



Research Article

STUDY ON SOCIO-ECONOMIC PROFILE OF MEMBERS AND NON-MEMBERS FARMER OF FPOs IN VARANASI DISTRICT OF UTTAR PRADESH

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Abstract: The study was conducted in the year 2023 with the aim of examining the socio-economic profiles of members and non-members of FPOs in Varanasi district of Uttar Pradesh. Varanasi district was purposively selected for the study, focusing on FPOs that had been in existence for more than 5 years. Among the 29 registered FPOs in the district, four fulfil the criteria which are Kashi Vishwanath Farmer Producer Company Limited (KVFPCL), Rameshwar Farmer Producer Company Limited (RFPCL), Shivansh Krishak Producer Company Limited (SKPCL), and Jayapur Seed Producer Company Limited (JSPCL). A total of 300 respondents were chosen for the study, divided into two groups: 150 members of FPOs and 150 non-members of FPOs. Among the FPO members, 35 were from KVFPCL, 35 from RFPCL, 25 from JSPCL, and 55 from SKPCL. In the non-member group, an equal number of individuals were selected from each identified village to create a control group of 150 non-members. This sampling was done by using stratified random sampling with proportional allocation. The observations from the study revealed that the majority of FPO members were middle-aged, had intermediate education, belonged to the OBC category, had nuclear and medium-sized families and were predominantly marginal farmers with substantial farming experience. Their annual income fell between Rs. 1,00,001 to Rs. 2,00,000, and they had indebtedness of up to Rs. 40,000. These farmers had access to good market facilities and displayed a medium level of participation in group activities and information seeking behaviour. These findings shed light on the distinct socio-economic profiles within the FPO member community, providing valuable insights for future agricultural development initiatives.

Keywords: Socio-economic profiles, FPOs, Varanasi, Stratified random sampling, Market facilities

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Introduction

In the last couple of years, the agricultural sector has experienced substantial and robust growth. This sector, which is the largest employer in the country, made a significant contribution, accounting for 18.8 percent of the Gross Value Added (GVA) during the 2021-22 fiscal year. Its growth rate was 3.6 percent in the 2020-21 fiscal year, and it further increased to 3.9 percent in the 2021-22 fiscal year. The expansion of related industries like livestock, dairy, and fisheries has been instrumental in propelling the overall growth of the agricultural sector [1]. As per the agricultural census conducted in 2015-16, a significant 86.21 percent of Indian farmers fall into the category of small and marginal landholders. India, despite having just 2.4 percent of the world's total land area, accommodates an impressive 18 percent of the global population. In contrast, the per capita availability of agricultural land in India is only 0.12 hectares, which is notably lower than the global average of 0.29 hectares.

The diminishing availability of agricultural land poses a substantial challenge to Indian agriculture, making farming less economically feasible for farmers. As per a report by the National Sample Survey Office (NSSO) in 2011, more than half of India's small and marginal farmers find themselves burdened by debt. These farmers, who possess limited land holdings, encounter difficulties in achieving high annual agricultural production and generating surplus for the market, ultimately leading to a cycle of indebtedness. To tackle these challenges, various alternatives have been explored. One promising approach to improve farming efficiency, enable information sharing, deliver agricultural inputs, facilitate marketing, and enhance profit generation involves mobilizing farmers by forming collective groups.

The Government of India has actively promoted a novel form of such collective farming entities called Farmer Producer Organizations (FPOs) under the Companies Act of 1956. A Farmer Producer Organization (FPO) is an officially recognized entity established by primary producers, such as farmers, milk producers, fishermen, weavers, rural artisans, and craftsmen [4]. In India, the promotion of FPOs is carried out by entities such as SFAC, NABARD, state governments, and various other organizations. During the 12th five-year plan, a significant strategy for achieving inclusive agricultural growth has been the promotion and reinforcement of FPOs. The primary purpose of Farmer Producer Organizations (FPOs) is to bring together small and marginal farmers at various levels within a state in order to enhance the livelihoods of their members [5-6]. FPOs are collective associations of rural producers who join as members to collectively pursue shared interests and engage in technical and economic activities that benefit their members. Additionally, they establish relationships and partnerships with stakeholders and entities within their economic and institutional context. This context is important when studying the socio-economic profiles of both members and non-members of Farmer Producer Organizations.

