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### Factors affecting member farmers' participation: An evidence from Farmer Producer Organizations (FPOs) in Koppal district of Karnataka

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#### Abstract

Farmer Producer Organizations (FPOs) serve as an institutional mechanism to bring smallholder farmers together, strengthen their collective bargaining power and address gaps across the agricultural value chain. The success and long-term sustainability of FPOs largely depend on active member participation and the factors that encourage farmers to engage with the organization. The present study assessed the level of member participation across different organizational activities and identified the major economic, institutional and personal factors influencing participation. A descriptive cross-sectional research design was adopted in Koppal district of Karnataka, with primary data collected from member farmers of selected FPOs through non-probability sampling. Data were collected using structured personal interviews and analyzed using frequencies, percentages, mean scores and rank order analysis. The findings indicated that most member farmers had a medium level of participation, while a smaller proportion showed low and high levels of participation. Among the different activities, procurement of farm inputs through the FPO, exercising voting rights and attending Annual General Meetings were the areas where members participated more actively. In contrast, involvement in leadership roles and value-addition or processing activities was comparatively limited. Economic benefits and profitability through collective marketing emerged as the strongest factors encouraging member participation, followed by access to quality inputs and better market opportunities. Farm size and distance to the FPO facility were found to have relatively less influence. The findings suggest that FPOs need to move beyond providing basic inputs and facilitating routine organizational activities by giving greater attention to member involvement in governance, strengthening primary processing facilities and developing transparent and profitable collective marketing channels.

**Keywords:** Collective marketing, farmer producer organizations, input procurement, Koppal, member participation, socio-economic determinants

#### Introduction

Indian agriculture continues to face structural constraints, including fragmented landholdings, rising operational input costs, price volatility and high post-harvest losses. Agriculture in India is largely dominated by the small and marginal landholdings, severely restricting the individual bargaining capacity of producers in input as well as product markets. To overcome these scale-induced disadvantages, organizing farmers into Farmer Producer Organizations (FPOs), specifically Producer Companies under the Companies Act, has become a central agricultural policy strategy in India.

Farmer Producer Organizations (FPOs) play an important role in helping farmers collectively market their produce, procure quality agricultural inputs at better prices, reduce the influence of intermediaries, and establish stronger market linkages. However, the long-term success and commercial sustainability of an FPO largely depend on the active involvement of its members. In many cases, farmers show limited interest in FPO activities and participate mainly when

purchasing inputs, while their involvement in collective marketing, decision-making, governance, and value addition remains relatively low.

Previous studies have shown that farmer's participation in collective enterprises is influenced by several factors, including economic benefits, transparency in institutional functioning, effectiveness of governance, and the availability of resources at the farm level. <sup>Error! Reference source not found.-Error!</sup>

<sup>Error! Reference source not found.</sup> Although the FPO institutional framework has expanded considerably in Karnataka, there is still limited empirical evidence on how farmers participate in different FPO activities and what factors influence their participation, particularly in the northern dry zone. Therefore, this study examines the extent of farmer's participation in various FPO activities and identifies the factors influencing their participation in FPOs across Koppal district of Karnataka.

#### Materials and Methods

##### Study Area and Sampling Framework

The study was conducted in Koppal district of Karnataka, which falls under the semi-arid northern dry zone of the state. The district is characterized by the cultivation of a variety of field crops as well as commercial horticultural crops such as pomegranate, mango, citrus, tomato, and onion. A descriptive cross-sectional research design was used for the study. A total of 250 farmers who were members of FPOs were selected from 12 operational FPOs across the district. The respondents were selected using a non-probability purposive sampling method, taking into consideration the available membership records and accessibility of farmers during the field survey.

### Data Collection Instrument and Measurement

Primary data were generated through structured interview schedule

- 1. Participation Level:** Measured across 13 core organizational activities on a 5-point continuum: Never (1), Rarely (2), Sometimes (3), Frequently/Often (4) and Always (5). Overall participation levels were categorized into Low, Medium and High based on standard class intervals.
- 2. Factors Influencing Participation:** Evaluated through 20 structured economic, organizational and socio-demographic indicators adopted from available literature using a 5-point rating scale: Not Influential (1), Slightly Influential (2), Moderately Influential (3), Highly Influential (4) and Very Highly Influential (5).

