Economic Impact of Farmer Producer Company on its Members

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Abstract

The present study on the economic impact of Farmer Producer Company on its members was undertaken in Nashik district of North-Western region of Maharashtra state with a sample size of 120 respondents from two Farmer Producer Companies. To study the economic impact, mean and per cent change was calculated out of pre and post participation of members. This per cent change was then considered for the extent of the impact of each parameter. As regards the impact on economic status changes observed were, in employment generation which was 52.25 per cent and 'Z' value (9.58), in subsidiary occupation it was 43.12 per cent and 'Z' value (9.46), in annual income 61.27 per cent and 'Z' value (9.75), in annual expenditure 40.00 per cent and 'Z' value (7.24), and the change in annual savings was 81.56 per cent and 'Z' value (10.54). The overall mean economic impact of Farmer Producer Company on its members, pre and post participation was 55.64 per cent.

Keywords: Farmer Producer Company, Economic Impact, Members

Introduction

Agriculture and allied sectors support livelihoods of 54.6 per cent of India's rural population and account for 17.1 per cent of the Gross Value Added for the year 2017-18 (DAC&FW 2018). The sectors not only account for the overall growth of the economy but also for the reduction of poverty by providing food security to most of the population. For bringing the industry and agriculture closer, the Indian Government has initiated a new

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organizational pattern in agricultural production and marketing to integrate large firms, and encouraged the groups of small and marginal farmers, who are the main manufacturers of agricultural output, and linked with the corporate buyers. Farmers Producer Organizations (FPOs) are collectivization of producers, especially small and marginal farmers. The producer organization has come out as one of the most efficient pathways to address the many challenges of agriculture, more significantly, improved investments, access to inputs, technologies and markets. The Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Govt. of India, has identified Farmer Producer Organization (FPO) registered under the particular provisions of the Companies Act, 1956, as the most appropriate institutional form around which to mobilize farmers and enhance their capacity to jointly leverage their production and selling effectiveness. An expert committee led by noted economist, Y. K. Alagh (2007) recommended, setting up of producer companies in 2002 by incorporating a new Part IXA into the Companies Act of 1956. The objective of the committee was to frame legislation that would enable the incorporation of cooperatives in agriculture as producer companies and conversion of existing cooperatives into producer companies.

Producer organizations have an important role to play in the current agricultural scenario given the increase in total landholdings as a result of increased fragmentation. Due to increased fragmentation and sub-division, farmers with marginal landholdings face a variety of issues relating to credit, market access, and technology adoption. This is a key rationale for the critical discussion around FPOs and their role in promoting sustainable agriculture and forms a core part of the motivation. World Bank, in the World Development Report, 2008 focuses on 'Agriculture for Development' and suggests that for smallholders, producer organizations are essential to achieve competitiveness and, ultimately, their welfare. The main reason for forming the FPO is to deal with all the problems they are facing now and to improve their standard of living by enabling them to receive the exact price which was paid by the end-user or customer by eliminating middlemen. It is important to know the impact of FPOs on their sustainable economic development.

The present study was conducted to know the impact of FPOs on sustainable economic development of members of the FPO. The results of the study highlighted the significant contribution of farmers towards developing the socio-economic conditions of farmers, thus making them self-sufficient and self-reliant. The study provided a reasonable understanding about the facilitating and inhibiting factors in the functioning of these farmer organizations, with suggestions to improve their efficiency and sustainability. The study throws some light on the underlying factors associated with the efficiency of farmer producer companies. The study is expected to be helpful for the development agencies for effective formulation of strategies for initiation and up scaling of farmer organizations in other areas.