Material and Methods

The present study employed a descriptive research design and purposively selected the Varanasi district as the research location. The rationale behind this selection was the significant number of Farmer Producer Organizations (FPOs) that have been registered in the city over the past five years, with many of them having substantial equity or capital and a specific focus on vegetable crops.

In Varanasi district, there are a total of 29 FPOs, which have either been established by various organizations or are self-promoted. For the present study, we selected those FPOs that had been operational for more than five years. Out of these, only four FPOs met the aforementioned criteria: Kashi Vishwanath Farmer Producer Company Limited (KVFPCL), Rameshwar Farmer Producer Company Limited (RFPCL), Shivansh Krishak Producer Company Limited (SKPCL), and Jayapur Seed Producer Company Limited (JSPCL). A total of 300 respondents were selected through stratified random sampling with proportional allocation, consisting of 150 members of FPOs and 150 farmers who don't have FPOs membership. From the members of FPOs, a sample of 150 individuals was chosen using a stratified random sampling method with proportional allocation. Specifically, 35 members were selected from both KVFPCL and RFPCL, 25 members from JSPCL, and 55 members from SKPCL. An equal number of non-members of FPOs were selected from identified villages as a control group. The data was analyzed with the help of appropriate statistical tools like frequency and percentage methods.

Results and Discussion

Age of members and non-members respondents of FPOs

The results presented in the [Table-1] revealed that majority of the members of FPOs fell into the middle-age category, comprising 62.00 per cent of respondents, followed by the old-age group at 29.33 percent, and the young-age group at 8.67 percent. In contrast, among non-member farmers, a significant majority were belonging to the middle-age category, accounting for 77.33 per cent, followed by the old-age group (16.00%), and the young-age category (10.67%) [8-10].

The villages where FPOs were set up mostly have farmers between 30 and 50 years age group. The similar trend was observed among the respondents where 62 per cent of farmers were belonging to middle age group. Hence, it can be concluded that the farmers around this age group, naturally want to improve their farms and take care of their families; and were wilfully joined the FPOs.

Table-1 Distribution of the respondents on the basis of age (n=300)

SN	Age	Members (n=150)		Non- members (n=150)	
		f	%	f	%
1	Young (15 to 29)	13	8.67	16	10.67
2	Middle Age (30 to 50)	93	62.00	110	73.33
3	Old Age (Above 50)	44	29.33	24	16.00
	Total	150	100.0	150	100.0

Educational status of members and non-members respondents of FPOs

The results presented in the [Table-2] revealed that a near about one third (32 %) of the members had intermediate level of education, followed by high school level education (24.66%), and 19.34% of member had completed graduation or higher education. Additionally, 11.34% had education up to middle school, 6.67% were illiterate, 3.33% were functionally literate, and only 2.66% had completed primary school. In contrast, among non-member, the majority had educational backgrounds up to high school (29.33%), followed by intermediate (27.33%), middle school (16.67%), and graduation or higher education (10.67%). A smaller percentage had education only up to primary school (6.67%), while 5.33% were illiterate, and 4.00% were functionally literate. Farmers who have received a higher level of education tend to be more inclined to accept changes within the social system. Many of these educated farmers have joined FPOs in the hope of improving their socio-economic and psychological well-being.

Table-2 Distribution of the respondents on the basis of educational status (n=300)

SN	Education	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	Illiterate	10	6.67	8	5.33
2	Functional literate	5	3.33	6	4.00
3	Primary School	4	2.66	10	6.67
4	Middle School	17	11.34	25	16.67
5	High School	37	24.66	44	29.33
6	Intermediate	48	32.00	41	27.33
7	Graduation and above	29	19.34	16	10.67
	Total	150	100.0	150	100.0

Caste category of members and non-members respondents of FPOs (n=300)

As [Table-3] indicates the largest portion of members falls under the OBC

category, comprising 72.67%, followed by the general category at 14.67%, SC at 11.33%, and ST at 1.33% [11]. In contrast, among non-member farmers, the majority are classified as OBC (52.66%), followed by the general category at 28.67%, SC at 16.00%, and ST at 2.67%.