### Analytical Framework

The composite score (CS) for each item was calculated as:

$$CS = \sum (f_i \times w_i)$$

where  $f_i$  is the frequency of respondents in the  $i^{\text{th}}$  category and  $w_i$  is the assigned numerical weight (1 to 5). The Mean Score ( $\bar{X}$ ) was computed as:

$$\bar{X} = CS / N$$

where N is the total sample size (N = 250). Ranks were assigned based on descending mean values.

### Ethical Approval and Informed Consent

Before conducting the interview, verbal informed consent was obtained from all participating farmers. The farmers were clearly informed about the purpose of the study and their participation was entirely voluntary. They were also assured that the information provided by them would be kept confidential and used only for research purposes.

### Results

#### Socio-Economic Profile of Member Farmers

The socio-economic profile of the 250-member farmers showed that the majority of respondents were male (78.80%; n=197), while females accounted for 21.20% (n=53). Regarding age, farmers aged 51 years and above represented the largest group (40.00%), followed by middle-aged farmers (36.00%) and younger farmers (24.00%). In terms of landholding size, marginal farmers with less than 1.0 ha accounted for 38.00% of the respondents, while small farmers with 1.01–2.0 ha constituted 34.80%, indicating that most FPO members belonged to the marginal and small farmer categories. Farming was the main occupation for a substantial majority of respondents (82.80%). Nearly half of the farmers (49.20%) reported an annual income ranging from ₹1,00,000 to ₹3,00,000. With regard to the duration of FPO membership, 38.00% of farmers had been members for 7–10 years, followed by 35.20% who had been associated with FPOs for 4–6 years and 26.80% for 1–3 years.

#### Member Participation in FPO Activities

Table 1 shows the statement-wise participation of respondents across the 13 evaluated activities.

**Table 1:** Participation of Member Farmers in FPO Activities (n = 250)

| S.N. | Participation Activities                  | 1   | 2   | 3  | 4   | 5  | CS   | Mean | Rank |
|------|-------------------------------------------|-----|-----|----|-----|----|------|------|------|
| 1    | Purchasing farm inputs through FPO        | 0   | 0   | 67 | 104 | 79 | 1012 | 4.05 | I    |
| 2    | Voting in FPO elections                   | 0   | 20  | 67 | 88  | 75 | 968  | 3.87 | II   |
| 3    | Attending Annual General Meetings (AGM)   | 0   | 50  | 37 | 87  | 76 | 939  | 3.76 | III  |
| 4    | Selling produce through FPO               | 0   | 42  | 85 | 66  | 57 | 888  | 3.55 | IV   |
| 5    | Attending regular FPO meetings            | 0   | 55  | 93 | 56  | 46 | 843  | 3.37 | V    |
| 6    | Collective procurement operations         | 0   | 62  | 89 | 44  | 55 | 842  | 3.37 | VI   |
| 7    | Group marketing activities                | 0   | 62  | 93 | 58  | 37 | 820  | 3.28 | VII  |
| 8    | Attending training programmes             | 0   | 101 | 73 | 67  | 9  | 734  | 2.94 | VIII |
| 9    | Participating in decision-making          | 0   | 102 | 81 | 58  | 9  | 724  | 2.90 | IX   |
| 10   | Sharing ideas and suggestions in meetings | 0   | 104 | 81 | 56  | 9  | 720  | 2.88 | X    |
| 11   | Participating in exposure visits          | 63  | 92  | 86 | 9   | 0  | 541  | 2.16 | XI   |
| 12   | Value addition and processing activities  | 103 | 91  | 47 | 9   | 0  | 462  | 1.85 | XII  |
| 13   | Taking up leadership responsibilities     | 111 | 76  | 54 | 9   | 0  | 461  | 1.84 | XIII |

Purchasing farm inputs ranked first ( $\bar{X} = 4.05$ ), with no respondents indicating non-participation. Democratic participation via voting ( $\bar{X} = 3.87$ ) and AGM attendance ( $\bar{X} = 3.76$ ) followed. Produce marketing through the FPO secured the fourth rank ( $\bar{X} = 3.55$ ). In contrast, participation in exposure visits ( $\bar{X} = 2.16$ ), value addition/processing ( $\bar{X} = 1.85$ ) and leadership roles ( $\bar{X} = 1.84$ ) recorded the lowest mean scores.