Methodology

The study was conducted in Nashik district of Maharashtra state. For the present study, two major FPOs were selected from Niphad and Dindori tahsils as they adequately represent successful and assessable case studies of producer companies. One is Sahyadri Farmer Producer Company Ltd. which is India's largest grape exporting company and India's largest tomato procuring group. The company is also involved in processing activities covering a wide range of products such as fruit juice, ketchup, jam and jelly. The second is Om Gayatri Farmer Producer Company Ltd. which is also involved in manufacturing and wholesaling of fresh fruits and vegetables and this company has emerged as a successful company in raising the nursery and its selling. To study the economic impact of FPOs on their members, 60 members from each FPO, whose membership tenure in the company was a minimum of 3 years, were purposively selected. Thus, a total of 120 members from the two FPOs constituted the sample of the study. An ex post facto research design of social research was used for the present investigation. Survey method was followed for data collection.

The data were collected through personal interviews of respondents at their homes and/ or farm. The economic impact of being a member of the FPO was measured based on parameters, which included changes in employment generation, subsidiary occupation, employment generation, annual income and annual savings. By measuring all the parameters of impact on the economic status, the overall economic impact was calculated. All the parameters and the overall economic impact were measured in per cent using the formula;

$$\text{Per cent change} = \frac{\text{AP score-BP score}}{\text{BP score}} \times 100$$

Where,

AP = Mean score of member after participation in FPC

BP = Mean score of member before participation in FPC

The overall economic impact of the FPO on its members was calculated by summing the score on five dimensions of economic impact and converting into per cent change.

$$\text{Overall economic impact of FPC} = \frac{\Sigma DD1+DD2\text{--------}+DD5}{ND}$$

Where,

ΣDD1+DD2--------+DD5 = Sum of per cent difference in five dimensions of impact.

ND = Number of dimensions

To test the significance of overall economic impact on before and after participation the mean score of FPO members was calculated by "Z test".

Z test is calculated by using the following formula:

$$Z = \frac{|X1 - X2|}{\sqrt{\frac{S_1^{\,2}}{n_1} + \frac{S_2^{\,2}}{n_2}}}$$

Where,

X1 = Mean score of before participation in FPC

X2 = Mean score of after participation in FPC

$S_1^{\,2}$ = Standard deviation of before participation in FPC

$S_2^{\,2}$ = Standard deviation of after participation in FPC

n_1 = Sample size of before participation in FPC

n_2 = Sample size of after participation in FPC

The significance of calculated value is tested with the table value of 0.01 to 0.05 level of probability at $n_1 + n_2 - 2$ degrees of freedom.

Results and Discussion

For calculating the economic impact of farmer producer company on its members, the mean of each indicator was calculated and the difference of before and after participation in FPO was worked out to get the per cent change of that indicator. The per cent change was then considered for determining the extent of impact for the particular indicator. The results are as follows:

1. Change in Employment Generation

Table 1. Distribution of the Respondents according to their Level of Change in Employment Generation

S. No.	Employment Generation	Before (n=120)		After (n=120)		'Z' value
		Frequency	%	Frequency	%	
1	Low (Up to 131)	48	40.00	7	5.83	
2	Medium (132 to 260)	62	51.67	64	53.34	9.58**
3	High (261 and above)	10	8.33	49	40.83	
	Total	**120**	**100.00**	**120**	**100.00**	
		Mean = 155		**Mean = 236**		
	% Change in employment generation = 52.25					

*** Significant at 0.01 level of probability*

From Table 1 it is revealed that over half of the members (51.67%) had a medium level of employment generation, followed by 40.00 per cent and 8.33 per cent members found to have low and high levels of employment generation, respectively before participation in the FPO. The employment status changed to 53.34 per cent members with medium level of employment generation, followed by 40.83 per cent members having a high level of employment generation and 5.83 per cent belonging to low level of employment generation after participation in the farmer producer company. Average man days before participation were 155 days which increased to 236 days after participation. The per cent change in employment generation was 52.25 per cent, which shows highly significant ('Z' value 9.58), which shows the significant change in employment generation for members after participation in the FPO.

The above findings clearly indicate that the FPO had a positive impact on employment opportunities for its members and thus contributed to the family income.

