The Role of Microfinance to address Poverty Alleviation and Women Empowerment in Kerala, India

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Abstract

The alleviation of poverty and the empowerment of women are crucial elements for fostering a harmonious and integrated family life, as well as driving the economic advancement of a nation. Across the globe, various countries have taken proactive steps to promote women's empowerment and combat poverty. The empowerment of women involves improvements in various aspects of a woman's life, such as personal, economic, and social dimensions. Microfinance has become an effective strategy for addressing these challenges in several nations, including India. Kudumbashree is a notable example of a successful microfinance institution in the Indian state of Kerala. This research seeks to evaluate how Kudumbashree has impacted and addressed socio-economic obstacles concerning the empowerment of women in Kerala. A statistical analysis, assessing the hypothesis that Neighbourhood group (NHG) has positively influenced to improve the social and personal aspects of women's life proved to be acceptable. The results of this study indicated that as women get empowered the economic and social challenges are mitigated.

Keywords: Microfinance, Poverty Reduction, Kudumbashree, Women empowerment.

Overcoming poverty is one of the major challenges for any developing country. India is not different, albeit rich in other aspects like culture, knowledge, and values. One in five Indians is poor. 80 % of India's poor population resides in its rural areas (Chatterjee et al., 2016). As per The World poverty clock statistics January 2019, about 872.3 million (million = 106) people of the world's population live in conditions below the poverty line. India has the third highest population of extremely poor people(Braithwaite & Mont, 2009) after Nigeria and Congo (S. Chen et al., 2018). 49.2 million of Indian population live in extreme poverty.The Indian government has been making efforts to elevate individuals below the poverty line by implementing a range of developmental initiatives. (Pachauri & Spreng, 2011). Microfinance is one such program offered to small business owners and entrepreneurs, who do not have access to traditional sources of finance - banks or investors.

Microfinance provides access to modest loans in the form of credit, along with insurance and savings options, acting as essential capital for individuals and small businesses(Durgalashmi et.al 2020).Dr. Muhammad Yunus, who was bestowed the Nobel Peace Prize for initiating the concepts of microfinance and the Grameen bank, validated microfinance as one of most efficient and effective tools to fight against poverty (Sengupta

& Aubuchon, 2008). The microfinance sector is intricate and innovative, presenting significant potential to extend financial accessibility to underserved populations in a sustainable manner(Barpanda & Mukhopadhyay, 2016). The goal of microcredit is to provide impoverished individuals with an opportunity to attain and maintain self-sufficiency(Durgalashmi et.al 2020). On a global scale, microfinance has proven to be a successful model for empowering marginalized and vulnerable communities. Typically, women constitute a significant portion of the participants. Engaging in microfinance often leads to improved employability, income generation, financial inclusion, and in favorable instances, empowerment of women(Maity, 2023).The microfinance sector has grown swiftly, over the past few decades worldwide (Rhyne & Otero, 2006). Microfinance Institutions (MFIs) in India conduct business as Non-Banking Financial Companies (NBFCs), NGOs (registered as societies or trusts), and Section 25 companies (Balasubramanian et al., 2012). Microfinance institutions in India are regulated by National Bank for Agriculture and Rural Development (NABARD), which is the primary development financial institution in India (Satish, 2005). The Kudumbashree mission is a Government-sponsored microfinance system, launched in May 1998, to create a base of community organizations of women, state-wide, that work with local self-governments for empowerment of women, and eradication of poverty, in Kerala (Williams et al., 2011). Kudumbashree is a unique microfinance model followed in Kerala. Kudumbashree's approach to identifying impoverished individuals is considered more effective than the traditional head count ratio. It comprehensively considers various dimensions of poverty, reducing the likelihood of excluding vulnerable families(Deepika & Sigi, 2014).The objective of this paper was to evaluate the effect of Kudumbashree for poverty reduction and women empowerment, concerned with social and economic aspects of their life.