**Table 2:** Distribution of Member Farmers Based on Overall Participation Level (n = 250)

| Category | Score Range | Frequency | Percentage (%) |
|----------|-------------|-----------|----------------|
| Low      | < 35        | 62        | 24.80          |
| Medium   | 35 – 48     | 132       | 52.80          |
| High     | > 48        | 56        | 22.40          |

|       |  |     |        |
|-------|--|-----|--------|
| Total |  | 250 | 100.00 |
|-------|--|-----|--------|

As shown in Table 2, 52.80% of member farmers exhibited a medium overall level of participation, while 24.80% and

22.40% fell into low and high participation categories, respectively.

### Factors Influencing Farmer Participation in FPOs

Table 3 presents the statement-wise ranking of determinants governing participation.

**Table 3:** Factors Influencing Farmer's Participation in FPO Activities (n = 250)

| S. N. | Particulars                                | 1 | 2  | 3   | 4   | 5   | CS   | Mean | Rank  |
|-------|--------------------------------------------|---|----|-----|-----|-----|------|------|-------|
| 1     | Economic benefits from FPO                 | 0 | 0  | 14  | 0   | 236 | 1222 | 4.89 | I     |
| 2     | Profitability through collective marketing | 0 | 0  | 10  | 17  | 223 | 1213 | 4.85 | II    |
| 3     | Better market access                       | 0 | 0  | 14  | 44  | 192 | 1178 | 4.71 | III   |
| 4     | Availability of quality inputs             | 0 | 0  | 15  | 43  | 192 | 1177 | 4.71 | IV    |
| 5     | Government support and schemes             | 0 | 0  | 8   | 75  | 167 | 1159 | 4.64 | V     |
| 6     | Timely information dissemination           | 0 | 0  | 13  | 95  | 142 | 1129 | 4.52 | VI    |
| 7     | Trust in FPO management                    | 0 | 0  | 11  | 118 | 121 | 1110 | 4.44 | VII   |
| 8     | Storage and processing facilities          | 0 | 0  | 15  | 227 | 17  | 1038 | 4.04 | VIII  |
| 9     | Access to credit facilities                | 0 | 0  | 24  | 211 | 15  | 991  | 3.96 | IX    |
| 10    | Operational transparency                   | 0 | 0  | 35  | 190 | 25  | 990  | 3.96 | X     |
| 11    | Support from FPO leaders                   | 0 | 0  | 54  | 172 | 24  | 970  | 3.88 | XI    |
| 12    | Training and capacity building             | 0 | 0  | 82  | 142 | 26  | 944  | 3.78 | XII   |
| 13    | Digital communication facilities           | 0 | 0  | 96  | 138 | 16  | 920  | 3.68 | XIII  |
| 14    | Transport facilities                       | 0 | 19 | 114 | 117 | 0   | 848  | 3.39 | XIV   |
| 15    | Peer influence / fellow farmers            | 0 | 26 | 156 | 68  | 0   | 792  | 3.17 | XV    |
| 16    | Family encouragement                       | 0 | 19 | 179 | 52  | 0   | 783  | 3.13 | XVI   |
| 17    | Past experience with collectives           | 0 | 24 | 191 | 35  | 0   | 761  | 3.04 | XVII  |
| 18    | Educational level                          | 0 | 17 | 212 | 21  | 0   | 754  | 3.02 | XVIII |
| 19    | Farm size                                  | 0 | 16 | 234 | 0   | 0   | 734  | 2.94 | XIX   |
| 20    | Distance to FPO office                     | 0 | 49 | 191 | 10  | 0   | 711  | 2.84 | XX    |

Direct economic benefits ( $\bar{X} = 4.89$ ) and profitability through collective marketing ( $\bar{X} = 4.85$ ) were identified as the leading drivers, followed by market access ( $\bar{X} = 4.71$ ) and input availability ( $\bar{X} = 4.71$ ). Exogenous and personal attributes such as past collective experience ( $\bar{X} = 3.04$ ), education level ( $\bar{X} = 3.02$ ), farm size ( $\bar{X} = 2.94$ ) and distance to the FPO facility ( $\bar{X} = 2.84$ ) exerted the least influence.

