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Manifest changes through self help groups among women entrepreneurs in Andhra Pradesh

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Abstract

The present investigation was carried out in three districts of Andhra Pradesh viz., Chittoor (from Rayalaseema region), East Godavari (from Coastal region) and Srikakulam (from North Coastal region) during 2016-18. Manifest changes through SHGs among the women entrepreneurs help to discover changes occurred among respondents after joining in SHGs. It will indicate the significant changes occurred among women entrepreneurs in the selected components viz., annual income, productive working days, monthly saving, monthly expenditure, debt status, employment generation, prevalence of bonded labour, dependency on local informal money lenders, social status, type of house, domestic assets, mode of transport, skills in paraprofessional work, awareness about institutional financial transactions, composition of diet, priority for children education, social recognition, communication network, access to credit and livestock assets after joining in SHG.

Keywords: Annual income, productive working days, monthly saving, monthly expenditure

Introduction

'Woman' is the key for success of any human being because of their excellent qualities such as hard-working nature, patience, cordial affiliation, convincing capacity, communication etc., in handling multifaceted activities. On the other hand women in rural areas are comparatively less educated, economically poor, confined to limited geographical boundaries and live under rigid structural constraints. Entrepreneurship is one of the prospective options to uplift rural women by generating self employment opportunities. The concept of Self Help Group (SHG) acts as a driving force for the rural women with the ultimate objective of converting household women as enterprising women and encouraging them to enter into entrepreneurial activities. Manifest changes through SHGs among the women entrepreneurs help to discover changes occurred among respondents after joining in SHGs.

Methodology

Andhra Pradesh state was purposively selected. One district each from three regions of the state viz., Chittoor (From Rayalaseema region), East Godavari (from Coastal region) and Srikakulam (From North Coastal region) were purposively selected based on the highest number of SHGs. Four mandals from each district, two villages from each mandal and one hamlet from each village were purposively selected based on the highest number of SHGs thus making a total of 12 mandals, 24 villages and 24 hamlets respectively. From each village ten women entrepreneurs were selected from all the existing SHGs in that hamlet, by using simple random sampling procedure thus making a total of 240 women entrepreneurs as the sample of the study.

A total of twenty components comprehensively covering all the aspects of measuring impact of SHGs were included in the schedule. The components include; annual income, productive working days, employment generation, prevalence of bonded labour, monthly savings, monthly expenditure, debt status, dependency on local informal moneylenders, social status, type of house, domestic assets, mode of transport, communication network, social recognition, priority for children education, skills in paraprofessional work, access to credit, composition of diet, livestock assets and awareness about institutional financial transactions. Each component measured with the help of scores given in below. Paired t-test, Wilcoxon Signed Rank Test, Sign test were used to find out the significant difference before joining the SHGs and the current status of the women entrepreneurs.

Manifest (direct/visible) changes occurred among the women entrepreneurs through the intervention of SHGs in their life over a period of time were arrived to know the impact of SHGs on women entrepreneurs. The manifest changes were derived by calculating the differences in the selected components from date of joining in SHG to the current status.

The average period of involvement in SHG by the women entrepreneurs was arrived by dividing the total experience of all the respondents with the total number of respondents and was found to be 10.82 years. For all the components, the scores of before joining SHG and the current status were collected, analyzed and presented below.