Social empowerment involves fostering self-confidence and taking collective and individual actions to transform social dynamics. (Schaurhofer & Peschl, 2005). Economic empowerment is about helping poor people gain the knowledge, skills, and resources they need to improve their economic well-being and achieve their goals. It goes beyond simply meeting basic needs to include having the ability to make choices about one's life and future.(J. Chen et al., 2017).

Literature Review

In any country, social development could be achieved only through economic development of common people (Davis, 2002). Microfinance institutions play a significant role in helping financial inclusion of common people, as they are typically reach out to the poor people living in rural area (NABARD, 2008). Microfinance programs in India need to adopt an institutional based lending approach, to achieve a balanced regional development. (Laha & Kuri, 2012). Non-banking financial companies, NGOs, cooperative banks, rural banks and credit unions are the typical institutions which provide microfinance services in India.(Kaur, 2016).

Microfinance is one of the most widely utilized strategies for both empowerment and poverty reduction in developing nations. Conceptually, microfinance is closely aligned to the social work profession, as it is conceived to help deprived families and individuals, globally. Social work tackles the social and economic challenges faced by disadvantaged populations on a daily basis, encompassing issues like limited access to affordable financial resources, unemployment, lack of opportunities, and poverty. In this context, microfinance is a focal point within the mission of social work, aiming to advance social change, promote liberation for individuals, and empower women, ultimately enhancing their overall well-being. (International Federation of Social Workers [IFSW], 2014) (Widyaningrum et al., 2017).

Empowerment of women is another key element for the social development(Mahmood, 2011).

In Sen's Bargaining Model, a woman's social well-being is defined by her capabilities, which encompass independence, equitable access to household resources, and influence over decision-making within the family (AK, 1990). Enhancing women's economic development results in an improved standard of living within the family, enabling them to support the educational and healthcare requirements of their children (Kalyani, 2012). Access to economic resources through credit and savings is seen as a facilitator for women to attain a higher social standing within their community and family. In India, the self-help group (SHG) model in microfinance has gained widespread acceptance. This model involves providing loans to groups of women without requiring collateral, facilitated in collaboration with banks. (Chakrabarti, 2011). The NABARD started a new venture known as Self-Help Group Bank Linkage Program (SBLP) to extent the micro-finance through SHGs, by linking them to commercial banks(Harper, 2002). This linkage program, between a commercial bank and SHG, has proved to be an upright model for extension of the microfinance into the rural sector (Pethiya & Surayya, 2004). Under this scheme, a women has greater chance to be socially empowered, if she is a member of a Self-Help Group (SHG) for a longer period (Sahu,2015).Participation in Self-Help Groups (SHGs) leads to increased social inclusion compared to individuals who do not participate.

Research has indicated that women participating in microfinance programs, as opposed to non-members, have shown a notable increase in empowerment (Swain & Wallentin, 2009). Microfinance model has been resourceful to reduce multigenerational poverty in different countries of the world (Garrity & Martin, 2018).

The primary objective of the Kudumbashree program is to elevate the quality of life for impoverished women residing in rural areas. (Nidheesh, 2009).

Methodology

This study is to probe the effectivity of microfinance institution named Kudumbashree on reduction of poverty among women NHG members in Kerala. The type of research used in this study is descriptive and exploratory in nature. The primary data pertaining to different aspects of performance of NHG members were collected through the schedule, group discussion with members of NHG, Area Development Society (ADS), Community Development Societies (CDS) and through observation. A total of 300 samples were collected from two taluks in three districts (Kollam, Ernakulam, Kozhikode) from Kerala, India. From Kollam district two taluks were selected - Karunagappally and Kollam; taluks selected from Ernakulam district - Muvattupuzha and Kunnathunad; Kozhikode district, the two taluks selected were Kozhikode and Thamarassery. Though the respondents were divided based on their geographical location for fair representation of data, stratified random sampling is used here as the sampling technique. The research population considered for this study are the office bearers of individual neighbourhood groups. Secondary data related to general aspects of MFI institutions were collected from books, journals, records of financial institutions. Since the objective of the study was systematic identification of relationship between the outcome of neighbourhood groups activities (dependent variable) and other measurable parameters related to the performance of the groups, statistical methods like regression analysis, student's t-tests and Cohen's d were used to analyse the data.

