



# **Assessment of Profile Characteristics and Factors Determining the Membership of Farmers in Tamil Nadu Banana Producer Company (TNBPC) a Study in Trichy district of Tamil Nadu**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## **ABSTRACT**

The majority of Indian farmers face issues such as decreased agricultural production, lower resource use efficiency, and lower farm revenue. Farmer Producer Organizations (FPOs) which are based on the concepts of economies of scale and collective action, have arisen as a golden ray of hope for alleviating these challenges. In light of these facts, the present study was carried out to examine socio-personal, socio-economic, socio-psychological characteristics and the factors determining their membership with the sample respondents of 132. The sample was selected through proportionate random sampling from five villages of Thottiyam block in Trichy district of Tamil Nadu. The findings revealed that majority of the farmers were middle aged with most of the members having been educated and medium level of annual income. Farming was the primary

occupation for majority of the members with big farm size and medium level of annual income, farmer groups experience, training, institutional support and extension agency contact. There also exists medium level of market perception, group interaction, group leadership, self -confidence, attitude towards group activity, participation in group activities, achievement motivation and group cohesiveness. The findings also revealed that getting better price for their produce was the major economic factor determining their membership followed by participatory decision making as the major social factor, to make use of government schemes as major organizational factor and providing market linkages as the major marketing factor determining their membership. FPO operations must be promoted and supported in order to instill competition among farmers and raise their share and profit in agricultural enterprises.

*Keywords: Banana; Economic; factors; FPO; personal; Psychological.*

## 1. INTRODUCTION

India is a predominantly agricultural nation with small and marginal farmers accounting for over 87 percent of total agricultural households. Most farmers lack sufficient infrastructure to take advantage of economies of scale and they generate a little amount of marketable surplus, which keeps them reliant on traditional channels for marketing [1] They are frequently led into debt cycles as a result of their lack of money due to poor remunerative prices, price fluctuations, poor marketing, intermediaries, and lack of channels and means to engage in the global value chains [2-4]. They lack organization in order to obtain a fair market price, which is a severe problem in Indian agriculture. To increase their negotiating power in the current value chain, it is crucial to link them with new collaboration models and forms [5]. Farmers can bypass the obstacles by forming Farmer Producer Organizations (FPOs). According to Rondot [5] "The producer organizations (POs) are formal rural organizations whose members are smallholder farmers who organize themselves with the objective of improving farm income through improved production, marketing, and local processing activities". Producer Organizations (POs) help their members improve their economic standing by offering agricultural inputs, finance, value addition, and marketing services [6]. In addition, forming an FPO can provide timely and enough credit, exposure tours, trainings, engagement with various resource institutes, and linkage to forward and backward institutes. This has a positive impact on the farming community's socioeconomic situation and the FPO's are often hailed as important contributors to alleviating poverty and food security [7]. Around 5000 FPOs exist in India today, which were established through various initiatives of the Indian government which

includes SFAC, NABARD, state governments, and other institutions. The national government has planned to develop and promote 10,000 new farmer producer organizations in the country under the scheme "Formation and Promotion of 10,000 new Farmer Producer Organizations" with a budgetary allocation of R.s. 6,865 crore in order to transform farming into a sustainable enterprise (Ministry of Finance, press release 2020). The government is taking immense effort to promote PO's thereby helping farmers to get better price. Though POs have a strong track record, their long-term viability has been a problem since the outset. If farmers do not join POs, all of this effort will be meaningless. As a result, it was thought important to investigate the key factors behind their membership which will aid in informing policymakers, extension personnel, and others in mobilizing farmers to join PO's. There have been few studies that look at the factors that influencing the farmers to become the members of the producer organization in developing countries, so the current study on Factors determining their membership in FPC was taken up.

## 2. MATERIALS AND METHODS

The current investigation was carried out using the Ex post facto research design. The list of FPCs issued by Tamil Nadu Small Farmers Agribusiness Consortium (TNSFAC) has been examined and those FPC's which are performing well and with more than three years of running were sorted out. From that sorted list Tamil Nadu Banana Farmer Producer Company(TNBPC) was purposively selected for the study as this particular company have been working since 2014 and was awarded as the best performing FPC by state Department of Agricultural Marketing and Agri Business in January 2021. Trichy district was purposively selected for the

study as the company have a registered office in thottiyam block of the same district with large number of registered members. In Trichy district thottiyam block was purposively selected as this block has more number of member producers. This FPC is connected to about 12 villages in the block. Out of those, five villages (Seelaipillayarputhur, Srinivasanallur, Alagarai, Sriramasamudram and Unniyur) were randomly selected for the study which constitute totally about 265 members out of which fifty percent of the population have been chosen as the survey respondents and the sample size was set to 132. The selection of respondents from each village were done using the proportionate random sampling method and the respondents from each villages viz Seelaipillayarputhur (20), Srinivasanallur (33), Alagarai (22), Sriramasamudram (30) and Unniyur (27) were found. The data for the study was obtained using a pretested structured interview schedule. Mean and standard deviation were used to categorize the respondents whereas frequency and percentage analysis were used to quantify the respondents according to their socio personal, socio economic and socio psychological characters. Mean score and ranking were used to rank the factors in the order that determine their membership in TNBPC.