S. No	Direct changes	Before joining SHG					Current Status				
1.	Annual Income (Rs.)										
2.	Productive working days (Self/Family)										
3.	Employment generation										
4.	Prevalence of bonded labour	No (0)	Low (1)	Medium (2)	High (3)	No (0)	Low (1)	Medium (2)	High (3)		
5.	Monthly savings (Rs.)										
6.	Monthly expenditure (Rs.)										
7.	Debt status (Rs.)										
8.	Dependency on local informal moneylenders	No (0)	Low (1)	Medium (2)	High (3)	No (0)	Low (1)	Medium (2)	High (3)		
9.	Social Status	Lower (1)	Lower Middle (2)	Middle (3)	Middle Upper (4)	Upper (5)	Lower (1)	Lower Middle (2)	Middle (3)	Middle Upper (4)	Upper (5)
10.	Type of house	Shed thatched (1)/ Mudwell thatched (2)/ Brick wall and tiled (3)/ Concrete house (4)/ Concrete double storied (5)					Shed thatched (1)/ Mudwell thatched (2)/ Brick wall and tiled (3)/ Concrete house (4)/ Concrete double storied (5)				
11.	Domestic assets	Utensils/Radio/T.V/Mixi/Grinder/Furniture/ Air cooler/CD players/Computer					Utensils/Radio/T.V/Mixi/Grinder/ Furniture/ Air cooler/CD players/Computer				
12.	Mode of transport	Bicycle (1)/Scooter (2)/Car (3)					Bicycle (1)/Scooter (2)/Car (3)				
13.	Communication network	Mobile (1)/ Android (2)/i phone (3)					Mobile (1)/ Android (2)/i phone (3)				
14.	Social recognition	No (0)	Low (1)	Medium (2)	High (3)	No (0)	Low (1)	Medium (2)	High (3)		
15.	Priority for children education	No (0)	Low (1)	Medium (2)	High (3)	No (0)	Low (1)	Medium (2)	High (3)		
16.	Skills in paraprofessional work	No (0)	Low (1)	Medium (2)	High (3)	No (0)	Low (1)	Medium (2)	High (3)		
17.	Access to credit	Private money lenders (1)/ Commercial Banks (2)/ Primary Agricultural Cooperative Credit Societies (PACS) (3)/ Friends & neighbours (4)/ Self Help Groups (5)					Private money lenders (1)/ Commercial Banks (2)/ Primary Agricultural Cooperative Credit Societies (PACS) (3)/ Friends & neighbours (4)/ Self Help Groups (5)				
18.	Composition of diet	No (0)	Low (1)	Medium (2)	High (3)	No (0)	Low (1)	Medium (2)	High (3)		
19.	Livestock assets Hen Sheep/goat Cow/buffalo										
20.	Awareness about the Institutional financial transactions	No (0)		Yes (1)			No (0)		Yes (1)		

Results and Discussion

Manifest changes through SHGs among women entrepreneurs

Change in the 'Annual Income' of the women entrepreneurs of SHGs

It is clear from table 1 that before joining SHG the average annual income of the women entrepreneurs was Rs. 28,850,

whereas the current status was found to be Rs. 1,28,039. The 't'-value for 'Annual income' was 16.49, which was significant at 1 per cent level since 'p' value was less than 0.01 ($p < 0.01$) for 239 degrees of freedom. Hence, we reject the null hypothesis and there was significant improvement in 'Annual income' of the women entrepreneurs after joining SHG.

Table 1: Change in the 'Annual income' of the women entrepreneurs of SHGs n=240

Aspect	Stage	Mean	N	Std. Deviation	't'-value	Df	'p'-value
Annual income	Before joining SHG	28,850.83	240	38860.44	16.491**	239	0.0000
	Current status	1,280,39.20	240	104776.40			

Statistical test: Paired sample t-test

** : Significant at 0.01 level of probability

This trend was also noticed by Singh *et al.* (2010), Subramanian (2010), Amuthan (2012), Sahoo (2013), Geethanjali and Prabhakar (2013), Kondal (2014), Fernando and Azhagaiah (2015), Gautam and Chettri (2016), Kavitasuri and Rasmeekaur (2016), Lagare *et al.* (2016), Kumar and Joshi (2016), Sain and Mondal (2017) and Umadevi and Lakshminarasaiiah (2017) [16, 17, 1, 14, 5, 7, 3, 4, 6, 9, 8, 15, 18].

Change in the 'Productive working days' of the Women Entrepreneurs of SHGs

The data presented in table 2 portrayed that before joining

SHG the average productive working days of the women entrepreneurs was 15 whereas the current status was stated that 29. The 't'-value for 'Productive working days' was 15.35, which was significant at the 1 per cent level since 'p' value was less than 0.01 ($p < 0.01$) for 239 degrees of freedom. Hence, we reject the null hypothesis and there was a significant increase in 'Productive working days' of the women entrepreneurs after joining SHG. This finding of the study was in agreement with the findings of Subramanian (2010) and Lagare *et al.* (2016) [17, 9].

