

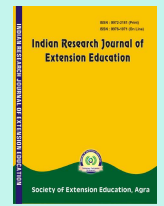


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### Impact of Farmer Producer Organization (FPOs) on Economic Empowerment of the Member Farmers

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#### ABSTRACT

The present study was conducted in Kalahandi district of Odisha. Data was collected from 4 FPOs selected randomly, and from each FPO 5 per cent of the total member farmers were selected by following proportionate random sampling in this way total 123 farmers were selected. Ex-post facto research design was followed. The study revealed that majority of the farmers belonged to middle age category, having primary level of education, nuclear family type, small family size (up to 4 member), majority were male, small farmers (between 2 to 11 acre of land). It was found that majority have medium level of participation in different FPOs activities, economic motivation, risk orientation and market orientation. coming to economic impact there was 50.74 per cent, 44.11 per cent, 17.73 per cent, 8.24 per cent, 43.57 per cent and 24.48 per cent change in annual income, saving, expenditure, debt, no. of earning members and overall economic level respectively after joining the FPOs. It was also found that male farmers of nuclear family of up to 4 members involve mostly agriculture along with horticulture activities of higher both participation in FPOs and market orientation have positive impact on the economic empowerment of the member farmers.

**Key words** : Ex-post Facto research design; Economic motivation; Risk orientation; Market orientation.

In India about 86.08 per cent of the total land holding owned by the small and marginal farmers (Census report 2015-16) and their number shows a raising trend in each year due to continuous fragmentation of land. Small and marginal farmers are facing several challenges like high cost of cultivation, limited access to good quality input, credit facilities, modern technologies, extension services, marketing facility etc. and also frequent crop failure leads to increased dependency on middle man and money lenders. So to overcome these problems there is a need for organizing the farmers into a producer group and to form the Farmer Producer Organization (FPOs) and this concept was first put forth by a panel of expert led by Y.K. Alagh, and by following his recommendation center has introduced the farmer producer companies in the company's act, 1956 (Kakati and Roy, 2018).

Farmer Producer Organization (FPOs) is the collectivization farmers especially small and marginal farmers, into producer organization so that they can address so many challenges in agriculture starting from production to marketing of the produce most importantly improved access to investment, technology, input and market. (Policy process guideline for farmer producer organization (2013).

In recent time government of India giving more importance to the formation of FPOs to make the small and marginal farmers Atmanirbhar and fulfill the goal of Atmanirbhar Bharat and for that recently government of India has announced a budgetary allocation of Rs. 4496.00 crore for five years for the promotion of 10,000 new FPOs (Cabinet Committee on economic affairs (CCEF), PIB Delhi, 2020). So, by seeing the importance of the FPOs in India the present study was undertaken

entitled “Impact of Farmer Producer Organization (FPOs) on Economic Empowerment of the Member Farmers”.

## METHODOLOGY

The present study was conducted in Kalahandi district of Odisha. Out of 32 FPOs working in Kalahandi district 4 FPOs were selected randomly and from each FPO 5 per cent of the total member farmers were selected by following proportionate random sampling method. In this way total 123 farmers were selected. Data was collected with the help of well-structured pre tested interview schedule and the ex-post facto research design was followed for the analysis of data. The economic empowerment was measured with the help of 5 variables which have direct effect on it these are change in annual income, change in saving, change in expenditure, change in debt and change in number of earning members. The percentage change in economic empowerment was calculated by using the following formula as followed by *Chopade (2019)*. Statistical tool correlation and regression used for analysis of data.

$$CEE = \frac{MEEA - MEEB}{MEEB} \times 100$$

Where,

CEE = Change in economic empowerment

MEEA = mean score of economic empowerment after joining FPO

MEEB = mean score of economic empowerments before joining FPO

## RESULTS AND DISCUSSION

*Socio-economic profile of the farmers* : From the Table no 01 it was found that majority (65.0%) of the farmers belonged to middle age (between 30 to 52-year) category followed by 21.1 per cent were old (above 52 years) and 13.8 per cent were young (up to 29 years) age. Coming to the education, majority (29.3%) had primary level of education followed by high school (8.7%), illiterate (16.3%), graduate and above (16.3%), middle (11.4%), can read and write (6.5%) and can read only (1.6%). Majority (53.7%) of the farmers live in nuclear type of family and remaining 46.3 per cent live in joint family. Small size family up to 4 members found in case 50.4 per cent of household followed by medium (between 5