### 3. RESULTS AND DISCUSSION

#### 3.1 Profile Characteristics

##### 3.1.1 Socio – personal characteristics: Profile characteristics

From the Table 1 it is reflected that more than three-fourth of the respondent members (76.52%) were old aged category followed by middle (16.67%) and young aged (6.81%) respectively. The reason for the above trend might be that the youth were moving to various economic ventures and jobs which made them less involved in farming. Similar findings have been reported by Ahire et al. [8] and Elizabeth and Meena [9]. In case of literacy most of the member farmers were literate with 32.57 per cent having high school education followed by higher secondary education (22.72%), middle school education (13.63%), collegiate education (10.60%), functionally literate (6.06%) and illiterate (3.03%). It is clear from the findings that most of the members have their basic education which may help them in better understanding of how FPOs works and the benefits they could get

out of it. The findings was in accordance with the findings of Babu, T. M et.al [10]. In case of occupation status nearly two- thirds (63.63%) of the respondents were doing farming as their only occupation followed by 31.06 per cent doing farming and business, 3.78 per cent engaging in farming and service and least percent (1.51%) were doing farming and labor activities. About 63.64 per cent of the respondents were only engaged in farming since most of the respondents were old aged category who had more than a decade of experience in farming and still want to continue them. This was in agreement with the findings of Sangameswaran et al. [11].

The information in Table 1 showed that majority of the respondents (81.06%) had medium level of experience in farmers group followed by 17.42 per cent with high experience and 1.51 per cent with low experience in farmers group. The result is in accordance with the findings of Kavin and Divya [12]. From the table it is clear that two-third of the member respondents (66.67%) had medium level of institutional support followed by low and medium with 18.18 per cent and 15.15 per cent respectively. Institutions such as the State Department of Horticulture, Krishi Vigyan Kendra - Trichy and National Research center for Banana were providing technical assistance ranging from crop production to marketing and value addition. The members were well informed about the various schemes and also received credit assistance when they are in need. The findings are in accordance with the findings of Mathuabirami and Kalaivani [13]. In case of training undergone by the members more than two-third of the members (68.93%) had medium level of training followed by high and low level with 18.94 per cent and 12.12 per cent respectively. The members of the TNBPC have undergone various training programs to learn about better farming practices, post- harvest handling and marketing linkages. This was in agreement with the findings of Babu, T [10]. In case of extension agency contact nearly three-fourth of the respondents (73.48%) had medium level of contact with the extension agents followed by high and low with 18.18 per cent and 8.33 per cent respectively. The reason for medium to high level of extension contact might be that members of the FPO were able to frequently contact the scientists in order to obtain the knowledge on various aspects from production to marketing the finding was in line with the findings of Dechamma, S. [14].

### 3.1.2 Socio – economic characteristic

From Table 2, it is evident that majority of the members (77.27%) had a medium level of annual income followed by 15.90 per cent with high and 6.81 per cent with low income respectively. The reason for medium level of income might be that most of the members were involved in farming alone with majority of them adopting mono cropping. It is in agreement with the findings of Golwad and Kamble [15] and Babu, T. M et.al

[10]. Regarding farm size nearly forty per cent (39.40%) of the members were small farmers followed by 31.06 per cent of the respondents were medium farmers. About 17.42 per cent of the respondents were big farmers followed by 12.12 per cent of the respondents were marginal farmers. The reason for this trend could be that the FPO's targeted group were small and marginal farmers who were not able to sell their produce at remunerative prices. The finding was in line with the findings of Chopade et al. [16].