Data Analysis and Results

SPSS software is used for statistical analysis of the data.

4.1 Analysis for poverty reduction: To evaluate the effect of the performance of Kudumbashree to reduce the poverty of NHG members, a study has been conducted using three different regression models. Model 1: How many

members in an NHG group have moved from Below Poverty Line (BPL) to Above Poverty Line (APL).

Model 2: Minimum percentage of increase in income of NGH members after joining the group. Model 3: Improvements in living standards of group members. Each proposed model has been tested with five different hypotheses relevant to the study.

Model 1: Effect of Kudumbashree for shift from BPL to APL

Poverty reduction approaches of an MFI should reflect in the shift of NHG members from below poverty line (BPL) to above poverty line (APL). In this model, the effect of different aspects of Kudumbashree used to reduce the poverty were statistically analysed based on the hypothesis listed in table 1. The aspects considered for this study were ED Training programs, Amount of loan sanctioned for the groups, Women empowerment initiatives, Income generating activities of NHGs, Average rate of profit from the indirect sale of the products which are the independent variables for the statistical analysis. The dependant variable for the analysis is the number of NHG members shifted from BPL to APL.

Table 1: Proposed Hypotheses for Model 1(M1)

No	Premise or Proposition of Hypotheses
M1.H1	Entrepreneurial development training programs have an influence to move NHG members from BPL to APL.
M1.H2	The amount of loan sanctioned for the group has an influence to move NHG members from BPL to APL.
M1.H3	Women empowerment initiatives have an influence to move NHG members from BPL to APL.
M1.H4	Income generating activities of SHGs have an influence to move NHG members from BPL to APL.
M1.H5	Average rate of profit from the indirect sale of the products have an influence to move NHG members from BPL to APL.

The regression analysis with the afore mentioned dependent and independent variables supported an R^2 value of 0.666. It indicated that around the incorporated independent variables explained a variance of 66 % on the dependent variable.(Table 2)

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.666[a]	0.443	0.432	1.007

Predictors: ED Training programs, Amount of loan sanctioned for the groups, Women empowerment initiatives, Income generating activities of NHGs, Average rate of profit from the indirect sale of the products

Table 3: ANOVAa

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	197.113	5	39.423	38.883	.000[b]
	Residual	247.387	294	1.014		
	Total	444.500	299			

Dependent Variable: Total number of NHG members shifted from BPL to APL
Predictors: ED Training programs, Amount of loan sanctioned for the groups, Women empowerment initiatives, Income generating activities of NHGs, Average rate of profit from the indirect sale of the products

Table 4: Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.886	0.385		4.893	0
ED Training programs	0.303	0.065	0.327	4.694	0

Average rate of profit from the indirect sale of the products	0.146	0.06	0.155	2.419	0.016
Women empowerment initiatives	0.182	0.058	0.198	3.128	0.002
Income generating activities of NHGs	0.111	0.065	0.129	1.711	0.088
Amount of loan sanctioned for the groups	-0.01	0.064	-0.012	-0.164	0.87

Dependent Variable: Total number of NHG members shifted from BPL to APL

As depicted in Table 3, the examination of the model also indicated that all these variables together work as a significant predictor of Dependent Variable that total number of NHG members shifted from BPL to APL (F [5,299] = 38.88, p < 0.01). The study postulated in hypothesis M1.H1 that ED training programs have an influence on dependent variable that is total number of NHG members shifted from BPL to APL. In support with this, the study found significant results (β = .303, p < 0.01). Thus, the study found support for the significance of hypothesis M1.H1.