Table 2: Change in the 'Productive working days' of the women entrepreneurs of SHGs n = 240

Aspect	Stage	Mean	N	Std. Deviation	't'-value	Df	'p'-value
Productive working days	Before joining SHG	15.375	240	14.63	15.35**	239	0.0000
	Current status	29.875	240	1.93			
Statistical test: Paired sample t-test							

** : Significant at 0.01 level of probability

Change in the 'Monthly Saving' of the Women Entrepreneurs of SHGs

The information in table 3 gives a clear picture that before joining SHG the average monthly saving of the women entrepreneurs was Rs. 88, whereas the current status reports that Rs. 1,216. The 't'-value for 'Monthly saving' was 11.93,

which was significant at the 1 per cent level since 'p' value was less than 0.01 ($p < 0.01$) for 239 degrees of freedom. Hence, we reject the null hypothesis and there was significant improvement in 'Monthly saving' of the women entrepreneurs after joining SHG.

Table 3: Change in the 'Monthly saving' of the women entrepreneurs of SHGs n = 240

Aspect	Stage	Mean	N	Std. Deviation	't'-value	Df	'p'-value
Monthly saving	Before joining SHG	88.75	240	390.4703	11.93**	239	0.0000
	Current status	1216.25	240	1571.033			
Statistical test: Paired sample t-test							

** : Significant at 0.01 level of probability

This finding was in conformity with the findings of Subramanian (2010), Sahoo (2013), Melesekaasa (2015), Rasnathak and Singla (2015), Fernando and Azhagaiah (2015), Lagare (2016), Kumar and Joshi (2016), Sain and Mondal (2017) and Umadevi and Lakshminarasaiiah (2017) [17, 14, 10, 12, 3, 9, 8, 15, 18].

Change in the 'Monthly Expenditure' of the Women Entrepreneurs of SHGs

It is evident from the table 4 that before joining SHG the

average monthly expenditure of the women entrepreneurs was Rs. 4,240 whereas the current status was indicated that Rs. 8,177. The 't'-value for 'Monthly expenditure' was 24.82, which was significant at 1 per cent level since 'p' value was less than 0.01 ($p < 0.01$) for 239 degrees of freedom. Hence we reject the null hypothesis and there was significant improvement in 'Monthly expenditure' of the women entrepreneurs after joining SHG.

Table 4: Change in the 'Monthly expenditure' of the women entrepreneurs of SHGs n = 240

Aspect	Stage	Mean	N	Std. Deviation	't'-value	Df	'p'-value
Monthly expenditure	Before joining SHG	4240.000	240	1954.563	24.82**	239	0.0000
	Current status	8177.083	240	3740.105			
Statistical test: Paired sample t-test							

** : Significant at 0.01 level of probability

This finding was in line with the findings of Subramanian (2010), Sahoo (2013), Geethanjali and Prabhakar (2013), Brindashree and Jayakumar (2015a), Rasnathak and Singla (2015) and Fernando and Azhagaiah (2015) [17, 14, 5, 2, 12, 3].

Change in the 'Debt Status' of the Women Entrepreneurs of SHGs

From the above table 5 it is inferred that before joining SHG the average debt status of the women entrepreneurs was Rs.

1,74,750 whereas the current status was stated that Rs. 1,47,145. The 't'-value for 'Debt status' was 2.39, which was significant at the 5 per cent level since 'p' value was less than 0.05 ($p < 0.017$) for 239 degrees of freedom. Hence, we reject the null hypothesis and there was significant reduction in 'Debt status' of the women entrepreneurs after joining SHG. This finding was in line with the finding of Singh *et al.* (2010) [16].

