

# Obstacle Probability Statistics of Women Empowerment

Shantanu Saurabh, Veenita Singh, Abhishek Kumar

**Abstract:** Women Empowerment is a strategy in which women challenge the existing norms and tradition, to effectively promote their wellbeing. The participation of women in Self-Help Group (SHGs) made a significant impact on their empowerment in both social and economic aspects. This study addresses women empowerment through SHGs in Uttar Pradesh.

**Index Terms:** Women Empowerment, Self-Help Groups (SHGs)

## I. INTRODUCTION

India is the second most populated country in the world after China, where 70% of the total population lives in rural areas and most of them are poor. The weaker section of the society is out of the reach of formal financial institutions for their need of finance. Therefore, need was felt for some alternative policies, systems, procedures, methods, strategy for an easy access of financial services to poor people, which resulted into the formation of informal financial institution i.e. "Microfinance" by Professor "Mohammad Yunus" The growing social awareness across the world has brought the number of issues, to which gender biasness and lack of women empowerment are significant. Women don't have equal status to that of men because of social tribulations i.e. violence against women, illiteracy, poverty, stumpy health position, lack of active involvement in family as well as in society, financial reliance on men, social backwardness (in regards with rules, regulation, custom, tradition of the society) etc. continue to be great concern for them. Discernment against women should be reduced by empowering them in every aspects of lifespan. Mahatma Gandhi states that the position of women in the society is an index of its civilization. "Train a man and you train an individual, Train a woman and you build a nation". Empowerment of women includes economic opportunity, property rights, political representation, social equality, personal rights, right to education, active participation in family, decision making and personality development and so on. This could be achieved through "Self Help Groups" which is one of the best strategies of microfinance for the empowerment of women thereby reducing the gender biasness in the society.

Poor and marginalized people lack facilities at individual level; thereby they organize themselves into a group for mutual and self- help called Self Help Group or in-short SHGs, which is now a well-known concept. SHGs model dominates microfinance in India. The principle of SHGs based on three words i.e. "by the people, of the people and for the people". It reveals the real participation of people's in the process of development at micro level. It's a small deliberate association of deprived people, preferably from the same socio-economic backgrounds for some common interest and benefits. Generally Self-Help Group consists of 15–20 members either women or men but not the mixed group. In India, more than 90% SHGs are formed by women.

## II. REVIEW OF LITERATURE

Jitendra Ahirrao (2009) has analyzed the role of National Agricultural Bank for Rural Development (NABARD) in working as a catalyst in promoting and linking SHGs to the banking system. He has observed that majority of the rural women who are associated with the SHG activity positively succeeded to gain them empowered. He has concluded that micro-finance programmes being promoted as a key strategy for addressing both poverty alleviation and women's empowerment. Pandey, Jatin and Rini Roberts (2011) and he concluded that the SHG could be effective only when ensuring the proactive involvement of the women with the changes in the social norms. Ramakrishna, et al (2013) studies is based on secondary data source and considered as the powerful instrument for women empowerment and eradication of poverty. The SHG bank Linkage has made an adventure in the economy by transforming the formal banking services to rural poor and needy people particularly women's group. Kondal (2014) SHGs Comprises very poor people who do not have access to formal financial institutions. It enables its members to learn to cooperate and work in a group environment. The study highlighted that there was a positive impact of Self Help Groups on Women empowerment in Andhra Pradesh. SHGs created greater confidence in social and economic self-reliance as a whole. study justifies the greater role played by the SHGs in increasing empowerment of women, by making them financially strong, as well as how it helped them to save money and invest it for further development. It is a tool to remove poverty and improve the women entrepreneurship and financial support for their activities in India.