Next, the study postulated the hypothesis (M1.H2) that the amount of loan sanctioned to the group has a positive effect on the dependent variable which is total number of NHG members shifted from BPL to APL. The regression results supported an insignificant estimate (β = -010, p > 0.01). Thus, the study rejected hypothesis M1.H2, and inferred that there is no influence of loan sanctioned to the group on Dependent Variable that total number of NHG members shifted from BPL to APL.

Further, it was also postulated that Women empowerment initiatives have an influence on Dependent Variable that total number of NHG members shifted from BPL to APL. In support with this, the study supported positive and significant regression estimate (β = .182, p < 0.01). Thus, the study supported the postulation (hypothesis M1.H3) and inferred that women empowerment initiatives do have an influence on the number of NHG members shifted from BPL to APL.

In addition, it was also postulated that Income generating activities of NHGs on Dependent Variable that total number of NHG members shifted from BPL to APL. In the study postulation, the study results found a significant regression estimate (β = .111, p < 0.01). Thus, the study found support for hypothesis M1.H4, and inferred that income generating activities do influence Dependent Variable that total number of NHG members shifted from BPL to APL.

It was also postulated Average rate of profit from the indirect sale of the products on Dependent Variable that total number of NHG members shifted from BPL to APL. In support with this postulation (hypothesis M1.H5), the study results supported significant path estimate (β = .146, p < 0.01). Thus, the study supported the hypothesis and inferred that average rate of profit from the indirect sale of the products has an influence on Dependent Variable that total number of NHG members shifted from BPL to APL.

Model 2: Effect of Kudumbashree on Minimum percentage of increase in income of members after joining the NHG

Poverty reduction approaches of an MFI should reflect on minimum percentage of increase in income of NHG members after joining the Kudumbashree. In this model, the effect of different aspects of Kudumbashree used to reduce the poverty were statistically analysed. The aspects considered for this study were ED Training programs, Amount of loan sanctioned for the groups, Women empowerment initiatives, Income generating activities of NHGs, Average rate of profit from the indirect sale of the products which are the independent variables for the statistical analysis. The dependant variable for the analysis is minimum percentage of increase in income of NHG members after joining the Kudumbashree.

Table 5: Proposed Hypotheses for Model 2(M2)

No	Premise or Proposition of Hypotheses
M2.H1	Entrepreneurial development training programs have an influence to move NHG members from BPL to APL.
M2.H2	The amount of loan sanctioned for the group has an influence to move NHG members from BPL to APL.
M2.H3	Women empowerment initiatives have an influence to move NHG members from BPL to APL.
M2.H4	Income generating activities of SHGs have an influence to move NHG members from BPL to APL.
M2.H5	Average rate of profit from the indirect sale of the products have an influence to move NHG members from BPL to APL.

The regression analysis (in Model 2) with the dependent and independent variables supported an R2 of 0.658. It indicated that around the incorporated independent variables explained a variance of 65 % on the dependent variable. (See Table 6).

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.658[a]	0.433	0.421	1.069

Predictors: ED Training programs, Amount of loan sanctioned for the groups, Women empowerment initiatives, Income generating activities of NHGs, Average rate of profit from the indirect sale of the products

Table 7: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	212.794	5	42.559	37.244	.000[b]
	Residual	278.822	294	1.143		
	Total	491.616	299			

Dependent Variable: Minimum percentage of increase in income of NHG members after joining the NHG.
Predictors: ED Training programs, Amount of loan sanctioned for the groups, Women empowerment initiatives, Income generating activities of NHGs, Average rate of profit from the indirect sale of the products

Table 8: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.963	0.409		4.796	0
ED Training programs	0.136	0.068	0.14	1.993	0.047
Average rate of profit from the indirect sale of the products	0.204	0.064	0.206	3.182	0.002
Women empowerment initiatives	0.217	0.062	0.08	3.12	0
Income generating activities of NHGs	0.215	0.069	0.237	3.105	0.002
Amount of loan sanctioned for the groups	0.195	0.067	0.205	2.885	0.004

Dependent Variable: Mminimum percentage of increase in income of NHG members after joining the NHG.