Table 5: Change in the 'Debt status' of the women entrepreneurs of SHGs n = 240

Aspect	Stage	Mean	N	Std. Deviation	't'-value	Df	'p'-value
Debt status	Before joining SHG	1,74,750	240	242336.8	2.399*	239	0.0171
	Current status	1,47,145.8	240	190670.1			
Statistical test: Paired sample t-test							

** : Significant at 0.01 level of probability

Change in the 'Employment Generation' of the Women Entrepreneurs of SHGs

It is obvious from the data presented in table 6 that before joining SHG the average employment generation of the women entrepreneurs was zero, whereas the current status was found to be 1. The 't'-value for 'Employment generation'

was 2.30, which was significant at 5 per cent level since 'p' value was less than 0.05 ($p < 0.022$) for 239 degrees of freedom. Hence, we reject the null hypothesis and there was significant improvement in 'Employment generation' of the women entrepreneurs after joining SHG. This finding was in line with the finding of Rao (2011) [11].

Table 6: Change in the 'Employment generation' of the women entrepreneurs of SHGs n = 240

Aspect	Stage	Mean	N	Std. Deviation	't'-value	Df	'p'-value
Employment generation	Before joining SHG	0	240	0	2.30*	239	0.0222
	Current status	1.63	240	10.99329			
Statistical test: Paired sample t-test							

** : Significant at 0.01 level of probability

Change in the 'Prevalence of Bonded Labour' of the Women Entrepreneurs of SHGs

It is seen from table 7 that before joining SHG nearly half (46.70%) and two-fifth (40.80%) of the women entrepreneurs under the 'medium' and 'high' prevalence of bonded labour, whereas the current status was revealed that 2.9 percent and 2.1 respectively. Before joining SHG 3.3 percent and 9.2 percent of the women entrepreneurs under the 'no' and 'low' prevalence of bonded labour, whereas the current status was found to be 84.2 percent and 10.8 percent respectively. Thus,

there was a significant shift in the 'Level of the prevalence of bonded labour', which might be due to the association with the SHGs.

The 'z'-value for 'Prevalence of bonded labour' was 12.65, which was significant at 1 per cent level since 'p' value was less than 0.01 ($p < 0.000$). Hence, we reject the null hypothesis and there was significant decline in 'Prevalence of bonded labour' of the women entrepreneurs after joining SHG. This finding was in line with the finding of Rao (2011) [11].

Table 7: Change in the 'Prevalence of bonded labour' of the women entrepreneurs of SHGs n = 240

Prevalence of bonded labour	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
No	8	3.30	202	84.20	12.652**	0.000
Low	22	9.20	26	10.80		
Medium	112	46.70	7	2.90		
High	98	40.80	5	2.10		
Total	240	100.00	240	100.00		
Statistical test: Wilcoxon signed rank test						

** : Significant at 0.01 level of probability

Change in the 'Dependency on Local Informal Money Lenders' of the Women Entrepreneurs of SHGs

It is seen from table 8 that before joining SHG two-third (70.40%) and 13.7 percent of the women entrepreneurs have 'high' and 'medium' dependency on local informal money lenders, whereas the current status was found to be 2.9 percent and 10 percent respectively. Before joining SHG 11.7 percent and 4.2 percent of the women entrepreneurs have 'no' and 'low' dependency on local informal money lenders, whereas the current status was stated that 44.2 percent and 42.9 percent

respectively. Thus, there was a significant shift in the 'Dependency on local informal money lenders', which might be due to the association with the SHGs.

The 'z'-value for 'Dependency on local informal money lenders' was 12.65, which was significant at 1 per cent level since 'p' value was less than 0.01 ($p < 0.000$). Hence we reject the null hypothesis and there was significant decrease in the 'Dependency on local informal money lenders' by the women entrepreneurs after joining SHG. This finding was in line with the finding of Subramanian (2010) [17].