2. Change in Subsidiary Occupation

Table 2. Distribution of the Respondents according to their Change in Subsidiary Occupation

S.No.	Subsidiary Occupation	Respondents (n=120)				'Z' value
		Before		After		
		Frequency	%	Frequency	%	
1	Agriculture + labour	2	01.67	0	00.00	9.46**
2	Agriculture	63	52.50	22	18.33	
3	Agriculture + allied occupation	36	30.00	42	35.00	
4	Agriculture + business	10	8.33	30	25.00	
5	Agriculture + Service	9	07.50	26	21.67	
	Total	**120**	**100.00**	**120**	**100.00**	
	Mean score	**2.67**		**3.81**		
	% Change in subsidiary occupation = 43.12					

*** Significant at 0.01 level of probability*

The data presented in Table 2 indicates that, before participation in FPO, about 52.50 per cent members were engaged in agriculture as their main occupation, followed by 30.00 per cent engaged in agriculture + allied occupation (such as dairy farming, goat farming, poultry) as a supportive endeavour to farming; 8.33 per cent of them were engaged in agriculture + business, while 7.50 per cent were engaged in agriculture + service (both govt and private) and 1.67 per cent of them were engaged in agriculture + labour. After participation in the FPO, about 35.00 per cent of the members were engaged in agriculture + allied occupation as a supportive endeavour to farming, followed by 25.00 per cent engaged in agriculture + business. About 21.67 per cent of the members were engaged in agriculture + service while 18.37 per cent of them remained engaged in agriculture as their main occupation. The per cent change of 43.12 per cent shows that there is a significant change in the subsidiary occupation of members after participation in the FPO. The mean score of subsidiary occupation after participation was 3.81 whereas, it was 2.67 before participation, with a per cent change of 43.12, which was highly significant ('Z' value is 9.46).

The above findings indicate that after participation in the FPO, majority of the members showed a change in their subsidiary occupations. The reason might be, the company helps to build management skills of business and other allied occupations. By conducting the various activities on post-harvest management of grapes most of the members were engaged in raisin making from grapes and its selling which enabled them to get a good price for it and helped to prevent post harvest losses.

3. Change in Annual Income

Table 3. Distribution of the Respondents according to their Level of Change in Annual Income

S. No.	Annual Income (in Rs)	Before (n=120)		After (n=120)		'Z' value
		Frequency	%	Frequency	%	
1	Low (Up to 3,79,777)	43	35.83	5	4.17	9.75**
2	Medium (3,79,778 to 8,08,055)	70	58.34	78	65.00	
3	High (8,08,056 and above)	7	5.83	37	30.83	
	Total	**120**	**100.00**	**120**	**100.00**	
		Mean = 4,54,625		**Mean = 7,33,208**		
	% Change in annual income = 61.27					

*** Significant at 0.01 level of probability*

Table 3 reveals that 58.34 per cent of the members had medium income, 35.83 per cent had low income followed by 5.83 per cent having high incomes before participation in FPO. The scenario changed after participation in the FPO; around 65 per cent of the members had medium income, 30.83 per cent had a high level of income whereas only 4.17 per cent of members were in a low income level. The mean annual income of members after participation increased to Rs.7,33,208 whereas, before participation, it was Rs.4,54,625 with a per cent change of 61.27, which was highly significant ('Z' value is 9.75).

From the findings, it could be concluded that the participation in FPO had an assured impact on the members' increase in income levels. The reason behind it is that the FPO generated additional employment, offered opportunities of engaging in other subsidiary occupations apart from helping FPO member-farmers to get a good price for their produce and by improving their access to quality inputs at lower prices on account of collective action, thus resulting in increased income levels of the members.