As depicted in Table 7, the examination of the model reveals that all these variables together work as a significant predictor of Dependent Variable minimum percentage of increase in income of NHG members after joining the NHG (F [5,299] = 37.24, p < 0.01).

The study postulated in hypothesis M2.H1 that ED Training programs have an influence on Dependent Variable minimum percentage of increase in income of NHG members after joining the NHG. In support with this, the study found significant results (β = 0.136, p < 0.05). Thus, the study found support for the significance of hypothesis M2.H1.

Next, the study postulated that (M2.H2) the amount of loan sanctioned to the group on the Dependent Variable minimum percentage of increase in income of NHG members after

joining the NHG. The regression results supported a significant estimate ($\beta = 0.195$, p < 0.01). Thus, the study supported hypothesis M2.H2, and inferred that there is an influence of loan sanctioned to the group on Dependent Variable minimum percentage of increase in income of NHG members after joining the NHG. Further, it was postulated that women empowerment initiatives have an influence on Dependent Variable minimum percentage of increase in income of NHG members after joining the NHG. In support with this, findings of the study supported positive and significant regression estimate ($\beta = 0.217$, p < 0.01). Thus, the study supported the postulate M2.H3 and inferred that women empowerment initiatives do influence on Dependent Variable minimum percentage of increase in income of NHG members after joining the NHG.

In addition, it was postulated that Income generating activities of NHGs on Dependent Variable minimum percentage of increase in income of NHG members after joining the NHG. In the study, the study results found a significant regression estimate ($\beta = 0.215$, p < 0.01). Thus, the study found support for hypothesis M2.H4, and inferred that income generating activities do influence on Dependent Variable minimum percentage of increase in income of NHG members after joining the NHG.

It was also postulated Average rate of profit from the indirect sale of the products on Dependent Variable minimum percentage of increase in income of NHG members after joining the NHG. In support with this postulation (hypothesis M2.H5), the study results supported significant path estimate ($\beta = 0.204$, p < 0.01). Thus, the study supported the hypothesis and inferred that average rate of profit from the indirect sale of the products has an influence on Dependent Variable minimum percentage of increase in income of NHG members after joining the NHG.

Model 3: Improvements in living standards of NHG members

Poverty reduction approaches of an MFI should reflect improvements in living standards of NHG members after joining the Kudumbashree. In this model 3, the effect of different aspects of Kudumbashree used to reduce the poverty were statistically analysed. The aspects considered for this study were ED Training programs, Amount of loan sanctioned for the groups, Women empowerment initiatives, Income generating activities of NHGs, Average rate of profit from the indirect sale of the products which are the independent variables for the statistical analysis. The dependant variable for the analysis is minimum percentage of increase in income of NHG members after joining the Kudumbashree.

Table 9: Proposed Hypotheses for Model 3

No	Premise or Proposition of Hypotheses
M3.H1	Entrepreneurial development training programs have an influence to move NHG members from BPL to APL.
M3.H2	The amount of loan sanctioned for the group has an influence to move NHG members from BPL to APL.
M3.H3	Women empowerment initiatives have an influence to move NHG members from BPL to APL.
M3.H4	Income generating activities of SHGs have an influence to move NHG members from BPL to APL.
M3.H5	Average rate of profit from the indirect sale of the products have an influence to move NHG members from BPL to APL.

The regression analysis (in Model 3) with the aforementioned dependent and independent variables supported an R^2 of 0.688. It indicated that around the incorporated independent variables explained a variance of 68% on the dependent variable that is there is improvements in living standards of NHG members after joining the Kudumbashree (See Table 10).

