

## Original Research Article

# Sustainability of Farmer Producer Organisation's – Major constraints in functioning of FPO in Tamil Nadu

Comment [U1]: Organizations (no apostrophe)

### ABSTRACT

The concept of group formation and collectivization by organizing at the regional level is very important in the era of globalization and free trade liberalization. FPOs organize small farmers for forward linkages such as collective, marketing, processing, and market-driven agriculture production, as well as backward linkages for inputs like seeds, fertilizers, credit, insurance, knowledge, and extension services. Even though FPOs are doing well, still they face lot of challenges and struggle for their sustainability. Keeping these factors in view, the current study was done to determine the constraints, that Farmers' Producers Organisation (FPO) faced for sustainable functioning. The study was conducted in Pennagaram block of Dharmapuri district in Tamil Nadu. 100 members of FPO were selected for the study. The interview schedule is used to collect the data. Rank Based Quotient (RBQ) was used to analyse the data collected. The results showed that lack of initiatives among the FPO members (83.83%) under personal constraints, lack of well-developed processing facilities (90.00%) under infrastructural constraints, lack of crop insurance facilities (93.00%) under economic constraints, high transportation cost (95.17%) under marketing constraints, weak economic status to run the organisation (86.38%) under organisational constraints and lack of timely, cheap and good quality inputs (94.00%) under technical constraints were the major constraints faced by the FPO members. Initiation among the FPO members, well developed processing and marketing facilities in their villages, provision of crop insurance for affected farmers, tax exemption, inclusion of their millets production in ration shops for supply are the suggestions expressed by the FPOs for their sustainability.

Comment [U2]: This name (Farmers Producers Organisation) should be written in the text where the abbreviation first appears

Comment [U3]: You use the term "under constraints" a lot (and wrongly). It's enough only - constraints.

*Keywords: Constraints, Sustainability, Marketing, Processing, Farmer Producer Organization*

### 1. INTRODUCTION

In India, agriculture continues to be the main source of income. India's population relies on agriculture for about 45% of its employment, small farm holdings and marginal holdings play a well-known role in India in reducing poverty [2]. Developing rural entrepreneurship through the idea of collectivization or group initiation through local level organization is crucial in the current era of globalization and trade liberalization in order to transform the simple producer of agricultural products into the producer and seller of the product. In order to improve sustainability in food production and marketing for revenue generation, a workable technology transfer system is needed [6]. Farmer groups can improve small farmers' access to modern technology, market information and business services in rural areas, all of which have a positive impact on the

productivity, intensification and commercialization of smallholder agriculture and have a positive impact on producers' incomes [1]. With the aid of a marketing Non-Governmental Organization called POPI (Producer Organization Promoting Institutions), the farmers can organize and run the FPOs.

As the FPO is being established, POPI offers advice and assistance to the farmers. As the FPO develops and acquires the managerial and technical skills required for effective operation, POPI gradually withdraws its support, enabling the farmers to independently maintain and run their businesses [10]. As grassroots entrepreneurial and developing organizations, the FPOs are going through a significant transition period from securing the maximum farmers' welfare to engaging in commercial activities. Although the government supported FPOs, they had trouble starting new enterprises and giving member farmers the benefits, they needed. As a result, it is crucial to support both the individual member farmers and the FPOs [4].

The current condition of the FPO appears insufficient to handle the challenges faced by the FPO members in the context of changing agricultural production technology and its commercial scenario, notwithstanding the concern shown by policy planners for the sustainability of the FPO. Numerous limitations, including those related to the individual, technological, financial, infrastructural and competitive market, affect the majority of FPOs. In order to increase the revenue of farmers, particularly small and marginal farmers, it must take the shape of a one-stop shop that provides solutions. Here, the study was designed to identify various constraints such as personal constraint, infrastructural constraint, economic constraint, marketing constraint, organizational constraint and technical constraints, which prevent farmers from receiving the full benefits of aggregation.

**Comment [U4]:** Try to rephrase and use shorter sentences. In this sentence you have used the abbreviation FPO three times, which is not grammatically correct.