## III. RESEARCH METHODOLOGY

Research methodology is treated as the way of handling and solving the



Revised Manuscript Received on May 06, 2019

**Dr. Shantanu Saurabh,** Assistant Professor in Institute of Management Studies, RGSC, Banaras Hindu University Uttar Pradesh, India

**Veenita Singh,** Assistant Professor in School of Management Sciences (SMS), Varanasi Uttar Pradesh, India

**Dr. Abhishek Kumar,** Assistant Professor, Computer Science at Banaras Hindu University Uttar Pradesh, India

problems of the specific topic undertaken by the researcher for systematic and sequential analysis in a scientific manner for proper and effective results. It comprises the multiple considerations of the determinants to be undertaken for better understanding and completing the entire process of research work.

**IV. RESEARCH OBJECTIVES**

To study the magnitude of relationship between SHGs and women empowerment in the state of Uttar Pradesh, in general and selected districts in particular.

To quantify the degree of relationship between microfinance availability and economic growth of women through SHGs.

To study the empowerment of women in decision-making power.

To study the enhancement of women in social independency.

To offer pragmatic suggestions for the effective functioning of SHGs in the State of Uttar Pradesh for improving the scenario of women empowerment.

**HYPOTHESES OF THE STUDY**

**H<sub>01</sub>:** There is no significant impact of SHGs on women empowerment in Uttar Pradesh.

**H<sub>02</sub>:** There is no significant improvement in the financial access and credit of women due to SHGs in the state of Uttar Pradesh.

**H<sub>03</sub>:** There is no significant improvement in decision-making power of the women in Uttar Pradesh.

**H<sub>04</sub>:** There is no significant improvement in social independency of the women in Uttar Pradesh.

**COVERAGE OF THE STUDY**

This research has put a bird’s eye view on the implication of SHGs, for women empowerment in the state of Uttar Pradesh. In Uttar Pradesh, there are 18 divisions, 75 districts, 822 blocks, 52,021 panchayats and 1, 07,452 villages. For the purpose of my study I have chosen 7 districts i.e. Ballia, Allahabad, Mirzapur, Varanasi, Lucknow, Ghaziabad and Jhansi. Among the 7 districts 4 have been taken from Purvanchal, which is the eastern part of U.P. comprising of Ballia, Allahabad, Mirzapur and Varanasi. Lucknow is the capital of Uttar Pradesh, and the major city of Awadh sub-division. Ghaziabad has been selected from western part of the Uttar Pradesh and Jhansi is in the southern part of the Uttar Pradesh, which lies in Bundelkhand part of the state. Due to limited time framework and resources 1,450 respondents were contacted, but only 1,000 was appropriate in all respects for evaluating the empowerment of women. In this way 450 filled questionnaires were found inaccurate, so these were rejected.

**SOURCES OF DATA INFORMATION**

For the purpose of collecting the adequate information both primary as well as secondary data will be collected for generating the evidence (data & information) in order to supplement the research for proper analysis of women empowerment in Uttar Pradesh through SHGs.

**RESEARCH INSTRUMENT & TOOL**

The summated rating scale technique or R C Likert’s scale

technique is used for collecting the opinion of the respondents, which normally applies to 5 point grading technique i.e. a) strongly agree b) agree c) indifferent d) disagree e) strongly disagree. The technique of Factor Analysis is used for testing the hypotheses for measuring the empowerment of women in Uttar Pradesh through SHGs.

**V. STATISTICAL ANALYSIS AND INTERPRETATION OF DATA**

To effectively evaluate the Empowerment of Women through SHGs, a structured questionnaire consisting 25 statements have been framed by me. The statements have been judged by the Likert’s five point rating scale. The Likert’s Scale assists in availing the different opinions of the respondents through numbers ranging between 1 to 5 thereafter all the opinions of the respondents were summed up for calculating the aggregate Women Empowerment Score (WES) for each respondents. . The factor analysis is a mathematical approach, which explains the correlation between large set of variables in terms of small number of underlying factors. The key concept of factor analysis is that, multiple observed variables have similar patterns of responses because they all are associated with latent variable (i.e. not directly measured).