Table 10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.688[a]	0.473	0.462	1.082

Predictors: ED Training programs, Amount of loan sanctioned for the groups, Women empowerment initiatives, Income generating activities of NHGs, Average rate of profit from the indirect sale of the products

Table 11: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	256.497	5	51.299	43.781	.000[b]
	Residual	285.903	294	1.172		
	Total	542.4	299			

Dependent Variable: Improvements in living standards of NHG members after joining the NHG.
Predictors: ED Training programs, Amount of loan sanctioned for the groups, Women empowerment initiatives, Income generating activities of NHGs, Average rate of profit from the indirect sale of the products

Table 12: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.036	0.414		2.5	0.013
ED Training programs	0.176	0.069	0.173	2.545	0.012
Average rate of profit from the indirect sale of the products	0.167	0.065	0.16	2.57	0.011
Women empowerment initiatives	0.056	0.022	0.055	2.9	0
Income generating activities of NHGs	0.182	0.07	0.191	2.598	0.01
Amount of loan sanctioned for the groups	0.26	0.068	0.261	3.808	0

Dependent Variable: Improvements in living standards of NHG members after joining the NHG.

As depicted in Table 11, the examination of the model also indicated that all these variables together work as a significant predictor of improvements in living standards of NHG members after joining the NHG (F [5,299] = 43.78, p < 0.01).

The study postulated in hypothesis M3.H1 that ED Training programs has an influence on improvement in living standards of NHG members after joining the NHG. In support with this, the study found significant results (β = .176, p < 0.05). Thus, the study found support for the significance of hypothesis M3.H1.

Next, the study postulated that (M3.H2) the amount of loan sanctioned to the group on the improvement in living standards of NHG members after joining the NHG. The regression results supported a significant estimate (β = .056, p < 0.01). Thus, the study supported hypothesis M3.H2, and inferred that there is an influence of loan sanctioned to the group on improvement in living standards of NHG members after joining the NHG.

Further, it was also postulated that women empowerment initiatives have an influence on improvement in living standards of NHG members after joining the NHG. In support with this, the study supported positive and significant regression estimate (β = 0.056, p < 0.01). Thus, the study supported the postulation (hypothesis H3) and inferred that women empowerment initiatives do influence improvement in living standards of NHG members after joining the NHG.

In addition, it was also postulated that Income generating activities of NHGs on improvement in living standards of NHG members after joining the NHG. In the study postulation, the study results found a significant regression estimate ($\beta = 0.182$, $p < 0.05$). Thus, the study found support for hypothesis M3.H4, and inferred that income generating activities do influence improvement in living standards of NHG members after joining the NHG.

It was also postulated Average rate of profit from the indirect sale of the products on improvement in living standards of NHG members after joining the NHG. In support with this postulation (hypothesis M3.H5), the study results supported significant path estimate ($\beta = 0.167$, $p < 0.01$). Thus, the study supported the hypothesis and inferred that average rate of profit from the indirect sale of the products has an influence on improvement in living standards of NHG members after joining the NHG.

4.2 Analysis for women empowerment

In this section, the study analysed an important question: whether the activities of the NHGs are effective in facilitating women empowerment in Kerala. To examine the effectiveness the study assessed the effectiveness from 10 different perspectives noted as follows: The following 10 Hypothesis were analysed to know NHG is effective in facilitating women empowerment in Kerala.

Table 13: Proposed Hypotheses for women empowerment (M2)

No	Premise or Proposition of Hypotheses
W1H1	NHG provide financial support
W2.H2.	NHG can be helpful for building self-respect
W3.H3	Women come together and discuss their problems and raise voice against social exploitation
W4.H4	Ready to accept risk for income generation
W5.H5	They are getting importance as regards decision making in their family affairs after becoming an earning member of NHG?
W6.H6	Do married women members give importance of education for their children
W7.H7	After joining NHG money saving is possible for them
W8.H8	NHG is helpful for asset building
W9.H9	NHG is helpful generating income
W10.H10	They are able to manage their family independently due to self confidence.