**Table 1. Socio – personal characteristics of TNBPC members  
(n=132)**

S.No	Variables	Category	Frequency (f)	Percent (%)
1.	Age	Young	9	6.81
		Middle	22	16.67
		Old	101	76.52
2.	Education status	Illiterate	4	3.03
		Functionally literate	8	6.06
		Primary education	15	11.36
		Middle school education	18	13.63
		High school education	43	32.57
		Higher secondary education	30	22.72
		Collegiate education	14	10.60
3.	Occupation status	Farming alone	84	63.63
		Farming + Agricultural labor	2	1.51
		Farming + Business	41	31.06
		Farming + Service	5	3.78
4.	Experience in farmers group	Low experience	2	1.51
		Medium experience	107	81.06
		High experience	23	17.42
5.	Institutional support	Low	24	18.18
		Medium	88	66.67
		High	20	15.15
6.	Training undergone	Low	16	12.12
		Medium	91	68.93
		High	25	18.94
7.	Extension Agency Contact	Low	11	8.33
		Medium	97	73.48
		High	24	18.18

**Table 2. Socio – economic characteristics of TNBPC members**

**n = 132**

S.No	Variables	Category	Frequency (f)	Percentage (%)
1.	Annual income	Low	9	6.81
		Medium	102	77.27
		High	21	15.90
2.	Farm size	Marginal farmer (less than 2.5 acres)	16	12.12
		Small farmer (2.51 – 5 acres)	52	39.40
		Medium farmer (5.1 – 10 acres)	41	31.06
		Big farmer (more than 10 acres)	23	17.42

### 3.1.3 Socio – Psychological characteristics

It is evident from the Table 3 that more than half of the respondents (53.03%) had medium level of market perception followed by low and high perception with 24.24 per cent and 22.72 per cent respectively. Regarding group interaction more than two-third of the respondents (67.42%) had a medium level of group interaction followed by low and high group interaction with 16.66 per cent and 15.90 per cent respectively. The reason might be that the group interaction serves to keep the group active and as the result of this interaction the members may have the opportunity to offer their perspectives on various aspects of banana cultivation. Better decision-making and problem-solving are also aided by increased group interaction. In case of group leadership nearly three-fourth of the respondents (71.21%) had a medium level of group leadership followed by low and high with 15.15 per cent and 13.63 per cent respectively. The possible reason for majority of the members having medium level of group leadership may be due to group leaders genuine concern for the wellbeing of their members and the maintenance of group peace. This is in accordance with the findings of Mathuabirami and Kalaivani [13]. When it comes to self-confidence more than two-third of the respondents (69.70%) had medium level of self-confidence followed by low and high with 18.18 per cent and 12.12 per cent respectively. The explanation for this could be that the FPC interventions helped the member farmers in improving their conduct in terms of expressing a positive desire to work, not comparing themselves to others, and taking responsibility for their own activities which in turn result in increased self-confidence. The findings were in accordance with the findings of Darshan [17].

The data from Table 3 revealed that about 59.85 per cent of the member respondents had medium attitude towards group activity followed by one-third of the respondents (25.76%) with high attitude and 14.39 per cent with low attitude towards group activity. The reason for medium to high level of attitude towards the activity of group could be attributed to their knowledge of the direct and indirect benefits of joining a group. The results were in accordance with the findings of Naveen Kumar and Rathakrishnan [18]. In case of participation in group activities more than half of the member respondents (57.58%) had medium level of participation in group activities followed by more than one-fourth of the respondents (30.30%) with high and 12.12 per

cent with low participation. The reason could be that the increased awareness of various community and extension activities, as well as the motivating efforts of TNBPC to help farmers to achieve socio-economic development, resulted in a medium to high level of participation, with many of them believing that their socio economic and psychological condition had improved as a result of their participation. The findings were in accordance with the findings of Darshan [17]. In terms of achievement motivation nearly three-fourth of the respondents (70.45%) had medium level of motivation followed by nearly one-fourth of the respondents (21.97%) with high level of motivation and 7.58 per cent with low level of motivation. The reason for medium to high level of achievement motivation might be that the TNBPC has opened up new opportunities for members to practice farming as a business, encouraging them to take on new challenges and improve their level of living. The finding was in accordance with the findings of Sharma and Varma [19]. When it comes to group cohesiveness nearly three-fourth of the respondents (73.48%) had medium level of group cohesiveness followed by high (14.39%) and low (12.12%) level of group cohesiveness. The reason for medium to high level of group cohesiveness could be that it provides members with more satisfaction and allows them to attain their objectives. Also, if they are more cohesive, they will be enticed to work together, resulting in increased group productivity. This is in accordance with the findings of Mathuabirami and Kalaivani [13].