Regarding member farmers, the dominance of OBC castes in FPO memberships is likely attributable to their widespread presence in the operational region. A comparable pattern was also noticed within the non-member category.

Table-3 Distribution of the respondents on the basis of caste category (n=300)

SN	Caste Category	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	General	22	14.67	43	28.67
2	OBC	109	72.67	79	52.66
3	SC	17	11.33	24	16
4	ST	2	1.33	4	2.67
	Total	150	100	150	100

Family size of members and non-members respondents of FPOs

[Table-4] reveals that among member families, almost half of them fall into the small family category (47.33%), followed by medium families at 43.33%, and large families at 9.34%. In contrast, among non-members, the most of respondents come from small families (56.00%), followed by medium-sized families (36.66%), with only 7.34 per cent have large families.

Table-4 Distribution of the respondents on the basis of family size (n=300)

SN	Family Size	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	Small family (Up to 5 members)	71	47.33	84	56
2	Medium family (6 to 10 members)	65	43.33	55	36.66
3	Large family (>11 members)	14	9.34	11	7.34
	Total	150	100	150	100

Family type of members and non-members respondents of FPOs

[Table-5] illustrates that a majority of FPO members belong to nuclear families, accounting for 57.33 percent, while 42.67 percent are part of joint families [9]. Similarly, among non-members, the majority also come from nuclear families, comprising 70.67 percent, with 29.33 percent being part of joint families.

The inclination towards smaller households among both FPO members and non-members could be attributed to the influence of generational differences within farming families. This generational gap has likely played a role in shaping the preference for smaller family sizes.

Table-5 Distribution of the respondents on the basis of family type (n=300)

SN	Family Type	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	Nuclear Family	86	57.33	106	70.67
2	Joint Family	64	42.67	44	29.33
	Total	150	100.0	150	100.0

Land Holding of members and non-members respondents of FPOs

The results from [Table-6] provide insights into the farming profiles of both FPO members and non-members. Among FPO members, the majority (78.67%) are classified as marginal farmers, indicating that they operate on smaller agricultural land holdings. Small farmers make up about 16.66 per cent of the member group, while semi-medium farmers constitute a smaller portion at 4.67 per cent. Interestingly, there were no FPO members categorized as medium or large-scale farmers. In a similar vein, non-member farmers also exhibit a similar trend. The majority of non-member farmers, specifically 90.66 per cent, belong to the category of marginal farmers, who typically operate on smaller land holdings. Small farmers represent 8.00 per cent of the non-member group, and semi-medium farmers constitute a minor portion at 1.34 per cent. Remarkably, there were no respondents among non-members classified as medium or large-scale farmers. These findings align with the broader agricultural landscape, where small and marginal land holdings, typically ranging from 0.00 to 2.00 hectares, dominate the agricultural sector, making up a substantial majority at 86.08 per cent of the total number of agricultural holdings, as reported in the Agriculture Census of 2015-16. In contrast, larger land holdings, categorized as 10.00 hectares and above, represent a significantly smaller proportion, constituting only 0.57 per cent of the total number of agricultural holdings.

Table-6 Distribution of the respondents on the basis of landholding (n=300)

SN	Land holding	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	Marginal (below 1 ha.)	118	78.67	136	90.66
2	Small (1 to 2 ha.)	25	16.66	12	8
3	Semi-medium (2 to 4 ha.)	7	4.67	2	1.34
4	Medium (4 to 10 ha.)	0	0	0	0
5	Large (>10 ha.)	0	0	0	0
	Total	150	100	150	100

Farming experience of members and non-members respondents of FPOs

The result in Table-7 provides insights into the farming experience of both member and non-member farmers. Among member farmers, a notable portion, constituting 58.00%, had extensive farming experience. Additionally, 31.34 per cent had medium-level experience, while 10.66% had low farming experience. Given that a majority of these farmers belonged to the middle to old age groups, it is plausible that they have accumulated significant farming knowledge over the years [12]. In contrast, among non-members, the majority had high farming experience, accounting for 52.67 per cent, with 34.67 per cent having medium experience, and 12.66 per cent having low experience.