4. Change in Annual Expenditure

Table 4. Distribution of Respondents according to their Level of Change in Annual Expenditure

S. No.	Annual Expenditure (in Rs)	Before (n=120)		After (n=120)		'Z' value
		Frequency	%	Frequency	%	
1	Low (Up to 1,72,315)	29	24.17	6	5.00	7.24**
2	Medium (1,72,316 to 3,60,185)	81	67.50	84	70.00	
3	High (3,60,186 and above)	10	8.33	30	25.00	
	Total	**120**	**100.00**	**120**	**100.00**	
		Mean = 2,21,875		**Mean = 3,10,625**		
	% Change in annual expenditure = 40.00					

*** Significant at 0.01 level of probability*

Table 4 reveals that around 67.50 per cent of the members were having a medium level of annual expenditure, 24.17 per cent had a low level of annual expenditure, and 8.33 per cent had a high level of annual expenditure before participation in FPO. After participation in FPO 70 per cent of the members had medium level of annual expenditure, 25.00 per cent of the members had a high level of annual expenditure and only 5.00 per cent of the members belonged to low annual expenditure level. The mean annual expenditure, after participation, was Rs.3,10,625 and it was Rs.2,21,875 before participation, with a per cent change difference of 40.00, which was highly significant ('Z' value is 7.24).

From the above findings, it is concluded that a substantial impact of FPO could be noticed on their members as far as the expenditure on the farm, home assets and other expenditure was concerned, which enabled them to earn additional income and thus afford the purchase of farm implements household consumption needs and meet other demands.

5. Change in Annual Savings

Table 5. Distribution of the Respondents according to their Level of Change in Annual Savings

S. No.	Annual Savings (in Rs)	Before (n=120)		After (n=120)		'Z' value
		Frequency	%	Frequency	%	
1	Low (Up to 1,95,448)	24	20.00	2	1.67	10.54**
2	Medium (195449 to 4,59,884)	88	73.33	52	43.33	
3	High (4,59,885 and above)	8	6.67	66	55.00	
	Total	**120**	**100.00**	**120**	**100.00**	
		Mean = 2,32,750		**Mean = 4,22,583**		
	% Change in annual savings = 81.56					

*** Significant at 0.01 level of probability*

Table 5 reveals that around 73.33 per cent of the members had a medium level of annual savings, followed by 20.00 per cent having a low level of annual savings, while 6.67 per cent had a high level of annual savings before participation in the FPO. After participation in the FPO, 55.00 per cent of the members had a high level of annual savings, followed by 43.33 per cent who had a medium level of annual savings, whereas a mere 1.76 per cent of the members had a low level of annual savings. The mean annual savings of members, after participation, was Rs.4,22,583 whereas, before participation the mean annual savings was Rs.2,32,750 with a per cent change of 81.56, proving to be highly significant('Z' value is 10.54).

It may be concluded that most of the members of the FPO had satisfactory increment in savings after becoming members of the FPO. The reason might be that the FPO helped to improve the production and income of the members. The FPO also provided low-cost inputs and technologies to members leading to reduced expenditure of members and is helping to increase the savings of members of FPOs.

Overall economic impact of FPC

The overall mean difference between after participation and before participation in FPO was 55.64 per cent. It meant the overall economic impact of FPO on its members in terms of impact on economic status was around 56 per cent. Thus, it could be clearly stated that the FPO had a positive and significant impact on its members. These findings are in conformity with the findings of Ahire et al. (2015) and Chopade (2019) as they also found a positive and significant impact of CIGs and FPOs on members respectively.

Conclusion

The study revealed that the economic impact of the FPO was positive and significant on the economic status of its members. The existing positive impact needs to be harnessed by increasing farmers' participation in FPO through increasing the membership of existing FPOs and establishing new FPOs. Participation in FPOs leads to improvement in employment, income, consumption expenditure, investment in productive assets and a reduction in indebtedness. The present study found that the farmers of Nashik district have taken a step forward to reduce their problems by reintegrating themselves through FPOs. They achieved certain goals in the direction of value addition and increased market opportunities. Thus, the state agriculture department should conduct awareness campaigns on the concept of FPO and give wide publicity of such types of successful FPOs. Well-run and stable producer companies have the potential to improve farmers' income, reduce their exposure to risk and contribute to economic empowerment. Due to increase in income, savings and employment opportunities the members of FPOs could enjoy a better economic status in the community.

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