to 6 members) and large size family with 34.1 per cent and 15.4 per cent respectively. More than half of the respondents were male (58.5%) and remaining were female (41.5%). For land holding most of the farmers (63.4%) were medium farmers having 3 to 11 acre of land followed by 26.8 per cent had up to 2 acre of land and remaining 9.8 per cent had more than 11 acre of land holding. Agriculture + horticulture was the major occupation as majority 30.9 per cent farmers involved in it, followed by only agriculture was practiced by 25.2 per cent farmers, agriculture + labour (17.1%), agriculture + animal husbandry (9.7%), agriculture + mushroom cultivation (4.1%) and equal percentage (6.5%) of farmers involved both in agriculture + service and agriculture + business activity.

Towards participation of the farmers in different FPO activities 61.0 per cent farmers had medium level (score between 10 to 13) of participation followed by 24.4 per cent and 1.6 per cent farmers had low (score up to 9) and high level (score more than 13) of participation respectively. In case of economic motivation majority (61.8%) had medium level (score between 17 to 22) motivation followed by low (score up to 16) (19.5%) and high level (score more than 22) (16.3%) of motivation. For risk orientation majority (62.6%) had medium level (score between 14 to 22) of risk followed by low (score up to 13) (24.4%) and high (score more than 22) (13%) risk orientation. And for market orientation 66.7 per cent had medium level (score between 20 to 26) and 17.9 per cent and 15.4 per cent had high (score more than 26) and low level (score up to 19) of market orientation respectively.

*Economic empowerment of the farmers* : The Table 02 shows the distribution of the farmers on the basis of their response towards different variables which measures the economic empowerment of the farmers. The response of the farmers recorded in two forms one was before joining the FPO and after joining the FPO and percentage change was calculated to measure the relative impact.

Annual income of the farmers plays a dominant role in the economic empowerment of the farmers. In the present study it was found that before joining FPO majority (43.9%) of the farmers earn annual income up to 50,000 followed by 43.1 per cent earn between 50,001 to 1 lakh and remaining 13 per cent earn more than 1 lakh but after joining FPOs income of the farmers increases up to 50.74 per cent, support the finding of *Ahire (2015)*

**Table 1. Distribution of the respondents on the basis of their socio-economic profile (N=123)**

Variables	No.	%
<b>Age</b>		
Young Age (up to 29 years)	17	13.8
Middle Age ( Between 30 to 52 years)	80	65.0
Old Age (Above 52 years)	26	21.1
<b>Education</b>		
Illiterate	20	16.3
Can read only	2	1.6
Can read and write	8	6.5
Primary	36	29.3
Middle	14	11.4
High school	23	18.7
Graduate and above	20	16.3
<b>Family type</b>		
Nuclear	66	53.7
Joint	57	46.3
<b>Family Size</b>		
Small size (up to 4 members)	62	50.4
Medium size (between 5 to 6 members)	42	34.1
Large size ( more than 6 members)	19	15.4
<b>Gender</b>		
Male	72	58.5
Female	51	41.5
<b>Land holding</b>		
Small (up to 2 acre)	33	26.8
Medium( between 3 to 11 acre)	78	63.4
Large (more than 11 acre)	12	9.8
<b>Occupation</b>		
Agriculture only	31	25.2
Agriculture + Labour	21	17.1
Agriculture + Animal husbandry	12	9.7
Agriculture + Horticulture	38	30.9
Agriculture + Mushroom Cultivation	5	4.1
Agriculture + Business	8	6.5
Agriculture + Service	8	6.5
<b>Farmers participation in FPOs</b>		
Low (up to score 9)	30	24.4
Medium (between 10 to 13)	75	61.0
High (above 13)	18	14.6
<b>Economic motivation</b>		
Low (up to score 16)	27	19.5
Medium (between 17 to 22)	76	61.8
High (above 22)	20	16.3
<b>Risk orientation</b>		
Low (up to score 13)	30	24.4
Medium (between 14 to 22)	77	62.6
High (above 22)	16	13.0
<b>Market Orientation</b>		
Low (up to score 19)	19	15.4
Medium (between 20 to 26)	82	66.7
High (above 26)	22	17.9

and majority (62.6%) farmers earn annual income between 50,001 to 1 lakh followed by 23.6 per cent earn more than 1 lakh and 13.8 per cent earn up to 50,000 per annum. This occurs as because of collectivization of the farmers in marketing of the produce which help the farmers in getting remunerative price for their produce. The finding similar with the findings of *Singh et al. (2018)*, *Yadav et al. (2022)* and *Singh et al. (2019)*