For testing and evaluating the reliability and internal consistency of the researcher’s instrument to measure the empowerment of women, mathematical technique of Cronbach’s Alpha was used. “Reliability” means how well the test measures what it intends to measure. The alpha coefficient of reliability ranges from 0 to 1, where 0 indicates no correlation between the items in the scale and 1 indicates that there is correlation and covariance between the items in the scale. Generally the acceptable alpha coefficient ranges between 0.7 to 0.8; good alpha coefficient ranges between 0.8 to 0.9 (or higher in many cases leads to excellent) but not less than 0.5, which is unacceptable. The Cronbach’s Alpha value is calculated with the help of SPSS, and the value is summarized and given below in the table:

**TABLE: 1**  
**Reliability Statistics For Women Empowerment**

Cronbach’s Alpha	Number of Items
.701	25

As per the above table, the Cronbach’s Alpha value is 0.701 which means the instruments/scale developed (i.e. questions/statements in the questionnaire) by the researcher is reliable and internally consistent for measuring the empowerment of women. The derived alpha value is 0.701 which is more than 0.7 (the instrument is acceptable at this point for its reliability to measure what it intends to measure).So the scale constructed for measuring women empowerment is reliable.

Technique of factor analysis was applied which helps in reducing the large number of inter-related variables into manageable numbers by combining related variables into common factors. Before applying factor analysis technique, the adequacy of the sample for factor model needs to be tested by using Kaiser



Meyer Olkin (KMO).KMO is the measure of sampling adequacy, which ranges between 0 to 1. The values near to 1 are better and the value 0.5 is considered as minimum suggested level. The Bartlett's Test of Sphericity is the test for null hypothesis. These two tests will provide the minimum standard for application of factor analysis.

TABLE: 2  
KMO And Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.604
Bartlett's Test of Sphericity	Approx. Chi-Square	3.12153
	Df	325
	Sig.	.001

Normally KMO lies between 0 and 1. If  $KMO > 0.5$ , the sample is adequate. In my study the value of KMO is 0.604, which indicates that the sample is adequate and factor analysis technique can be applied. As it can be seen from the above table, that the null hypothesis is rejected because calculated value is less than alpha value ( $0.001 < 0.05$ ) at 5% level of significance. The approximate of Chi-square is 3.12153 with 325 degrees of freedom, which is significant at 0.05 level of significance. As per the above test results, factor analysis is considered as an appropriate technique for further analysis of the data.

For further analysis, Principle Component Analysis Method of Extraction and Varimax Method of Kaiser Normalization have been used. The Principle Component Analysis Method of Extraction helps in extracting out the major components/factors out of the 25 original variables through Eigen values  $\geq 1$ . The Eigen values are the variance of the factors. The Eigen value table has been divided into three sub-sections i.e. Initial Eigen Values, Extracted Sums of Squared Loading and Rotation of Sums of Squared Loading. For the purpose of analysis and interpretation, Extracted Sums of Squared Loading is considered as prominent one. The first factors will always account for high Eigen values due to presence of maximum variance in it; the next factor will have less variance in comparison to the first factor. Only those factors will be considered, which have Eigen value  $\geq 1$ . In the present research, 8 factors have been allocated through factor analysis that explains total variance of 57.708%. The Rotation of Sums of Squared Loading represents the distribution of variance by using Varimax Method of Kaiser Normalization. This method maximizes the variance of each factors extracted through extraction method. With reference of Table :3 ; On the basis of Varimax Rotation with Kaiser Normalisation, 8 factors have been extracted out of 25 original variables. Factors consist of only those variables, which have factor loading below (Table 3) 0.5. Varimax Rotation simplifies the process of interpretation because each factor has small number of large loadings and large number of small loadings on factors which are ignored at the time of analysis and interpretation. The rotated factor loadings represent the correlations between the variables and the factor.

With reference of Table :4 ; As per the Table : 4, matrix 8 core factors have been extracted out of the 25 variables. Generally every single variable is highly loaded in one factor and less loaded in others factor in each respective row. To

recognize the variables, incorporated in every factor, the variable having highest value in each row will be included in factors to which the variable is having maximum value. The List of the factors that were identified is given below in the table along with the variance in each factors starting from the maximum variance and moving toward the low variance and concluding it with the total variance accrued by all the factors.