**Table 4:** Distribution of Member Farmers Based on Overall Factor Influence Level (n = 250)

| Category         | Frequency | Percentage (%) |
|------------------|-----------|----------------|
| Low Influence    | 47        | 18.80          |
| Medium Influence | 147       | 58.80          |
| High Influence   | 56        | 22.40          |
| Total            | 250       | 100.00         |

Overall, 58.80% of respondents reported a medium level of factor influence, with 22.40% and 18.80% reporting high and low levels, respectively (Table 4).

### Discussion

The findings suggest that member engagement in FPOs in Koppal district is largely focused on services that provide immediate and direct benefits rather than on long-term governance and value-addition activities. Participation was highest in farm input purchases ( $\bar{X} = 4.05$ ), supporting earlier studies that identify input supply as one of the main entry points for farmers into collective organizations. Error! Reference source not found.-Error! Reference source not found. Bulk procurement of agricultural inputs not only helps farmers obtain inputs at relatively lower costs but also provides greater assurance regarding their quality and reduces the risk of purchasing spurious agrochemicals. At the same time, relatively high participation in voting ( $\bar{X} = 3.87$ ) and attendance at Annual

General Meetings (AGMs) ( $\bar{X} = 3.76$ ) indicates that members are interested in participating in the democratic and oversight functions of their FPOs.

In contrast, participation in leadership responsibilities ( $\bar{X} = 1.84$ ) and value-addition and processing activities ( $\bar{X} = 1.85$ ) was comparatively low. This may be associated with the financial and infrastructural limitations faced by FPOs, particularly in semi-arid regions, where limited access to capital and inadequate primary processing facilities can restrict opportunities for members to become involved in value-addition activities. Error! Reference source not found. In addition, strategic decisions may remain concentrated among a relatively small group of directors, which could explain the moderate levels of participation in meetings ( $\bar{X} = 2.90$ ) and sharing of ideas ( $\bar{X} = 2.88$ ).

The results further indicate that economic benefits are the major factors influencing farmer's participation in FPO activities. Direct economic benefits ( $\bar{X} = 4.89$ ) and profitability from marketing ( $\bar{X} = 4.85$ ) emerged as the strongest motivating factors. Error! Reference source not found.-Error! Reference source not found. When FPOs are able to provide farmers with better prices or higher returns than those offered by local intermediaries, members are more likely to remain engaged in collective marketing activities. Error! Reference source not found.-Error! Reference source not found. On the other hand, factors such as landholding size ( $\bar{X} = 2.94$ ) and geographical proximity ( $\bar{X} = 2.84$ ) had comparatively less influence on participation. This suggests that even small and marginal farmers are willing to actively engage with FPOs when the organizations provide consistent and reliable economic benefits.

### Conclusion

Member farmers in Koppal district showed a moderate overall level of participation in FPO activities, with economic

benefits, quality inputs, and better marketing opportunities emerging as the major factors encouraging their involvement. Although participation was relatively high in input procurement and statutory governance activities, farmer's involvement in post-harvest value addition and leadership roles remained limited. These findings suggest that FPOs need to move beyond their traditional focus on input distribution to achieve greater operational and commercial sustainability. FPO management should focus on developing local primary processing facilities, forming decentralized commodity-based sub-committees, and strengthening transparent digital communication with members. Greater opportunities for member-led value addition, along with reliable and profitable market linkages, can help strengthen farmer participation and contribute to the development of FPOs as commercially viable and farmer-owned enterprises.

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