During the data analysis, the study used 10 different one sample t-tests to analyse the effectiveness of NHGs, to enable women empowerment. As part of these t-tests, the study fixed an arbitrary score of 4 (on a scale of 1 to 7) for all the 10 items, where the researcher tested the extent to which the respondent's opinions were different from the value of 4, and whether the difference was statistically significant. Larger difference indicates that the respondents perceive NHGs do make a difference, i.e., empowerment is positively enabled by the involvement of NHGs. Detailed results are provided in Table 14 and Table 15.

Table 12: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
NHG provide financial support	300	5.97	1.26	0.0727
NHG can be helpful for building self-respect	300	6.187	1.2478	0.072
Women come together and discuss their problems and raise voice against social exploitation	300	6.233	1.2181	0.0703
Ready to accept risk for income generation	300	5.68	1.3919	0.0804
Women get recognition in decision-making in their family affairs, as an earning member of NHG	300	6.017	1.345	0.0777
Do married women members give importance of education to their children	300	6.463	1.2084	0.0698
As a member of NHG money saving is possible for women - helpful for	300	6.207	1.2553	0.0725

asset building	300	4.823	1.5253	0.0881
Its helpful in generating income	300	5.92	1.2958	0.0748
Women are able to manage their family independently, with self confidence	300	6.113	1.2324	0.0712

Table 13: One-Sample Test Results

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval	
					Lower	Upper
NHG provide financial support	27.079	299	0	1.97	1.827	2.113
NHG can be helpful for building self-respect	30.353	299	0	2.1867	2.045	2.328
Women come together and discuss problems and raise voice against social exploitation	31.756	299	0	2.2333	2.095	2.372
Ready to accept risk for income generation	20.906	299	0	1.68	1.522	1.838
They are getting importance as regards decision making in their family affairs after becoming an earning member of NHG?	25.97	299	0	2.0167	1.864	2.169
Do married women members give importance of education for their children	35.308	299	0	2.4633	2.326	2.601
After joining NHG money saving is possible for them	30.446	299	0	2.2067	2.064	2.349
It is helpful for asset building	9.349	299	0	0.8233	0.65	0.997
Its helpful generating income	25.663	299	0	1.92	1.773	2.067
They are able to manage their family independently due to self confidence	29.701	299	0	2.1133	1.973	2.253

Table 14: Cohen's d - Economic conditions

	μ	X	σ	d
NHG provide financial support	4	5.97	1.26	1.5635
NHG can be helpful for building self-respect.	4	6.187	1.2478	1.7527
Women come together and discuss their problems and raise voice against social exploitation	4	6.233	1.2181	1.8332
Ready to accept risk for income generation	4	5.68	1.3919	1.207
They are getting importance as regards decision making in their family affairs after becoming an earning member of NHG?	4	6.017	1.345	1.4996
Do married women members give importance of education for their children.	4	6.463	1.2084	2.0382
After joining NHG money saving is possible for them.	4	6.207	1.2553	1.7581
It is helpful for asset building	4	4.823	1.5253	0.5396
Its helpful generating income	4	5.92	1.2958	1.4817
They can manage their family independently due to self confidence	4	6.113	1.2324	1.7145

In the first hypotheses (W1.H1) the study proposed that NHGs services are effective in developing women empowerment by delivering adequate financial support. The examination of the hypothesis supported a significant hypothesis (Mean = 5.970, t = 27.07, p < 0.01, d = 1.5635). Thus, the study supported the stated hypothesis, and inferred that NHGs are able to develop empowerment of women by delving required financial support.

In the second hypothesis (W2.H2), the study postulated that NHG services are effective in enabling women empowerment through the execution of activities which are helpful for building self-respect. The examination of the t-test results supported a significant result (Mean = 6.18, t = 30.35, p < 0.01, d = 1.7527). This supported the study hypothesis W2.H2 and directed the study to infer the fact that NHGs are helpful for women to build self-respect in the society.