## 3.2 Factors Determining their Membership

### 3.2.1 Economic factors

It is evident from the Table 4 that getting the better price for their produce (2.97) was the major economic factor which contribute to their membership. The main intension of every farmer behind their membership in any FPC would be getting better and remunerative price for their produce. As members of TNBPC were mostly big farmers who had large quantity of produce with them and unable to sell those produce for good prices as it is perishable commodity and the supply would be more in the market at time so they were in need of guidance on marketing and exposing themselves to different marketing opportunities to get a better price. Having linkage with the credit agencies were ranked second

(2.83) by the members as it is comparatively easy to approach the credit agencies as the member of FPC than as an individual farmer followed by other factors such as reducing expenditure on input cost (1.42), improving the family material hardships (1.16) and to improve the loan repaying capacity respectively (1.03).

**Table 3. Socio – Psychological characteristics of TNBPC members**

n = 132				
S.No	Variables	Category	Frequency (f)	Percentage (%)
1.	Market Perception	Low	32	24.24
		Medium	70	53.03
		High	30	22.72
2.	Group interaction	Low	22	16.66
		Medium	89	67.42
		High	21	15.90
3.	Group Leadership	Low	20	15.15
		Medium	94	71.21
		High	18	13.63
4.	Self Confidence	Low	24	18.18
		Medium	92	69.70
		High	16	12.12
5.	Attitude towards group activity	Low	19	14.39
		Medium	79	59.85
		High	34	25.76
6.	Participation in group activities	Low	16	12.12
		Medium	76	57.58
		High	40	30.30
7.	Achievement motivation	Low	10	7.58
		Medium	93	70.45
		High	29	21.97
8.	Group cohesiveness	Low	16	12.12
		Medium	97	73.48
		High	19	14.39

**Table 4. Factors determining membership in TNBPC**

n = 132			
S.No	Factors	Mean score	Rank
1.	<b>Economic factors:</b>		
	To get better price	2.97	I
	To improve family material hardship	1.16	IV
	To have linkages with credit agencies	2.53	II
	To improve loan repaying capacity	1.03	V
2.	<b>Social factors</b>		
	To reduce expenditure on input cost	1.42	III
	Inspiration from progressive farmers	2.25	IV
	Peer group influence	2.54	II
	Social recognition	2.35	III
3.	<b>Organizational factors</b>		
	Participatory decision making	2.74	I
	Dissemination of improved technologies	2.73	III
	Providing need based training	2.82	II
	Supply of quality inputs in time	1.26	IV
4.	<b>Marketing factors</b>		
	To make use of government schemes	2.95	1
	Providing market linkages	2.88	I
	Access to market information	2.73	II
	Promotion of value addition	1.84	III
	Elimination of middleman	1.17	IV

### 3.2.2 Social factors

From the Table 4 it could be inferred that participative decision making was ranked first (2.74) by the members. They use the FPO as a platform to discuss the recent technologies, make participative discussions in marketing of their produce, which in turn help them to fetch better price for their produce. Participative and joint decision making may facilitate better exposure among the members, regarding all aspects from production to marketing followed by peer group influence ranked second with a mean score of 2.54. The respondents have good social contact with their peers, which also influenced them to join in the FPO. Social recognition (2.35) and inspiration from progressive farmers (2.25) were ranked third and fourth among the social factor in determining their membership.

### 3.2.3 Organizational factors

It is clear from the Table 4 that to make use of government schemes was ranked first (2.95) by the members as there are many schemes which government were providing to the farmer groups than to the individual farmers which is the major organizational factors contributing to their membership followed by need based training (2.82), as TNBPC were providing their members with various trainings programs in various aspects of value addition followed by dissemination of improved technology (2.73) and supply of quality inputs in time (1.26).

### 3.2.4 Marketing factors

It is evident from the Table 4 that providing market linkage was ranked first (2.88) by the members, as the major intension of the farmer for joining the group is to get better price for their produce by providing them with forward and backward market linkage followed by access to market information on time (2.73) as the timely information helps them to have a high negotiation power which in turn result in better income followed by factors such as promotion of value addition (1.84), and elimination of middleman problem (1.87).

## 4. CONCLUSION

The FPOs help farmers enhance their bargaining position with buyers by lowering transaction costs, bringing them closer to the market and allowing them to profit from agriculture. To get better price, participatory decision making, to

make use of government schemes and better market linkages were found to be the major factors which contribute to their membership. Factors which contribute to their membership and the farmers' socio-personal, socio – economic and socio-psychological characteristics should be taken into account by FPOs while developing their programs since they will provide insight and aid in the selection of appropriate action that will have an influence on members. Small producers will benefit from the support of institutions such as Farmer Producer Organizations, which will help them make their agricultural enterprises more sustainable and profitable in order to enhance their socioeconomic situation.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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