## 2. METHODOLOGY

The Ex-post facto research design was used for this study. The Dharmapuri district was purposively selected for the study because of its higher production and area under millets (Source: Directorate of Economics and Statistics, Government of India, 2018-2019). NABARD project has been assigned as a resource agency for the promotion of one FPO in Dharmapuri district of Tamil Nadu, which is supported by the Tamil Nadu Small Farmers Agribusiness Consortium (TNSFAC) to raise the income level of the farmers by improving the knowledge and facilitating supply inputs and linking to markets for outputs. There are 7 millet FPOs in the Dharmapuri district. Among this Pennagaram block was selected purposively because of the highest production and area of millets (Source: <https://www.tnagrisnet.tn.gov.in/>). The selected FPO was Navadhanya Farmers Producer Company Limited (NFPCL). A total of 1001 members with sixty-five Farmer Interest Group's (FIGs) were in NFPCL. Out of the thirty-two villages under NFPCL four villages were purposively selected based on the highest number of FIGs. Totally 168 members were selected in the NFPCL in the selected four villages. By adopting the proportionate random sampling, fifty nine percent of the members were selected from each village for the study. It could be observed from Fig. 1, the total sample size consisted of 100 were selected from Ettikuttai (44), Paruvadhanahalli (12), Madam (23) and K. Agraharam (21). The data were collected using a pre-tested structured interview schedule through the personal interview method. The data were calculated through Rank Based Quotient (RBQ) method to draw definite conclusion. The following formula for calculating the Rank Based Quotient (RBQ) is,

**Comment [U5]:** In the introduction you noted the bibliographic references with numbers (1, 2, 3...). Here you pass the direct source. How is that fair after all?

**Comment [U6]:** Idem

$$RBQ = \frac{\sum_{i=1}^n (Fi)(n+1-i)}{N \times n} \times 100$$

Where,

$F_i$  = Frequency of respondents for  $i^{th}$  rank

$N$  = Number of respondents

$n$  = Number of ranks

$\sum_{i=1}^n$  = directs to sum multiple factors.

$\sum_{i=1}^n (Fi)(n+1-i) = F_1 \times n + F_2 \times n - 1 + F_3 \times n - 2 \dots \dots \dots F_n \times 1$

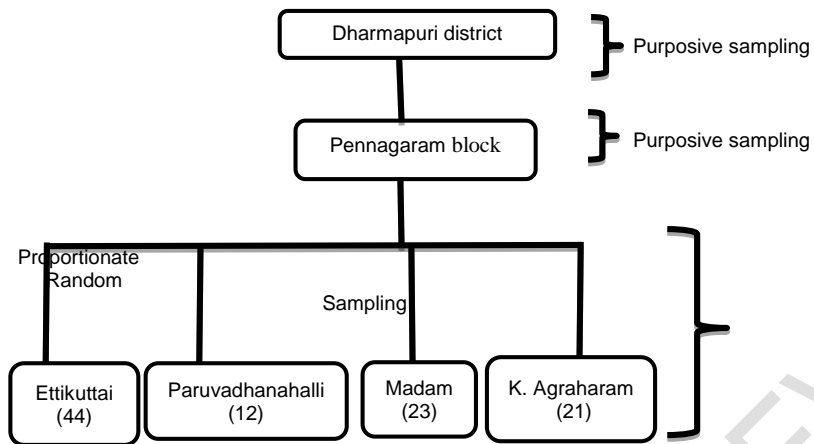


Figure1. Sample selected from villages in Dharmapuri district of Tamil Nadu

### 3. RESULTS AND DISCUSSION

During the survey, FPO members expressed different constraints on FPO. Those constraints were categorized as personal constraints, infrastructural constraints, economic constraints, marketing constraints, organizational constraints and technical constraints. The results are discussed in the following tables.

#### 3.1 Personal constraints

The data presented in Table 1 states that the most significant constraint faced by the FPO members, were (83.83%) lack of initiatives among the FPO members and ranked first. The FPO members are not taking much initiatives due to lack of knowledge on functioning of FPO. The second major constraint faced by the FPO members are increased workload (70.33%), as the members have to avoid multitasking. The third constraint, (63.33%) of the FPO members faced lack of time, due to the less utilization of time management tools and maintaining work life balance. Another constraint identified was lack of co-operation, ranking fourth with (53.67%), the primary barrier to cooperation among FPO members is culture. Lack of family support was faced by the FPO members (45.17%) as fifth constraint, because their family members don't accept the circumstances in FPO and the sixth constraint (41.17%) was lack of interest in attending meeting, as the FPO members don't aware about the benefits of attending meeting with experts.

Table 1. Personal constraints faced by the FPO members

S.No.	Statements	RBQ	Rank
1.	Increased workload	70.33	II
2.	Lack of co operation	53.67	IV
3.	Lack of family support	45.17	V
4.	Lack of initiatives among the FPO members	83.83	I
5.	Lack of time	63.33	III
6.	Lack of interest in attending meeting	41.17	VI

**Comment [U7]:** This chapter is called - Results and Discussion. I have read the results very carefully, but I have found absolutely no discussion of the results obtained. Please review this aspect!