Table 8: Change in the 'Dependency on local informal money lenders' of the women entrepreneurs of SHGs n = 240

Dependency on local informal money lenders	Before joining SHG		Current status		'z'-value	p-value
	N	P	N	P		
No	28	11.70	106	44.20	12.652**	0.000
Low	10	4.20	103	42.90		
Medium	33	13.70	24	10.00		
High	169	70.40	7	2.90		
Total	240	100.00	240	100.00		
Statistical test: Wilcoxon signed rank test						

** : Significant at 0.01 level of probability

Change in the 'Social Status' of the Women Entrepreneurs of SHGs

The data presented in table 9 indicated that before joining SHG 45 per cent of the women entrepreneurs under the 'lower class', whereas the current status was revealed that 10.41 percent. Before joining SHG, 34.18 percent, 20.41 per cent and 0.41 percent of the women entrepreneurs were under

the 'lower middle class', 'middle class' and 'middle upper class' respectively. While the current status was found to be 42.5 per cent, 40.83 per cent and 6.26 per cent respectively. This indicates that the association with the SHGs improves the 'Social status' of the members.

The 'z'-value for social status was 12.57, which was significant at 1 per cent level since 'p' value was less than

0.01($p < 0.000$). Hence, we reject the null hypothesis and there was significant improvement in the 'Social status' of the

women entrepreneurs after joining SHG.

Table 9: Change in the 'Social Status' of the Women Entrepreneurs of SHGs n = 240

Social status	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
Lower class	108	45.00	25	10.41	12.570**	0.0000
Lower middle class	82	34.18	102	42.50		
Middle class	49	20.41	98	40.83		
Middle upper class	1	0.41	15	6.26		
Upper class	-	-	-	-		
Total	240	100.00	240	100.00		

Statistical test: Wilcoxon signed rank test

** : Significant at 0.01 level of probability

Change in the 'Type of House' of the Women Entrepreneurs of SHGs

It is seen from table 10 that before joining SHG 47.9 per cent, 15 per cent and 14.6 per cent of the women entrepreneurs have 'Brick wall and tiled house', 'Mud well thatched' and 'Shed thatched', whereas the current status was found to be 16.6 per cent, 12.1 per cent and 1.7 per cent respectively. Before joining SHG 22.5 per cent of the women entrepreneurs had 'Concrete house', whereas the current status was revealed

that 65.4 per cent. There was nobody have 'Concrete double storied houses' before joining SHG, the current status was found to be 4.2 per cent.

The 'z'-value for 'Social status' was 13.04, which was significant at 1 per cent level since 'p' value was less than 0.01 ($p < 0.000$). Hence, there was significant improvement in the 'Type of house' possessed by the women entrepreneurs after joining SHG.

Table 10: Change in the 'Type of house' of the women entrepreneurs of SHGs n = 240

Type Of House	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
Shed thatched	35	14.60	4	1.70	13.043**	0.000
Mud well thatched	36	15.00	29	12.10		
Brick wall and tiled	115	47.90	40	16.60		
Concrete house	54	22.50	157	65.40		
Concrete double storied	-	-	10	4.20		
Total	240	100.00	240	100.00		

Statistical test: Wilcoxon signed rank test

** : Significant at 0.01 level of probability

Change in the 'Domestic Assets' of the Women Entrepreneurs of SHGs

It was observed from the table 11 that before joining SHG majority (73.75%) of the women entrepreneurs possessed only 2 domestic assets, whereas the current status was revealed that 39.58 per cent, 27.5 per cent and 14.58 per cent of the women entrepreneurs coming to a total of 81.66 per cent of them possessed 4, 3 and 5 domestic assets respectively.

The 'z'-value for 'Domestic assets' was 13.56, which was significant at the 1 per cent level since 'p' value was less than 0.01 ($p < 0.000$). Hence, there was significant improvement in the possession of 'Domestic assets' by the women entrepreneurs after joining SHG. The finding was in conformity with the findings reported by Subramanian (2010), Amuthan (2012) and Fernando and Azhagaiah (2015) [17, 1, 3].

Table 11: Change in the 'Domestic assets' of the women entrepreneurs of SHGs n = 240

Number of domestic assets	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
1	36	15.00	6	2.50	13.560**	0.000
2	177	73.75	21	8.75		
3	24	10.00	66	27.50		
4	2	0.83	95	39.58		
5	1	0.42	35	14.58		
6	-	-	9	3.75		
7	-	-	5	2.08		
8	-	-	2	0.83		
9	-	-	1	0.42		
Total	240	100.00	240	100.00		

Statistical test: Wilcoxon signed rank test

** : Significant at 0.01 level of probability

Change in the 'Mode of Transport' of the Women Entrepreneurs of SHGs

A glance at table 12 shows that before joining SHG 97.9 per cent of the women entrepreneurs did not have any vehicle for

transport, whereas the current status was found to be only 46.7 per cent without a vehicle. Before joining SHG only 1.7 per cent and 0.4 per cent of the women entrepreneurs have bicycle and scooter for transport, whereas current status raised

to 11.7 per cent and 40 per cent respectively. Before joining SHG nobody have car, whereas the current status was found to be 1.6 per cent.