As per the above Table :5, core factors have been extracted after rotation method of Varimax with Kaiser Normalization, which shows the empowerment of women in Uttar Pradesh through SHGs.

## VI. FINDINGS

As the value of KMO is 0.604, which indicates that the sample is adequate and factor analysis technique can be appropriately applied. The null hypothesis ( $H_{01}$ : There is no significant impact of SHGs on women empowerment in Uttar Pradesh) is rejected because calculated value is less than alpha value ( $0.001 < 0.05$ ) at 5% level of significance. The approximate of Chi-square is 3.12153 with 325 degrees of freedom, which is significant at 0.05 level of significance.

Eight core factors have been extracted after Rotation Method of Varimax with Kaiser Normalization, which maximizes the variance of each factors extracted through extraction method. In the present research, 8 factors have been allocated through factor analysis that explains total variance of 57.708. The individual variance of each factors are as follows:

**Improvement in Financial Access and Credit to Women** this factor amounts to maximum variance of 10.489% ( $H_{02}$ : There is no significant improvement in the financial access and credit of women due to SHGs in the state of Uttar Pradesh), **Social Independence** this factor amounts to total variance of 9.899% ( $H_{04}$ : There is no significant improvement in social independency of the women in Uttar Pradesh), **Participation in Decision-Making vis-a-vis Political Activities** this factor amounts to total variance of 8.168% ( $H_{03}$ : There is no significant improvement in decision-making power of the women in Uttar Pradesh), **Improvement in the Life Style** this factor amounts to total variance of 7.251%, **Improvement in Education** this factor amounts to total variance of 6.813%, **Improvement in Health/Sanitation Awareness** this factor amounts to variance of 5.777%, **Improvement in Assets and Properties** this factor amounts to total variance of 5.389% and **Building Self-Confidence Level** this factor amounts to total variance of 3.922%.

So, there is empowerment of women to the respective areas as reveal by the 8 factors calculated through factor analysis. However, differences exist among the factors which signify that women are empowering themselves but not with equity to all the factors. This particular fact indicates that there is women empowerment in the state of Uttar Pradesh but the discrimination lies which resulted in the inequitable distribution to the different parameters decided for the study.

TABLE: 3  
TOTAL VARIANCE EXPLAINED

Components	Initial Eigen Values			Extracted Sums of Squared Loadings			Rotation of Sums of Squared Loadings		
	Total	% Variance	% Cumulative	Total	% Variance	% Cumulative	Total	% Variance	% Cumulative
1	3.947	11.498	11.498	3.947	11.498	11.498	3.111	10.489	10.489
2	2.728	9.567	21.065	2.728	9.567	21.065	2.236	9.899	20.388
3	2.101	7.535	28.600	2.101	7.535	28.600	2.159	8.168	28.556
4	1.872	6.457	35.057	1.872	6.457	35.057	1.816	7.251	35.807
5	1.775	6.315	41.372	1.775	6.315	41.372	1.705	6.813	42.620
6	1.690	5.989	47.361	1.690	5.989	47.361	1.616	5.777	48.397
7	1.465	5.559	52.920	1.465	5.559	52.920	1.519	5.389	53.786
8	1.273	4.788	<b>57.708</b>	1.273	4.788	<b>57.708</b>	1.485	3.922	<b>57.708</b>
9	.987	4.535	62.243						
10	.973	4.113	66.356						
11	.930	3.989	70.345						
12	.905	3.685	74.030						
13	.898	3.338	77.368						
14	.874	3.111	80.479						
15	.733	2.859	83.338						
16	.712	2.546	85.884						
17	.695	2.453	88.337						
18	.686	2.212	90.549						
19	.612	2.009	92.558						
20	.570	1.755	94.313						
21	.534	1.749	96.062						
22	.506	1.715	97.777						
23	.495	1.112	98.889						
24	.486	1.313	99.920						
25	.413	0.080	100.000						

