Unstandardized Coefficients		Standardized Coefficients	*t*-test	Sig.
		B	Standard Error	Beta		
X_1	0.0075	0.6816	0.1010	0.1723	1.70	0.0000
X_2	0.0218	0.6761	0.1009	0.2947	2.91	0.0003
X_3	0.0187	0.6778	0.0664	0.1797	2.70	0.0004
X_4	0.0255	0.6754	0.3664	0.1157	3.16	0.0016

(i) Dependent Variable : Improvement in the level of self-confidence of women and their economic & social conditions is taken as the dependent variable.

(ii) Independent Variables : 30 variables were used to conduct factor analysis. From the factor analysis, four variables were extracted namely, Enhanced Decision Making Ability ; Enhancement in Monthly Income and Spending ; Enhancement in Quality of Food, Education, Shelter, and Health Services ; and Development of Personality.

(iii) Model Construction : The value of correlation should be 0.3 or more for conducting regression analysis (Hair et al., 1998). The results of correlation are presented in the Table 14.

The Table 14 shows the results of correlation analysis. Here, the correlation value of each independent variable with the dependent variable is more than 0.3, which further implies that the data are perfect for conducting regression analysis (Hair et al., 1998). In order to perform regression analysis, a model on the basis of dependent and independent variables was constructed which is depicted as below :

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \delta t \quad \ldots\ldots (1)$$

where,
Y is the dependent variable. The four independent variables are X_1, X_2, X_3, and X_4 ; α and β_1, β_2, β_3, β_4 are intercept and regression coefficients, respectively ; and δt denotes the error term.

The Table 15 shows the results of regression analysis. Factor 1 (Enhancement in Quality of Food, Education, Shelter, and Health Services), Factor 2 (Enhancement in Monthly Income and Spending), Factor 3 (Enhancement in Decision Making Ability), and Factor 4 (Development of Personality) have beta coefficients of 0.1723, 0.2947, 0.1797, and 0.1157, respectively. It reveals that the Factors 1, 2, 3, and 4 have 17.23%, 29.47%, 17.97%, and

11.57% variations in the upgradation of social and economic status of women, respectively. Moreover, the enhancement in monthly income and spending contributes the most ; whereas, development in personality contributes the least to the upgradation of the social and economic status of women.

Discussion and Conclusion

In order to address the various research questions, factor analysis and regression are used in this study. The profile of the respondents on different demographic variables shows a mixed background of respondents. Reliability statistics reveals that data were fit for performing factor analysis. Factor analysis was performed on 30 variables from which four factors were extracted. The four factors are : (a) Enhancement in Quality of Food, Education, Shelter, and Health Services, (b) Enhancement in Monthly Income and Spending, (c) Enhancement in Decision Making Ability, and (d) Development of Personality. Correlation analysis shows that the data were fit for performing regression analysis. Regression analysis finds that all the four factors have an impact on uplifting of the social and economic status of women. Among all the factors, enhancement in monthly income and spending contributes most ; whereas, development in personality contributes least in the upgradation of the social and economic status of women.

Overall, the study has practical implications. In India, for poverty alleviation, upgrading the living standards and to empower women, microfinance services can be used by the government and NGOs. State and Central governments can come up with many microfinance based programmes which can help women to start micro enterprises. This can help women with earning opportunities, which can lead to increase in education, food, health, cloth-related expenses, and enhancement of their respective qualities. Further, it can empower women.

Practical and Managerial Implications

The findings of the study can be used to improve the living standards, reduce the level of poverty, and for empowering women. The study can help policy makers to adopt appropriate policies that integrate empowerment in development projects with women. The results of this research could encourage more women to participate in microfinance activities and development projects. The successful implementation of microfinance can lead to societal transformation in rural areas, especially for a country like India.

Limitations of the Study and the Way Forward

The study has two limitations. First, the study was conducted in two districts of North Gujarat region of the state of Gujarat. So, the outcome which is derived from the study may not be generalized for all the rural parts of India. Second, given the research methodology adopted in this study, one concern is whether the results can be generalized. Therefore, researchers are encouraged to test the proposed propositions further. The present study has scope for future research work in terms of evaluating the comparative effect of microfinance programme run by government and NGOs on poverty alleviation, uplifting living standards, and women empowerment.

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