In third Hypothesis (W3.H3), the study hypothesized that: NHG services are effective in developing women empowerment through providing a platform where women come together and discuss their problems and raise

voice against social exploitation. The test of the hypothesis supported a significant result (Mean = 6.23, t = 31.75, p < 0.01, d = 1.8332). This supported that NHGs provides a platform for women to discuss their problems, and hence the respondents consider it empower their wellbeing.

In hypothesis W4.H4, NHG services are effective in developing women empowerment by helping them to take any risks for their income generation. The test of hypothesis supported a significant effect (Mean = 5.68, t = 20.90, p < 0.01, d = 1.207). This help the study to infer that NHGs prepares the women to take any risks for income generation, hence the services are effective in creating women empowerment.

In Hypothesis W5.H5, the study proposed a hypothesis that: NHG services are effective in developing women empowerment by helping them to get importance with regard regards to decision making (Mean = 6.01, t = 25.97, p < 0.01, d = 1.4996). This finding highlighted the statistical significance of W1.H5, and thus the study inferred that NHGs empower women by preparing them in their decision-making arena.

In Hypothesis W6.H6, the study formulated a hypothesis that: NHG services are effective in developing women empowerment by helping them to give importance of education for their children (Mean = 6.46, t = 35.30, p < 0.01, d = 2.0382). This finding directed the study to support W6.H6 and helped to infer that NHGs are effective in empowerment of the women by helping them an orientation to educate their children.

In hypothesis W7H7, the study proposed that: NHG services are effective in developing women empowerment by helping them to have opportunities for money saving (Mean = 6.11, t = 30.44, p < 0.01, d = 1.7581). Thus, the study supported W7.H7, and inferred that NHGs help the women to have financial savings, hence it is considered to be effective in developing women empowerment.

In Hypothesis W8.H8 , the study formulated that: NHG services are effective in developing women empowerment by helping them for asset building. The analysis results supported significant results (Mean = 4.80, t = 9.34, p < 0.01, d = 0.5396). Thus, the study supported the stated hypothesis, and concluded that NHGs are able to develop women empowerment by orientating them for asset building.

In hypothesis W9.H9 , the study formulated a hypothesis that: NHG services are effective in developing women empowerment by helping them to generate income. The analysis results supported significant results (Mean = 5.92, t = 25.66, p < 0.01, d = 1.4817). Thus, the study supported the stated hypothesis, and concluded that NHGs are able to develop women empowerment by helping them to generate income.

In hypothesis W10.H10, the study formulated a hypothesis that: NHG services are effective in developing women empowerment by managing their family due to self-confidence. The analysis results supported significant results (Mean = 6.11, t = 29.70, p < 0.01, d = 1.7145). Thus, the study supported the stated hypothesis, and concluded that NHGs are able to develop women empowerment by managing their family due to self-confidence.

Discussion & Conclusion

The results related to socio-economic aspects of the study show that Kudumbashree model of microfinance indeed has a positive bearing on poverty reduction. This shows that economic challenges of members are met through microfinance their participation in NHG groups. The results also show that there is economic empowerment happening for the members as NHG provide financial support to them. The study also indicates the following positive influence of MFI for the NHG members, willingness to accept risk for income generation, willingness to take risk to do business, fact that money saving is possible, asset building is possible, generation of additional income and more importantly NHG members feel more independent financially. With respect to the

women empowerment aspects of the study, the results show that women are socially empowered as NHG can be helpful for building self-respect, they are getting importance as regards decision making in their family affairs after becoming an earning member of NHG, married women members are able to give importance of education for their children, they are able to manage their family independently due to self-confidence, Women are able to come together and discuss their problems and are having the ability to raise voice against social exploitation. Higher the difference, it indicates the fact the respondents perceive that the NHGs can create a difference, that is there exists an empowerment due to the involvement in NHGs. The study concludes that Kudumbashree as an MFI has a major role to meet the Socio-economic challenges in Kerala.

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