Extraction Method: Principal Component Analysis

**TABLE: 4**  
**ROTATED COMPONENT MATRIX<sup>a</sup>**

	Component							
	1	2	3	4	5	6	7	8
Physical properties like livestock, jewellery, etc.	-.107	-.059	.191	-.148	.239	-.078	.789	.076
Easy approach and access to financial institutions	.989	.266	.405	.132	-.032	.161	.273	-.089
Increase in employment opportunity	.029	.478	.367	.896	.000	-.101	-.063	.145
Enhancement in annual income	.368	.213	.000	.756	.123	.412	-.078	-.111
Savings habit and capital formation	.914	-.089	.154	.341	-.168	.188	-.172	.123
Involvement in managing the budget	.421	.367	.834	-.054	-.145	-.054	-.145	-.054
Active participation in decision-making in society and family	.217	.313	.712	.487	-.054	-.145	.291	-.066
Easy access to market	-.089	.806	.000	-.101	-.063	.368	.213	.000
Improvement in confidence level	-.172	.123	.487	-.054	-.145	.154	.341	.589
Participation in community programmes and events	.000	.749	.456	-.289	.154	.341	-.168	-.450
Increase in tourism activity	.129	.699	.348	.415	.222	-.098	-.432	-.167
Swachh Bharat Abhiyan	-.098	-.191	-.148	.491	.219	.788	.000	.209
Enhancement in girl education	.378	-.178	.244	.000	.865	.213	-.056	.312
Frequency of nutritional diets	.154	.341	-.168	.816	.412	-.078	-.111	.209
Helping and motivating others at the time of need	-.045	-.098	-.178	.244	.000	.409	.217	.734
Self-respect and independency in personal life	-.178	.978	.377	.188	.188	-.172	.123	-.033
Family literacy	.487	-.054	-.145	.291	.719	.487	-.054	-.145
Easy access to credit	.839	.341	-.168	.188	.244	.000	.409	-.178
Freedom from social bounding like pardha system, child marriage , male child, widow marriage etc	.188	-.172	.123	.842	-.289	.154	.341	-.168
Curtailement of money lenders and exploitation	.918	.340	-.089	.154	.341	-.168	.188	-.172
Political activism	.409	.188	.891	-.172	.188	-.289	.154	.341
ATM and Bank Account	-.054	-.145	.333	.400	-.066	.209	.878	-.013
Health Consciousness	-.054	-.145	-.054	.145	-.054	.729	.267	.416
Access to schools, colleges without any hindrance	.134	-.333	.000	-.234	.844	.434	.069	.188
Moveable and immoveable properties	.154	.341	-.168	-.172	.123	.245	.690	.387

Extraction Method: Principal Component Analysis Rotation Method: Varimax with Kaiser Normalization.a Rotation converged in 9 iterations.

**TABLE: 5**  
**WOMEN EMPOWERMENT FACTORS**

S.No.	Women Empowerment Factors	Variables included in each Factors	Factor Loading	Variance	Cumulative Variance
1	Improvement in Financial Access and Credit	Easy approach and access to financial institutions Savings habit and capital formation Easy access to credit Curtailement of money lenders and exploitation	.989 .914 .839 .918	10.489	10.489
2	Social Independence	Easy access to market Participation in community programmes and events Increase in tourism activity Self-respect and independency in personal life	.806 .749 .699 .978	9.899	20.388
3	Political/ Participation in Decision-Making	Involvement in managing the budget Active participation in decision-making in society and family Political activism	.834 .712 .891	8.168	28.556
4	Improvement in the Life Style	Increase in employment opportunity Enhancement in annual income Frequency of nutritional diets Freedom from social bounding like pardha system, child marriage , male child, widow marriage etc	.896 .756 .819 .842	7.251	35.807
5	Improvement in Education	Enhancement in girl education Family literacy Access to schools, colleges without any hindrance	.865 .719 .844	6.813	42.620
6	Improvement in Health/Sanitation Awareness	Swachh Bharat Abhiyan Health Consciousness	.788 .729	5.777	48.397
7	Improvement in Assets and Properties	Physical properties like livestock, jewellery, etc. ATM and Bank Account Moveable and Immoveable properties	.789 .878 .690	5.389	53.786
8	Building the Confidence Level	Improvement in confidence level Helping and motivating others at the time of need	.589 .734	3.922	57.708