The 'z'-value for 'Mode of transport' was 10.32, which was significant at 1 the per cent level since 'p' value was less than

0.01($p < 0.000$). Hence, there was significant improvement in the purchase of vehicles by the women entrepreneurs after joining SHG. The finding was in conformity with the findings reported by Shanthi and Ganapathi (2012).

Table 12: Change in the 'Mode of transport' of the women entrepreneurs of SHGs n = 240

Mode of transport	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
Zero	235	97.90	112	46.70	10.325**	0.000
Bicycle	4	1.70	28	11.70		
Scooter	1	0.40	96	40.00		
Car	-	-	4	1.60		
Total	240	100.00	240	100.00		

Statistical test: Wilcoxon signed rank test

** : Significant at 0.01 level of probability

Change in the 'Skills in Paraprofessional Work' of the Women Entrepreneurs of SHGs

It could be understood from table 13 that before joining SHG 55.83 per cent and 37.09 per cent of the women entrepreneurs have 'no' and 'low' skills in paraprofessional work, whereas the current status was found to be 0.42 percent and 6.67 percent respectively. Before joining SHG only 7.08 per cent of the women entrepreneurs had 'medium' skills in paraprofessional work, whereas the current status was revealed that 79.58 per cent. Before joining SHG nobody have 'high' skills in paraprofessional work whereas the

current status was indicated that 13.33 per cent. Thus, there was a significant shift in the 'Skills in paraprofessional work' which might be due to the association with the SHGs.

The 'z'-value for 'Skills in paraprofessional work' 13.57, which was significant at the 1 per cent level since 'p' value was less than 0.01 ($p < 0.000$). Hence, we reject the null hypothesis and there was significant improvement in 'Skills in paraprofessional work' of the women entrepreneurs after joining SHG. The above finding is in conformity with the findings of Rao (2011) [11].

Table 13: Change in the 'Skills in paraprofessional work' of the women entrepreneurs of SHGs n = 240

Skills in paraprofessional work	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
No	134	55.83	1	0.42	13.574**	0.000
Low	89	37.09	16	6.67		
Medium	17	7.08	191	79.58		
High	-	-	32	13.33		
Total	240	100.0	240	100.0		

Statistical test: Wilcoxon signed rank test

** : Significant at 0.01 level of probability

Change in the 'Awareness about institutional financial transactions' of the women entrepreneurs of SHGs

An analytical look at the table 14 made it clear that, about most (94.60%) of the members said that they didn't aware about institutional financial transactions before joining the SHGs, whereas the current status revealed that all members were aware about institutional financial transactions.

The 'z'-value for 'Awareness about institutional financial transactions' was 15.00, which was significant at 1 the per cent level since 'p' value was less than 0.01($p < 0.000$). Hence, we reject the null hypothesis and there was significant improvement in 'Awareness about institutional financial transactions' of the women entrepreneurs after joining SHG. The findings were similar to that of Rao (2011) [11].

Table 14: Change in the 'Awareness about institutional financial transactions' of the women entrepreneurs of SHGs n = 240

Awareness about institutional financial transactions	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
No	227	94.60	0	0.00	15.000**	0.000
Yes	13	5.40	240	100.00		
Total	240	100.0	240	100.0		

Statistical test: Sign. test

** : Significant at 0.01 level of probability

Change in the 'Composition of Diet' of the Women Entrepreneurs of SHGs

It could be understood from table 15 that before joining SHG nobody under 'high' composition of diet, whereas the current status was revealed that nobody under 'no' composition of the diet. Before joining SHG 52.08 per cent and 26.25 per cent of the women entrepreneurs have 'low' and 'medium' composition of diet, whereas the current status was found to

be 16.67 per cent and 67.5 per cent. The 'z'-value for 'Composition of diet' was 13.701, which was significant at the 1 per cent level since 'p' value was less than 0.01($p < 0.000$). Hence we reject the null hypothesis and there was significant improvement in the 'Composition of diet' of the women entrepreneurs after joining SHG. The findings were in accordance with the studies conducted by Subramanian (2010) and Rao (2011) [17, 11].