From the Table 2 it was found that majority of the farmers had medium level of saving (score between 5 to 8) and remaining 33.33 per cent had low level (up to score 4) of saving before joining the FPO. But after joining the FPO all the farmers come under medium (81.3%) and high level (more than 8 score) of saving (18.7%) and there was 44.11 per cent increase in the saving of the farmers. Support the finding of *Kujur (2019)* and *Dewangan (2018)*

It was highlighted in the Table 2 that before joining FPO majority (75.6%) of the farmers had medium level of expenditure (score between 11 to 15) followed by 17.9 per cent had low level (score up to 10) and 6.5 per cent had high level of expenditure (score more than 11). After joining FPO majority of the farmers had medium level (score between 11 to 14) of expenditure and remaining 29.3 per cent had high level (score more than 14) of expenditure and none of them had low level of expenditure. There is 17.73 per cent increase in the expenditure of the farmers. Support the finding of *Chopade (2019)* Expenditure increases because there was increase in farming expenditure, expenditure in food, clothing etc. and also due to increased income expenditure also increased.

Debt was operationally defined as the borrowing of money by the farmers from others or from any other banking institutions. Form the table it was found that before joining the FPO majority of the farmers had medium level of debt (score between 9 to 10) followed by 41.5 per cent and 4.9 per cent had low (up to score 8) and high debt (score above 10) respectively. But after joining the FPO percentage of the farmers in medium level (score between 9 to 10) of debt increased to 58.5 per cent and 26.0 per cent and 15.4 per cent had low (up to score 8) and high level (score above 10) of debt respectively and there was 8.24 per cent increase in the debt of the farmers, this occurs as because of increased expenditure of the farmers, so to meet the expenditure

**Table 2. Distribution of the respondents on the basis of economic empowerment (N=123)**

Economic empowerment	Before joining FPO		After joining FPO		% Change
	No.	%	No.	%	
Change in annual income					
Low (up to 50,000)	54	43.9	17	13.8	50.74
Medium (between 50,001 to 1 lakh)	53	43.1	77	62.6	
High (Above 1 lakh)	16	13.0	29	23.6	
Change in saving					
Low (up to score 4)	41	33.33	0	0.00	44.11
Medium (between score 5 to 8)	82	66.7	100	81.3	
High (above score 8)	0	0.00	23	18.7	
Change in expenditure					
Low (up to score 10)	22	17.9	0	0.00	17.73
Medium (between score 11 to 15)	93	75.6	87	70.7	
High (above score 15)	8	6.5	36	29.3	
Change in debt					
Low (up to score 8)	51	41.5	32	26.0	8.24
Medium (between score 9 to 10)	66	53.7	72	58.5	
High (above score 10)	6	4.9	19	15.4	
Change in no of earning members					
Low (1 member only)	83	67.5	31	25.2	43.57
Medium (2 to 3 members)	33	26.8	81	65.9	
High (more than 3 members)	7	5.7	11	8.9	

need farmers borrow money from several financial institutions.

No of earning members indicates the no of person who earn money by involving in the farming activity. Before joining the FPO in case of majority (67.5%) of farmer family only one member was the earning member

followed by 26.8 per cent had 2 to 3 earning members and 5.7 per cent had more than 3 earning member but after joining FPO majority (65.9%) farmer family had between 2 to 3 earning member followed by 25.2 per cent had only 1 earning member and rest 8.9 per cent had more than 3 earning member. And as a whole there was 43.5 per cent change in number of earning member. The reason behind it was FPO crate more opportunity of for increase the income so there was more involvement of the family member in it. And involvement of women increased and they were also able to create their own FPOs which make them self-sustain.

