

Impact Study on Empowerment of Women Through Women Farmer Producer Organization (WFPO) in Tiruvannamalai Districts

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Abstract: The study was focused on the topic entitled the impact of the Women Farmer Producer Organization (WFPO) on the empowerment of women farmers, who play a prominent role in agriculture and allied sectors but face various challenges and constraints. The study aims to determine the socio-economic and psychological characteristics of the respondents and to analyze the perceived impact of WFPO on their empowerment in terms of personal, socio-economic, psychological, and political aspects. This study adopts an ex post facto research design and uses a random sampling method to select 60 respondents from a WFPO in Tiruvannamalai district and collected the data on various variables such as age, education, occupation, farm size, social participation, extension agency contact, training experience, and attitude towards FPO. The paired sample t-test was used to compare the income of the respondents before and after joining the WFPO by using SPSS software 26.0. The results show that there is a significant difference between the income of the respondents before and after joining the WFPO, indicating that the WFPO has a positive impact on their empowerment and livelihood. It is inferred that the FPO module assisted respondents in raising their income from various income-generating activities and in their overall income.

1 INTRODUCTION

The women folk play a most prominent role in the agriculture and allied sectors. Based on the 10th agricultural census (2015 -2016) report, it was noticed that there was a rise in the total number of operational holdings in the country from 138.35 million in 2010 -11 to 146.45 million in 2015-16, which shows a 5.86 percent increase when compared to the previous census report. This report shows that the involvement of women was gradually increasing in the operations of agricultural holdings in the country. Still, the women in our country lack proper access to market information, extension agency services, financial support, technical and technological support, and institutional support when compared to men who access them much more easily. So, the women should get provisional access to capital, and financial support which helps them to start their firms rather than depending on others. Even though the self-help groups are contributing to and supporting women it is not sufficient to face the growing economic

conditions and balance their nutritional status. It also affects their livelihood. Women should join and make use of the opportunities available in agriculture and allied companies' sectors. To empower women and enhance their livelihood and food security, the government, extension agencies, public, NGO, and private sectors are also focusing on Women Farmer Producer

The Farmer Producer Organization was focused on coordinating the farmers who are living in the same area and growing the same crop in the village for collective farming with effective utilization of available resources based on the membership of farmers who have a common interest in developing technologies and financial activities through which maintaining the relationship with the partners collaborating in their economic and institutional environment. The services provided by the Farmer Producer Organization start from the pre-production and post-production stages, including marketing services, financial services, technology services, educational services, welfare services, etc., National Institute of

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Agricultural Extension Management (MANAGE,2021). The objective of the study is to determine the socio-economic and psychological characteristics of the respondents and to analyze the perceived impact of the Women Farmer Producer Organization (WFPO) on the empowerment of women farmers.

1.1 Women Farmer Producer Organization

After analyzing the crucial role played by women in agriculture, the FPO has provided problem-solving solutions on how women in agriculture can get their share and be registered. The government of India is already providing special subsidies to women farmers and looks forward to supporting any viable project for women's economic empowerment in agriculture.

1.2 Empowerment of Women

Empowerment is a process of enlightenment of power to recognize one's rights and to accomplish their duties. It is a multidimensional functional process that enlightens a person to recognize their capacity and strengths in all aspects of life. The word empowerment has a remarkable feature, namely 'power', which means the right to control property assets, intellectual resources, and ideology. (Mukherjee et al., 2020). Grover (2002) has defined empowerment as a process of independence and cooperation. It is performed through the involvement of individuals and the members of the groups, who frequently improve their awareness and potential to organize the meetings and make the change. The empowerment of women farmers is not only focussing on their sustainable livelihood improvement and providing food security-enhancing nutritional status but also on improving the standard of women farmers in society and making the invisible women visible. It is achieved by encouraging women farmers to get access to opportunities, resources, knowledge, and skills and by making them naturally empowered and independent. The Farmer Producer Organization plays the most prominent role in empowering the small and marginal farmers as well as the women farmers, which leads to the betterment of their lives. This study examines the impact of women farmers' empowerment through the Farmer Producer Organization in various sectors like Personal Empowerment, socioeconomic and psychological empowerment, and political empowerment, followed by (Mukherjee et al., 2020).