## B. Infrastructural constraints

The data presented in Table 2 reveals that the majority (90.00%) of the FPO members were faced lack of well-developed processing facilities as a major constraint, due to the technology and equipment upgrade, followed by lack of modern machineries (73.20%) of respondents as the second constraint, as the members need to put more earnings to buy the modern machineries. The third constraint faced by the respondents was lack of well-developed storage facilities (59.20%), because of temperature and humidity control. The produce was sensitive to environmental conditions, invest in climate-controlled storage facilities to maintain optimal temperature and humidity levels. Another constraint faced by the FPO members was lack of maintenance of machineries (52.60%) as fourth constraint, as the members don't have any training and skill development about the machineries. The fifth constraint faced by the respondents was lack of proper training hall (43.60%). In addition to a physical training hall, consider integrating online training options for remote participants or as a supplementary resource.

**Table 2. Infrastructural constraints faced by the FPO members**

S.No.	Statements	RBQ	Rank
1.	Lack of proper training hall	43.60	V
2.	Lack of well-developed storage facilities	59.20	III
3.	Lack of well-developed processing facilities	90.00	I
4.	Lack of maintenance of machineries	52.60	IV
5.	Lack of modern machineries	73.20	II

## C. Economic constraints

The data presented in Table 3 highlights that lack of crop insurance facilities was the major constraint faced by the FPO members (93.00%), followed by (78.14%) of the respondents faced lack of bank official's support. The FPO members favoured non-institutional credit sources over institutional ones as a result, the respondents claimed that applying for a loan is a very time-consuming process because they must fill out numerous forms, copy documents, get those documents verified, and gather other relevant documents including meeting minutes, photographs, and proofs of identification. Another constraint faced by the FPO members was lack of adequate accounting system is the third constraint (68.57%). The fourth constraint faced by the FPO members was unaware of credit facilities (56.86%), followed by (47.00%) of the FPO members faced difficulty in external loans as the fifth constraint. High interest burden from financial institute was the sixth constraint faced by the FPO members (36.71%). The seventh constraint faced by the FPO members was lack of sufficient finance (23.57%), for setting up and operating a newly established FPOs.

**Table 3. Economic constraints faced by the FPO members**

S.No.	Statements	RBQ	Rank
1.	Lack of sufficient finance	23.57	VII
2.	Unaware of credit facilities	56.86	IV
3.	Lack of crop insurance facilities	93.00	I
4.	Difficulty in external loans	47.00	V
5.	Lack of adequate accounting system	68.57	III

6.	High interest burden from financial institute	36.71	VI
7.	Lack of bank officials support	78.14	II

#### D. Marketing constraints

The data presented in Table 4 showed that high transportation cost was the major constraint faced by the FPO members (95.17%), followed by (80.33%) of the members faced fluctuation of price in every year. Another constraint was gaps in supply chain management (64.50%). The fourth constraint faces by the FPO members was the lack of latest market information (51.67%). Delayed payments were the fifth constraint faced by the FPO members (44.17%), which prevent them from making investments in their subsequent harvest. The sixth constraint is lower price for produce faced by the FPO members (30.17%). Since the FPOs are not given enough financing, they lack the financial stability to produce innovative products and services and keep their market position.

**Table 4. Marketing constraints faced by the FPO members**

S.No.	Statements	RBQ	Rank
1.	Lack of latest market information	51.67	IV
2.	Delayed payments	44.17	V
3.	Gaps in supply chain management	64.50	III
4.	High transportation cost	95.17	I
5.	Lower price for produce	30.17	VI
6.	Fluctuation of price in every year	80.33	II

#### E. Organisational constraints

The data presented in Table 5 states that weak economic status to run the organisation was the major constraint faced by the FPO members (86.38%). As the FPO members have unfair work assignment. The second constraint faced by the respondents was inefficient monitoring (73.25%), as they were inability to manage the organization's finances, followed by few executive members handle all responsibilities as the third constraint (68.50%). Inadequate managerial capacity ranked fourth (58.38%), because the FPO members have insufficient managerial ability to run the FPO. Absence of forward and backward integration was the fifth constraint faced by the FPO members (53.88%). Another constraint is political influence (42.63%) of the members were ranked as sixth constraint. Unequal work delegation ranked as the seventh constraint (39.50%). The eighth constraint faced by the FPO members was inadequate staff at grass root level (23.50%).

**Table 5. Organisational constraints faced by the FPO members**

S.No.	Statements	RBQ	Rank
1.	Unequal work delegation	39.50	VII
2.	Absence of forward and backward integration	53.88	V
3.	Weak economic status to run the organisation	86.38	I
4.	Inadequate managerial capacity	58.38	IV

**Comment [U8]:** Here things are unclear. What do you mean, FPO members have an incorrect task? Please explain this, otherwise it is understood that this mechanism (FPO) does not really make sense...