Table 15: Change in the 'Composition of diet' of the women entrepreneurs of SHGs n = 240

Composition of diet	Before joining SHG		Current status		'z'-value	p-value
	N	P	N	P		
No	52	21.67	-	-	13.701**	0.000
Low	125	52.08	40	16.67		
Medium	63	26.25	162	67.50		
High	-	-	38	15.83		
Total	240	100.00	240	100.00		

Statistical test: Wilcoxon signed rank test

**: Significant at 0.01 level of probability

Change in the 'Priority for Children Education' of the Women Entrepreneurs of SHGs

It could be understood from table 16 that before joining SHG 59.5 per cent and 12.5 per cent of the women entrepreneurs have given 'low' and 'no' priority for children education, whereas the current status was indicated that 5.8 percent and 2.5 percent respectively. Before joining SHG 28 percent of the women entrepreneurs have given medium priority for children education, whereas the current status was states that 57.9 percent. Before joining SHG nobody have given high

priority for children education, whereas the current status was revealed that 33.8 per cent. Thus, there was significant shift in the 'Priority for children education'. The 'z'-value for 'Priority for children education' was 13.30, which was significant at the 1 per cent level since 'p' value was less than 0.01 ($p < 0.000$). Hence we reject the null hypothesis and there was significant improvement in the giving 'Priority for children education' of the women entrepreneurs after joining SHG. The results were in congruence with the findings of Rao (2011) [11] and Ravindra (2011).

Table 16: Change in the 'Priority for children education' of the women entrepreneurs of SHGs n = 240

Priority for children education	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
No	30	12.50	6	2.50	13.305**	0.000
Low	143	59.50	14	5.80		
Medium	67	28.00	139	57.90		
High	-	-	81	33.80		
Total	240	100.00	240	100.00		

Statistical test: Wilcoxon signed rank test

**: Significant at 0.01 level of probability

Change in the 'Social Recognition' of the Women Entrepreneurs of SHGs

It could be understood from table 17 that before joining the SHG 70 per cent and 25.4 per cent of the women entrepreneurs have 'no' and 'low' social recognition, whereas the current status revealed that only 0.80 percent and 4.6 per cent respectively. Before joining SHG 4.6 per cent of the women entrepreneurs have medium social recognition, whereas the current status revealed that 83.3 per cent. Before

joining SHG nobody have high social recognition, whereas the current status was found to be 11.3 per cent.

The 'z'-value for 'Social recognition' was 13.34, which was significant at 1 per cent level since 'p' value was less than 0.01 ($p < 0.000$). Hence we reject the null hypothesis and there was significant improvement in the 'Social recognition' of the women entrepreneurs after joining SHG. These results are in accordance with the findings of Amuthan (2012) [11].

Table 17: Change in the 'Social recognition' of the women entrepreneurs of SHG n = 240

Social Recognition	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
No	168	70.00	2	0.80	13.340**	0.000
Low	61	25.40	11	4.60		
Medium	11	4.60	200	83.30		
High	-	-	27	11.30		
Total	240	100.00	240	100.00		

Statistical test: Wilcoxon signed rank test

**: Significant at 0.01 level of probability

Change in the 'Communication Net work' of the Women Entrepreneurs of SHGs

It could be understood from table 18 that before joining SHG majority (89.20%) of the members don't have mobile phones for communication, whereas the current status indicated that only 4.2 per cent of women entrepreneurs didn't mobile phones. Before joining SHG 10.4 per cent and 0.4 per cent of the members have a mobile and android phone, whereas the

current status was found to be 86.7 per cent and 9.2 per cent respectively. The 'z'-value for 'Communication network' was 14.73, which was significant at 1 per cent level since 'p' value was less than 0.01 ($p < 0.000$). Hence, we reject the null hypothesis and there was significant improvement in the 'Communication network' of the women entrepreneurs after joining SHG. This result was in agreement with Amuthan (2012) [11].