Table-7 Distribution of the respondents on the basis of farming experience (n=300)

SN	Farming experience	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	Low farming experience (up to 10)	16	10.66	19	12.66
2	Medium farming experience (11 to 20)	47	31.34	52	34.67
3	High farming experience (>20)	87	58	79	52.67
	Total	150	100	150	100

Annual income of members and non-members respondents of FPOs

Table-8 provides insights into the annual income levels of both FPO members and non-members. Among FPO members, 44.66 per cent had a medium annual income ranging from Rs. 1,00,000 to 2,00,000, followed closely by 42.67 per cent who had a low annual income of up to Rs. 1,00,000, and 12.67 per cent reported a high annual income exceeding Rs. 2,00,000 [13].

Conversely, among non-members of FPOs, the majority, at 77.34 per cent, had a low annual income of up to Rs. 1,00,000, followed by 16.00 per cent with a medium annual income ranging from Rs. 1,00,000 to 2,00,000, and 4.66 per cent reported a high annual income exceeding Rs. 2,00,000. The table results suggest that most FPO member farmers had medium levels. Participation in FPOs has proven beneficial for these members in terms of securing a reliable income from their farming endeavors. The procurement processes, negotiation for lower input and associated costs such as transportation and marketing, and the development of business plans for members, including the establishment of agricultural enterprises, have all demonstrated significant positive effects.

Table-8 Distribution of the respondents on the basis of annual income (n=300)

SN	Annual Income	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	Low Annual Income (Upto Rs. 1,00,000/-)	64	42.67	116	77.34
2	Medium Annual Income (Rs. 1,00,001/- to 2,00,000/-)	67	44.66	27	16
3	High Annual Income (> Rs. 200,000/-)	19	12.67	7	4.66
	Total	150	100	150	100

Indebtedness of members and non-members respondents of FPOs

The results in Table-9 reveal that a majority of FPO members, specifically 65.33%, had low levels of indebtedness, which means they owed up to Rs. 40,000. Additionally, 29.34 per cent of FPO members had medium levels of indebtedness, falling within the range of Rs. 40,001 to Rs. 80,000, while a smaller percentage of 5.33 per cent had high levels of indebtedness, exceeding Rs. 80,000.

In contrast, among non-members of FPOs, the majority, comprising 73.34 per cent, had low levels of indebtedness, with debts of up to Rs. 40,000. Furthermore, 21.33 per cent of non-members had medium levels of indebtedness, falling within the range of Rs. 40,001 to Rs. 80,000, and 5.33 per cent of non-members had high levels of indebtedness, exceeding Rs. 80,000.

The availability of loans from cooperative and nationalized banks has been beneficial for FPO members in accessing credit facilities. Notably, the incidence of

deliberate loan defaults among members has been decreasing, primarily attributed to the enhanced economic returns achieved through farming with FPO support. FPOs have played a significant role in instilling a sense of responsibility among their members, encouraging them to maintain high standards in their farming practices.

Table-9 Distribution of the respondents on the basis of indebtedness (n=300)

SN	Indebtedness	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	Low Indebtedness (Upto Rs. 40,000/-)	98	65.33	110	73.34
2	Medium Indebtedness (Rs. 40,001/- to 80,000/-)	44	29.34	32	21.33
3	High Indebtedness (> Rs.80,000/-)	8	5.33	8	5.33
	Total	150	100	150	100

Market facilities of members and non-members respondents of FPOs

From the results given in [Table-10], it was found that significant disparities in the availability of various facilities between FPO members and non-members, which have noteworthy implications.

For FPO members, the comprehensive access to market information facilities (100 per cent) indicates that they are well-informed about market dynamics, prices, and demand, which enables them to make informed decisions regarding their agricultural produce. Furthermore, over half of the members have access to storage facilities (53.33%), which can contribute to better post-harvest management, reducing wastage, and potentially enhancing income. The presence of processing units (24.66%) among members suggests that they may have opportunities to add value to their produce, diversify income sources, and contribute to food processing industries. Remarkably, a large majority of FPO members have access to transportation facilities (87.33%), which is crucial for getting their produce to the market efficiently. Moreover, the high percentage of members insured under the Pradhan Mantri Fasal Bima Yojana (PMPBY) (76.33%) demonstrates their proactive approach towards risk management in agriculture.