5.	Inefficient monitoring	73.25	II
6.	Political influence	42.63	VI
7.	Few executive members handle all responsibilities	68.50	III
8.	Inadequate staff at grass root level	23.50	VIII

#### F. Technical constraints

The data presented in Table 6 reveals that the first constraint associated with the lack of timely, cheap and good quality inputs (94.00%). As the members have bulk purchasing and negotiation of inputs, followed by improper identification of needs (77.60%) were ranked as second constraint. Another constraint identified was lack of awareness on importance of grading and packing (61.20%) which is ranked as the third constraint, due to the FPO members have lack of knowledge on packaging and grading of processed products. The fourth constraint was lack of computer knowledge which makes them unable to drive benefits of available ICT tools (41.20%), because the FPO members don't have any basic knowledge on computer training and user-friendly ICT tools. The fifth constraint, ranking at (30.20%) was inadequate technical guidance.

**Table 6. Technical constraints faced by the FPO members**

S.No.	Statements	RBQ	Rank
1.	Improper identification of needs	77.60	II
2.	Lack of awareness on importance of grading and packing	61.20	III
3.	Inadequate technical guidance	30.20	V
4.	Lack of timely, cheap and good quality inputs	94.00	I
5.	Lack of computer knowledge which makes them unable to drive benefits of available ICT tools	41.20	IV

#### 4. CONCLUSION

A suitable technology transfer mechanism is required to improve sustainable food production and marketing for income enhancement as a result of globalization. The members of FPOs have taken advantage of opportunities in farmer aggregation to lower their input and transportation costs and expand their capacity on innovative technologies for greater production. A potential alternative for effective farming, information sharing, input delivery, marketing, and profit-making is mobilizing farmers for group action through developing farmer's organizations, which are an essential part of delivery systems and enable them to make decisions collectively for income enhancement through local agricultural development. In order to achieve sustainable growth and reach its full potential, it is necessary to manage these constraints so that they do not have a substantial negative impact on the businesses. Government officials and policy makers must prioritize taking into account these limits in order to scale up the FPO and improve its performance. A policy should be developed to make the FPO the organization at the farm level responsible for spreading agricultural and agribusiness expertise among the farmers.

#### REFERENCES

1. Chauhan JK, Adhikary A, Pradhan K. Identification of Constraints Associated with Farmers' Producer Organisations (FPOs). International Journal of Current Microbiology and Applied Sciences. 2021;10(01): 1859-1864.

**Comment [U9]:** Bibliographic references 3, 5, 7, 8, 9 and 11 are not found in the text. Please review this issue!

2. Chopade SL, Kapse PS, Dhulgand VG. Constraints Faced by the Members of Farmer Producer Company. *International Journal of Current Microbiology and Applied Sciences*. 2019; 8(8): 2358-2361.
3. Chowdary CHM, Shanthasheela M, Rajasekharan R, Vasanthi R. Assessing the Performance of Farmer Producer Organizations: A Study in Prakasam District of Andhra Pradesh, India. *Asian Journal of Agricultural Extension, Economics & Sociology*. 2022; 40(10): 351-357.
4. Ghate PD, Khandave SS, Kolgane BT. The benefits availed by the members from FPOs and suggestions to overcome constraints faced by them. *The Pharma Innovation Journal*. 2023; 12(4): 855-857.
5. Jena A, Dehury NR. Constraints Perceived in Functioning of Farmer Producer Organisations (FPOs) by the Member Farmers of Odisha State of India. *Indian Journal of Natural Sciences*. 2022; 13(74): 47773-47779.
6. Katiki S, Asokhan M, Karthikeyan C, Patil SG. Constraints Perceived and Suggestions Offered by the members of Tribal Farmer Producer Groups (FPGs). *Madras Agricultural Journal*. 2021; 108(special), 1.
7. Mathuabirami V, Kalaivani S. Constraints in functioning of tribal FIGs and suggestions offered for effective functioning of tribal FIGs. *Journal of Pharmacognosy and Phytochemistry*. 2021; 10(2): 120-122.
8. Phapale M, Khandave SS, Gurav KV. Constraints faced by the members of board of directors of Farmers Producers Organization's. *The Pharma Innovation Journal*. 2021; 10(11): 83-84.
9. Shree AN, Vaishnavi P. Challenges faced by Farmer Producer Organisations (FPOs) - A Review. *Journal of Agricultural Extension Management*. 2022; 23(1): 131-138.
10. Tiwari N, Upadhyay R. Constraints faced by the members of the farmer producer organizations in Udaipur district of Rajasthan. *The Pharma Innovation Journal*. 2021; 10(12): 320-324.
11. Vedasri R, Mishra SN. Linking Farmer Producer Organizations with Other Markets – A Sustainable Change in Marketing of Farm Produce. *International Journal of Environment and Climate Change*. 2022; 12(12): 1425-1437.