Table 18: Change in the 'Communication network' of the women entrepreneurs of SHGs n = 240

Communication network	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
No phone	214	89.20	10	4.20	14.739**	0.000
Mobile	25	10.40	208	86.60		
Android	1	0.40	22	9.20		
Total	240	100.00	240	100.00		

Statistical test: Wilcoxon signed rank test

**: Significant at 0.01 level of probability

Change in the 'Access to Credit' of the Women Entrepreneurs of SHGs

A bird eye view at table 19 bring to notice that before joining SHG majority (80.83%) of the women entrepreneurs

depended on private money lenders for credit, whereas the current status shows that there dependency on money lenders was decreased to 41.25 per cent.

Table 19: Change in the 'Access to credit' of the women entrepreneurs of SHGs n = 240

Access to credit	Before joining SHG		Current status		'z'-value	'p'-value
	N	P	N	P		
Self Help Groups	0	0.00	240	100.00	13.427**	0.00
Friends & neighbours	62	25.83	45	18.75		
Primary Agricultural Cooperative Credit Societies (PACS)	13	5.41	21	8.75		
Commercial Banks	4	1.66	15	6.25		
Private money lenders	194	80.83	99	41.25		

Statistical test: Wilcoxon signed rank test

**: Significant at 0.01 level of probability

The 'z'-value for 'Access to credit' was 13.42, which was significant at the 1 per cent level since 'p' value was less than 0.01 ($p < 0.000$). Hence, there was significant improvement in the 'Access to credit' of the women entrepreneurs after joining SHG. This result was in agreement with Rao (2011) [11].

Change in the 'Livestock Assets' of the Women Entrepreneurs of SHGs

From the table 20 it was recognized that after joining SHG the average of livestock assets *i.e.* hen, sheep/goat and

cow/buffalo of the women entrepreneurs was 0.84, 0.07 and 0.36 whereas the current status was found to be 0.02, 0.01 and 0.02 respectively.

The 't'-value and 'p'-values were 6.235 and 0.000 ($p < 0.01$) for hen and 4.313 and 0.00 ($p < 0.01$) for cow/buffalo, which were significant at the 1 per cent level since 'p' value was less than 0.01, whereas for sheep/goat with 't'-value 1.730 and 'p'-value 0.084 ($p > 0.05$) which was non significant at the 5 per cent level since p value was more than 0.05. The finding draws support with the studies of Fernando and Azhagaiah (2015) [3].

Table 20: Change in the 'Livestock assets' of the women entrepreneurs of SHGs n = 240

Aspect	Stage	Mean	N	Std. Deviation	't'-value	'p'-value
Hen	Before joining SHG	0.02	240	0.232	6.235**	0.000
	Current status	0.84	240	2.939		
Sheep/Goat	Before joining SHG	0.01	240	0.129	1.730 ^{NS}	0.084
	Current status	0.07	240	0.535		
Cow/Buffalo	Before joining SHG	0.02	240	0.182	4.313**	0.00
	Current status	0.36	240	1.230		

Statistical test: Paired sample t-test

*: Significant at 0.05 level of probability

**: Significant at 0.01 level of probability

Conclusion

An overview of the manifest changes of all the components of women entrepreneurs of SHGs clearly indicated that, there were significant changes from their date of joining in SHGs to the current status among the women entrepreneurs. Hence, we can conclude that, there was significant impact of SHGs on the women entrepreneurs through their entrepreneurial activities. Still there is every scope to improve all the selected components for overall development of SHG women. On the other side, the entrepreneurial behaviour is highly contributing for manifest changes among women entrepreneurs. Hence, there is every need to focus more on enhancing the entrepreneurial behaviour of the women entrepreneurs of SHGs through different capacity building activities.

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