The result in the Table 3 revealed that majority (67.5%) of the farmers had medium level of overall economic empowerment (score between 8 to 11) followed by 29.3 per cent had low (score up to 7) and only 3.3 per cent had high (score more than 11) level of overall economic empowerment before joining the FPO. But after they became the member of FPO majority (82.1%) had medium level (score between 8 to 11) of economic empowerment followed by 16.3 per cent had high (score > 11) and very less 1.6 per cent had low (score up to 7) level of overall economic empowerment. And there was 24.48 per cent change in overall economic empowerment of the farmers. This increased economic empowerment occurs because of increase in income, saving, expenditure, debt, and increase in the no of earning member after joining the FPOs.

From the Table 4, it was found that family type, family size, gender, occupation, participation in FPOs, and market orientation had positively correlated with the overall economic empowerment of the farmers. Regression analysis depicts that family size was significant at 0.01 level of significance the reason being larger the family size greater will the involvement of

**Table 3. Distribution of the farmers on the basis of their overall economic empowerment (N=123)**

Overall economic empowerment	Before joining FPO		After joining FPO		% change
	No.	%	No.	%	
Low (>score 7)	36	29.3	2	1.6	
Medium (score between 8 to 11)	83	67.5	101	82.1	24.48%
High (score > 11)	4	3.3	20	16.3	



**Table 4. Correlation and regression analysis of different independent variables with overall economic empowerment of the farmers**

Variables	Coefficient of correlation	Regression coefficient
Age	0.05 <sup>NS</sup>	0.003371 <sup>NS</sup>
Education	0.03 <sup>NS</sup>	-0.05734 <sup>NS</sup>
family type	0.385 <sup>**</sup>	0.379416 <sup>NS</sup>
Family size	0.545 <sup>**</sup>	0.327385 <sup>**</sup>
Gender	0.231 <sup>*</sup>	0.716236 <sup>*</sup>
Occupation	0.261 <sup>*</sup>	0.063624 <sup>NS</sup>
Land holding	0.091 <sup>NS</sup>	0.035952 <sup>NS</sup>
Participation in FPO	0.199 <sup>*</sup>	0.094002 <sup>NS</sup>
Economic motivation	0.142 <sup>NS</sup>	-0.01505 <sup>NS</sup>
Risk orientation	0.119 <sup>NS</sup>	0.02991 <sup>NS</sup>
Market orientation	0.294 <sup>**</sup>	0.084557 <sup>*</sup>

R square = 0.44751; \*\* significant at the 0.01 level, \* significant at the 0.05 level; NS= Non significant

the family member in the farming activity and increase the number of earning members thus increase the economic empowerment. Gender was significant at 0.05 level of significance it indicates that male farmers have greater impact on economic empowerment this was because they have more exposure to outside environment and have more control over the farming decision than the female farmers. Market orientation also significance effect on the economic empowerment of the farmers at 0.05 level, it means the higher the marketing knowledge of the farmers helps in getting good profit for their produce and collectivization of the farmers into FPOs increase the marketing efficiency so it significantly affects the economic empowerment.

## CONCLUSION

In the present study it was found that majority of the farmers belonged to middle age category, having primary level of education, nuclear family type of up to 4 members, majority are male, having 3 to 11 acre of land holding, mostly involve in agriculture + horticulture. It revealed that most of the farmers have medium level of participation in FPOs, economic motivation, risk orientation, and market orientation. In economic impact of FPOs on the member farmers there was 50.74 per cent change in income, 44.11 per cent change in saving, 17.73 per cent change in expenditure, 8.24 per cent change in debt, 43.57 per cent change in no of earning members and as whole 24.48 per cent change in overall economic empowerment after joining the FPOs. It was also found that male farmers of nuclear family of up to 4 members involve mostly agriculture along with horticulture activities of higher both participation in FPOs and market orientation have positive impact on the economic empowerment of the member farmers and in particular small family size affect at 0.01 level and male farmers with higher market orientation affect at 0.05 level to the economic empowerment of the farmers through FPOs. So from the above analysis we can say Farmer Producer Organization (FPOs) will act as a catalytic agent to meet the goal of doubling the farmers' income by 2022 particularly for the small and marginal farmers and also make Atmanirbhar Bharat by making farmers Atmanirbhar.

## CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

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