In contrast, non-members of FPOs have comparatively lower access to these facilities. While market information facilities are accessible to a substantial portion (66.00%), the lack of storage facilities (17.33%) and processing units (6.00%) may hinder their ability to optimize their agricultural activities. Additionally, the relatively lower percentage of non-members with transportation facilities (68.00%) suggests potential challenges in reaching markets on time. The lower participation rate in the PMPBY insurance scheme (40.66%) among non-members may indicate a need for greater awareness and adoption of risk mitigation measures. Overall, the data underscores the positive impact of FPOs in enhancing access to essential facilities among their members, ultimately contributing to improved agricultural practices, income generation, and risk management.

Table-10 Distribution of the respondents on the basis of market facilities (n=300)

SN	Item	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	Information facilities	150	100	99	66
2	Storage facilities	80	53.33	26	17.33
3	Processing facilities	37	24.66	9	6
4	Transportation facilities	131	87.33	102	68
5	Insurance facilities	120	76.66	61	40.66

Participation in group/ communities activities of members and non-members respondents of FPOs

It can be seen from [Table-11] that it provides insights into the participation levels of FPO members and non-members in group/community activities. Among FPO members, the majority (70.00 per cent) actively participated in group/community activities, indicating a strong engagement with collective endeavors. Additionally, 20.00 per cent of members exhibited a high level of participation, while 10.00 per cent had a lower degree of involvement in such activities [14]. In contrast, non-members of FPOs displayed different patterns of participation. The majority (59.33 per cent) had a medium level of engagement in group/community activities, while 26.67 per cent exhibited a lower level of participation.

Interestingly, 14.00 percent of non-members displayed a high level of participation in these collective activities. The variations in participation levels between FPO members and non-members underscore the role of FPOs in promoting and facilitating collective activities among farmers. FPOs create an environment conducive to collaboration, which can lead to higher participation rates among their members. Conversely, non-members' participation is influenced by a range of individual motivations and contextual factors.

Table-11 Distribution of the respondents on the basis participation in group/community activities (n=300)

SN	Participation in group/ community activities	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	Low (8-13)	15	10	40	26.67
2	Medium (14-19)	105	70	89	59.33
3	High (20-24)	30	20	21	14
	Total	150	100	150	100

Information seeking behaviour of members and non-members respondents of FPOs

Results in [Table-12] show that the information-seeking behavior of FPO members and non-members. Among FPO members, 53.33% had a medium level, 28.67% had a high level, and 18.00% had a low level of information-seeking behaviour [15]. In contrast, non-members showed a different pattern: 64.00% had a medium level, 32.00% had a low level, and only 4.00% had a high level of information-seeking behavior. Medium to high levels of information-seeking behavior were observed among member farmers due to the continuous efforts of FPOs in providing reliable information from credible sources, including government departments and private agencies. The emergence of new information sources and their effectiveness have also played a significant role in motivating farmers to seek out new information and update their knowledge on topics like market information and modern cultivation practices.

Table-12 Distribution of the respondents on the basis information seeking behaviour (n=300)

SN	Information seeking behaviour	Member (n=150)		Non- members (n=150)	
		f	%	f	%
1	Low (8-13)	27	18	48	32
2	Medium (14-19)	80	53.33	96	64
3	High (20-24)	43	28.67	6	4
	Total	150	100	150	100

Conclusion

The present study concludes that the significance of FPOs in the Varanasi district, particularly in empowering small and marginal farmers to enhance their socio-economic status and agricultural practices. The study sheds light on the potential benefits and opportunities for FPO members, which include improved access to markets and resources, as well as the development of essential skills and attitudes conducive to agricultural success. It also highlights the critical role of FPOs in addressing the challenges faced by rural farmers, ultimately contributing to the overall growth and development of the agricultural sector in the Varanasi district of Uttar Pradesh.

Application of research: The study aims to gain a comprehensive understanding of the contrasting socio-economic profiles of individuals who are members of FPOs and those who are not. By examining various socio-economic indicators such as age, education, caste, income, land holdings, market facilities, and farming experience, this research seeks to shed light on the impact of FPO membership on the livelihoods and well-being of farmers in the region.

Research Category: Agricultural Extension

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