## VII. SUGGESTIONS FOR IMPROVEMENT IN SHGs OF UTTAR PRADESH

In nut shell, it can be said that the overall performance of SHGs was remarkable, as it is one of the largest micro-financing programme in the world under the guidance and support of NABARD for including the financially excluded marginalized people thereby eradicating the poverty & creating employment opportunities for them. Although, the different parameters under study reveal that women empowerment has been possible in considerable way in Uttar Pradesh but in some other states, there has been better understanding and implementation of SHGs for empowerment of women. So as a researcher, following steps are suggested for the accelerated growth of SHGs for bringing the inclusive empowerment of women working in the state of Uttar Pradesh:

1. Self-Employed Women's Association (SEWA) should be promoted to all the districts of U.P. for bringing the overall improvement in the empowerment of women in Uttar Pradesh.
2. Grameen Bank Model should be adopted and implemented specially in the Purvanchal (East U.P.) and Bundelkhand, which are the most backward zones of U.P.
3. It is suggested to establish various resource centres on the pattern of Andhra Pradesh MahilaAbhivruddhi Society (APMAS) in various parts of our country in general and Uttar Pradesh in particular.
4. SHGs women should be actively made aware about the existence of various ICT tools; in the development and empowerment of their livelihood, through short films and documentaries in television.
5. The procedures involved in the formation of SHGs and linking it to the bank should be simplified with increase in initial amount of loan for the upgradation and development of marginalized section of the society through expert advice and opinions from technical persons.
6. Government along with NGOs and other Organization can do a lot by providing effective marketing facilities and techniques with proper infrastructure to the members of SHGs for advertising their products, so as to fetch the good returns for their business.
7. Government not only frame policies but make it sure that people are aware about it existence and approachable applicability for deriving the optimum benefit of it.
8. Effective training programs need to be conducted and organized from time to time for imparting quality knowledge so as to develop the SHGs members in diverse areas for managing the activities of business effectively.
9. Women SHGs need to be given special training for managing professional as well as personal life effectively, so as to reduce the conflicts among women SHGs.
10. It is the need of the hour to educate the illiterate members of the SHGs in a minimum time frame, as the uneducated members creates several hurdles in the operation & working of SHGs effectively.

## CONCLUSION

The position of women is not appropriate in many

countries to which India is not an exception. So, SHGs are acting as a bridge between have and have not sections of the society. The pace of SHG movement is not similar in all the countries simultaneously due to lack of adequate programmes and support from Government of different countries. India lacks behind in regards to success and progress of SHGs in comparison to developed countries. Even in India there is disparity in growth of SHGs as Andhra Pradesh, Tamil Nadu, Maharashtra, West Bengal, Karnataka etc. are the states where SHGs are performing immensely good whereas Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh are the states where SHGs are performing but not up to satisfactory level. SHGs help in creating favourable environment for inspiring and empowering the women in order to make them self-independent. Women in Uttar Pradesh have not been benefitted at a remarkable level through SHGs, but no doubt, there is improvement in the condition of women after joining the SHGs. There is no confusion at all in regards to acceptance gained by SHGs as an alternative of formal credit delivery system for meeting the credit requirements of marginal people, the poorest of poor part of the society. There are numerous hurdles, coming in the smooth flow of SHG movement in U.P. that is why it comes under the category of BIMARU states of India. If the Government of India and the Government of various states work together in co-ordinated way for removing the shortcomings, coming in the path of SHGs, it can immensely creep the positive impact & progress of SHGs in the nation by regulating and monitoring the work of SHGs in those states where it is lacking behind. Empowerment of women has improved tremendously; still the hope of getting the best results of empowerment is yet to come by unleashing the uncovered area for women empowerment. It is women who manage the family and if every woman in the family is empowered, it will automatically develop the entire nation and the society by generating employment and eradicating the poverty.