2 REVIEW OF LITERATURE

(Mukherjee et al., 2020) discovered that social participation, extension agency contact, training experiences, attitude towards FPO, and, most importantly, income are significantly different at a one percent level of significance. The attitude towards the FPO was found to be more positive in the case of members than in the case of non-members. Also, it was noticed that the majority (73.68 per cent) of the respondents were in the category of the very high level of empowerment, followed by 26.32 per cent in the high category, and none of the respondents fell under either the modern or low levels of empowerment category. This indicates that member women farmers were more empowered than that of non-members. A study revealed that the hill-based farmer producer FPO was highly effective in empowering women. It was found that FPO shows a positive impact on the livelihood and well-being of women farmers. (Bizikova et al., 2020) noticed that Farmer Organizations could be grouped into six categories: income yield, production quality, environment empowerment, and food security (67 per cent). The studies reported that Farmer Organization membership was associated with in case of improvement. (Mwambi et al., 2021) revealed that the respondents were independent and had the right to control the buying and selling of land was increased by 2.75 per cent as a household membership.

3 RESEARCH METHODOLOGY

This study was carried out by choosing an ex post facto research design. The study was conducted in the Tiruvannamalai district, with a sample size of 60 women farmers members in FPO. A random proportionate sampling method was chosen for sample selection, using the ranking or run order method, to reduce the bias. Independent variables are analyzed using the descriptive statistics method to find the frequency and percentage analysis. A paired sample t-test was chosen for this study to compare the respondents before and after joining the FPO of Women farmers. The paired sample t-test gives a hypothesis examination of the difference between population means for a set of random samples whose variation was often tested in a before-after situation, and it was calculated using the following formula.

$$t = \frac{\sum d}{\sqrt{\frac{n(\sum d^2) - (\sum d)^2}{n-1}}}$$

where d: difference per paired value
n: number of samples

4 RESULTS AND DISCUSSIONS

Table 1 presents the results of the study that analyzed eight variables, including family size, farm size, farming experience, annual income, social participation, extension agency contact, training experience, and attitude toward FPO. The data shows that the majority of respondents were in the old age group (38.3%), followed by the middle age group (36.7%) and the young age group (25%). Regarding educational qualification, only 21.7% of respondents were illiterate, while 13.5% were educated up to primary school, 18.3% had a high school education or above. Most respondents (61.7%) had agriculture as their primary occupation, followed by a secondary occupation (38.3%). Most of the respondents had a nuclear family size (51.7%), and around 33.3% were marginal farmers, followed by 35% of the farmers being marginal farmers and 30% of the farmers falling under the category of large farmers.

Table 1. Socio-economic Status of the Women Farmers

S.No	Variables	Frequency	Percentage
1.	Age		
	Young	15	25.0
	Middle	22	36.7
	Old	23	38.3
	Total	60	100.0
2.	Educational Qualification		
	Illiterate	13	21.7
	Functionally Literate	8	13.3
	Primary education	11	18.3
	Middle education	8	13.3
	Secondary education	5	8.3
	Collegiate	15	25.0
	Total	60	100.0
3.	Occupation		
	Primary occupation	37	61.7
	Secondary occupation	23	38.3
	Total	60	100.0
4.	Family type		
	Nuclear	29	48.3
	Joint	31	51.7
	Total	60	100.0
5.	Farm Size		
	Marginal farm	22	36.7
	Small farm	20	33.3
	Large farm	18	30.0

	Total	60	100.0
6.	Farming Experience		
	Up to 5 years	23	38.3
	>5to<10years	21	35.0
	>10years	16	26.7
	Total	60	100.0
7.	Social Participation		
	Office bearer	28	46.7
	member	32	53.3
	Total	60	100.0
8.	Extension Agency Contact		
	Never	21	35.0
	Sometimes	20	33.3
	Regular	19	31.7
	Total	60	100.0
9.	Training Experience		
	Exceeded the expectance	39	65
	Met the expectance level	21	35
	Total	60	100.0
10.	Attitude towards FPC		
	More positive	33	55.0
	Less positive	27	45.0
	Total	60	100

Most of the women farmers had low-level farming experience followed by medium and high levels. Most of the farm women had a high level (53.3%) of social participation. Only 35% of the respondents had low extension agency contact, while the rest had medium and high levels of extension agency contact. The majority of the respondents (65%) shared their perception that the training experience conducted and organized by extension agencies through FPO was good and useful. It was also found that the attitude towards the FPO was good when compared with the non-members of the FPO, as they are getting more benefits.