## REFERENCES

1. Jitendra Ahirrao (2009): "Rural Women Empowerment through Micro-finance" Kurukshetra, Vol.52 (4) February, 2009; PP. 23-25.
2. Sasikumar.D Women Self Help Groups in Tamil Nadu, Readers Shelf, Vol-6, No-2, 2009, pp.3-42.
3. Janagan, J. E. Empowerment of women Through Self-Help Groups in India. Cauvery Research Journal, 2011 pp 95-102.
4. Ganapathi, R. and Murugesan, J. (2011): "Impact of Micro Finance on Economic Status of Members of the Self help Groups", GITAM Journal of Management, Vol.9; No.1, Jan-March 2011; PP. 25-45.
5. Sudarshan, G. (2011): "Impact of Women Self-help Groups in the Economic Development of Andhra Pradesh-A Study", Financing Agriculture, Vol. 43; Issue- 2; Feb-2011; PP. 25-29.
6. Pandey, Jatin and Rani Roberts (2011): a study of empowerment of rural women through self help group. Abhinav: national monthly refereed journal of research in commerce and management. Vol. 1. No. 8. 2011.
7. Tripathy, KK and Jain, Sudhir K (2011): Income impact of micro enterprises finance: An empirical study on government initiatives in rural India. International journal of rural management. Vol. 7, No.1&2, 2011, P. 5-26.
8. Muniyandi, M., & Singh, N. Empowerment of Tribal Women for Health Development: An Indian Perspective. Tribal Health Bulletin, 2012 pp 43-58.

9. Rajamani, B., & Prasad, M. J. Women Empowerment through Self Help Groups-a Study with Special Reference to Thiruvannamalai District. Indian Streams Research Journal, 2012 pp1-9.
10. Kumar, A., Vengatesan, K., Rajesh, M., Singhal, A. 57205678507; 55611316200;56606891300; 24765540900; Teaching literacy through animation & multimedia (2019) International Journal of Innovative Technology and Exploring Engineering, 8 (5), pp. 73-76.
11. Ramakrishna, H, et al (2013): Performance of Self-Help-Group-Bank Linkage Programme (SBLP) in India: An Analytical Study. Tactful Management Research Journal .Vol.1, No.10, July 2013.
12. Abhishek Kumar, Achintya Singhal, Jitendra Sheetlani “ESSENTIAL-REPLICA FOR FACE DETECTION IN THE LARGE APPEARANCE VARIATIONS”, International Journal of Pure and Applied Mathematics, volume 118, Issue 20, Pages: 2665-2674
13. Kondal, K. Women Empowerment through Self Help Groups in Andhra Pradesh, India. International Research Journal of Social Sciences, 2014 pp13-16.
14. Selvaraj Kesavan, E. Saravana Kumar, Abhishek Kumar & K. Vengatesan (2019) An investigation on adaptive HTTP media streaming Quality-of-Experience (QoE) and agility using cloud media services, International Journal of Computers and Applications, DOI:10.1080/1206212X.2019.1575034

### AUTHORSPROFILE



**Dr. Shantanu Saurabh** is Life Member of number of bodies including Indian Association of Management Development, All India Commerce Association & All India Accounting Association. His area of interest includes International Finance, Financial Management, Rural Development & Marketing Management. Presently, he is engaged as Assistant Professor in Institute of Management Studies, RGSC, Banaras Hindu University.



**Veenita Singh** is the Life member to the number of Association that comprises of Indian Association of Management Development, All India Commerce Association and All India Accounting Association. Presently, she is working as Assistant Professor in School of Management Sciences (SMS), Varanasi. Her academic area of interest includes Financial Management, Auditing, Business Organization, Financial Inclusion and Marketing Management.



**Dr. Abhishek Kumar** is Assistant Professor, Computer Science at Banaras Hindu University. He is Apple Certified Associate, Autodesk Certified & Adobe Certified Educator. His research interests is Stereoscopy, 3D Animation, Image Processing, VR & AR, Multimedia, Game Technology, MOOCs, Graphics & Visual Effects.