Table 2. Percentage of the annual income of women farmers in WFPO.

Pair	Before and after joining the FPO	Annual Income in Rs.	Frequency		Percentage
1	Before joining the FPO	20,000 - 40,000	Low	21	35.0
	annual income in		Medium	27	45.0
	Groundnut		High	12	20.0

	production and marketing				
2	After joining the FPO annual income in Groundnut production and marketing	40000-60000	Low Medium High	22 20 18	36.7 33.3 30.0
3	Before joining FPO groundnut value addition and marketing	5000	Low Medium High	17 22 21	28.3 36.7 35.0
4	After joining FPO groundnut value addition and marketing	5000-10000	Low Medium High	19 23 18	31.7 38.3 30.0

The above table 2 presents data on the impact of women farmers joining a Women Farmers' Producer Organization (WFPO) on their annual income from groundnut production and marketing. After joining the WFPO, there's a noticeable increase in the annual income range for groundnut production and marketing, from 20,000 - 40,000 to 40,000 - 60,000. There's also an improvement in income from groundnut value addition and marketing after joining the WFPO, with the range moving from 5,000 to 5,000 - 10,000. The frequency distribution of income levels shifts towards higher income brackets after joining the WFPO. The data suggests that joining the WFPO positively affects the economic empowerment of women farmers in the context of groundnut production and marketing.

Table. 3. Average increase in income based on their involvement in groundnut production, value addition, and marketing after joining the FPO

	Paired Samples Test							
	Paired Differences					t	df	Signifi
	Mean	Std. Deviation	Std. Error Mean	95% Confidence				Two –
				Interval of the				Sided p
				Difference				
				Lower	Upper			
Pair 1	-	5012.986	647.17	-	-			
	23549.40		4	24844.39	22254.	-	59	<.001
	0			2	408	36.38		
						8		
Pair 2	-	3261.756	421.09	-	-	-	59	<.001
	11407.58		1	12250.18	10564.	27.09		
	3			4	982	1		

From the table 3. The paired sample test 't' was computed by dividing the paired differences mean of various pairs by the SE of respective pairs. The results were

36.388 and 27.091 for Pair 1 and Pair 2, respectively. The degree of freedom (df) has been calculated as 59 (n-1) as the same farm women shareholders of WFPO in Tiruvannamalai Dist. had shared their perceptions about the income from various generating activities and their overall annual income before and after joining the WFPO. Finally, the probability has been presented in the column titled sig. (2-tailed) value, which was recorded as ($p < .001$, $p < .05$) for the income of the women farmer shareholders of the WFPO, Tiruvannamalai, of Pair 1 and Pair 2.

The results presented in Table 3 show that since the p value is less than 0.05 ($p = 0$, $p < .05$), the null hypothesis H01 is rejected for Pair 1, i.e. income generating activity groundnut production and marketing. Hence, it is concluded that there is a significant difference between before and after joining WFPO among the income of women farmers shareholders through the income generating activity groundnut production and marketing. Similarly, the p value is recorded as ($p < .001$, $p < .05$) for the income of the women farmer shareholders of the WFPO, Tiruvannamalai, of Pair 1 and Pair 2. The results presented in Table 4 show that since the p value is less than 0.05 ($p = 0$, $p < .05$), the null hypothesis H02 is rejected for Pair 1, i.e. income generating activity groundnut value addition and marketing. Hence, it is concluded that there is a significant difference between before and after joining WFPO among the income of women farmers shareholders through the income generating activity groundnut value addition and marketing.

5 CONCLUSION

The socio-economic profile of respondents in the study included factors such as age, educational qualification, occupation, family size, farm size, farming experience, annual income, social participation, extension agency contact, training experience, and attitude towards FPO. Women farmers face challenges in accessing resources and support in agriculture, and there is a need for provisional access to capital and financial support. Farmer Producer Organizations (FPOs) play a significant role in coordinating farmers and providing services such as marketing, financial, technology, and educational services. FPO membership has empowered women farmers, improving their livelihoods and confidence.

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