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Analyzing the Constraints as Perceived by the Board of Directors in the Initial Development Phase of the Farmer Producer Organizations

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ABSTRACT

Farmer Producer Organizations (FPOs) are the group of organization which is formed to solve marketing and value addition constraints of small and marginal farmers, minimize involvement of middlemen, empower farmers and to make farming more profitable. But FPOs are facing various constraints especially in initial stages of development. The objective of this study was framed to find out and rank constraints perceived by Board of Directors (BODs) of FPO in Jharkhand. One BOD member from each selected 45 FPOs was interviewed for data collection. Constraints were identified and ranked using Garrett Ranking Technique. Less knowledge of how to strengthen FPO; less facility of storage of produce; members are not willing to contribute for FPO; only few members of BOD are active and advance payment is required for getting inputs were perceived most severe constraints among technical, marketing, financial, governance and input supply respectively.

Key words : Constraints; Board of Directors; Farmer Producer Organizations.

Farmer Producer Organization is a group of at least ten farmers to take up agriculture and allied activities as business to increase income level of members. It enables members to pool their produce inside the company which can be sold under a single brand, develops a strong bargaining power in the market, reduces or avoids intermediaries, helps to raise more funds which can be used to purchase good quality seeds, logistics and marketing (Mukherjee et al., 2020). It is different from other farmer groups. FPO possesses only farmer members (both male and female) with no upper limit of members and more than one family member may get membership. FPO is registered under Indian Company Act or Cooperative Society Act or Trust Act, accordingly known as Farmer Producer Company (FPC), cooperative society and trust respectively. Each FPO has one Board of Directors (BOD) having 5-15 members. The BOD

appoint chief executive officer (CEO), make sure meetings are conducted regularly, maintain registers, prepare annual accounts, sanction loans to members, monitor day to day business, etc. (Mukherjee et al. 2019a; Yadav et al, 2021). More than 8,000 FPOs are formed in our country. Fifty per cent of it is located in only four states. Eighty per cent of the FPOs are aged three years or less. More than 450 FPOs are formed in Jharkhand. Several government schemes have been launched to form, strengthen and empower FPOs. These FPOs are in nascent stage and facing several constraints. Various studies reported that FPOs are facing inadequate working capital, problems with cash flow, product quality issues, less popularization of products, weak market linkages, poor inventory management, high overhead costs, and lack of skills for developing feasible business plans (Mukherjee et al., 2019b; 2020; Christie and Prasad, 2017; Sastry,

2017; Singh and Singh, 2013). They mainly face technical, marketing, financial, governance related difficulties and input supply constraints. Keeping in view above mentioned facts, objective was framed to find out and rank constraints perceived by BOD members of FPO in Jharkhand.

METHODOLOGY

Jharkhand was purposively selected to find out constraints faced by FPOs. More than four hundred fifty FPOs are registered in this state. Out of this, forty-five (i.e. 10 % of 450) FPOs were chosen by simple random sampling method. One Board of Director member from each selected FPO was chosen for data collection, thus constituting sample size of 45 respondents. Semi-structured schedule was developed for data collection. If required, respondents may also add/ delete constraints in the schedule.

Constraints are bottlenecks which hampered the working of the identified FPOs. It was measured under the sub heads of technical, marketing, financial, governance and input supply (Verma et al 2020, Mukherjee et al., 2019b). Technical constraints are the problems related to adoption of technologies. Marketing constraints are difficulties pertaining to purchase of inputs and sale of produce. Financial constraints are bottlenecks related to availability of fund, capital and insurance in FPO. Constraints related to governance of FPO are bottlenecks in operation, coordination, cooperation and participation. Constraints related to Input supply pertains to delivery, license, sudden rise in demand and costly dealership of inputs in FPO. Constraints were identified in consultation with the experts of agricultural extension, FPOs and literature. Boards of Director members were asked to rank the problems proposed to them. Garrett’s Ranking Techniques was used which provides the change of rank of constraints into numerical scores. Garrett’s formula for converting ranks into per cent is as follows:

$$\text{Per cent position} = 100 \times (\text{Rij} - 0.5) / \text{Nj}$$

where, Rij = rank given for ith constraint by jth individual; Nj = number of constraints ranked by jth individual

The per cent position of each rank has been converted into scores based on the table given by Garrett and Woodworth (1969). For each constraint, the scores of individual respondent has been added together and divided by the total number of the respondents. These mean scores for all the constraints

were arranged in descending order. The constraints were finally ranked on the basis of mean scores by following Mukherjee et al., 2012.

RESULTS AND DISCUSSION

Table 1 depicted calculation of percentage positions using formula $100 \times (\text{Rij} - 0.5) / \text{Nj}$ and their corresponding Garrett Table values for Technical Constraints. Similarly, percentage position and corresponding Garrett Table values for other constraints are also calculated. Table 2 provided total Garrett score, total mean score and rank of technical constraints. Total Garrett score for technical constraint ‘less knowledge of how to strengthen FPO’ is 2743 ($14 \times 80 + 10 \times 67 + 5 \times 60 + 4 \times 53 + 5 \times 47 + 2 \times 40 + 2 \times 33 + 3 \times 20$). Total mean score is obtained by dividing total Garrett score with number of respondents.

Table 1. Percentage positions and their corresponding Garrett Table Values for technical constraints

Rank	Percentage Position	Garrett Table Value
I	$100(1-0.5)/8$	6.25 80
II	$100(2-0.5)/8$	18.75 67
III	$100(3-0.5)/8$	31.25 60
IV	$100(4-0.5)/8$	43.75 53
V	$100(5-0.5)/8$	56.25 47
VI	$100(6-0.5)/8$	68.75 40
VII	$100(7-0.5)/8$	81.25 33

Table 2 indicated that ‘less knowledge of how to strengthen FPO’ was most severe technical constraint. In fact more than 450 FPOs are formed in Jharkhand but only few are strengthened and sustainable. Most of them are unaware of ways to strengthen FPO. Second ranked severe constraint was ‘less availability of appropriate technology’. BOD members were seeking suitable technology/ crop/ variety which can fetch net profit of 3 lacs rupees in one season from one acre of land. Third ranked severe constraint was ‘less knowledge of government schemes for promotion of FPO’. Most of the FPOs couldn’t establish linkages with supporting institutions like NABARD, SFAC, State Department of Agriculture, National Horticulture Mission and other agencies. Fourth ranked severe constraint was ‘less knowledge of grading, packing, labeling and branding of produce’. Most of the FPOs are unaware of efficient marketing strategies for selling their produce. Generally, they sell their produce in nearby local markets without processing. Similar finding is also reported by Venkattakumar and Narayanaswamy, (2022). Fifth ranked severe constraint

Table 2. Ranking of Technical Constraints perceived by BOD members in FPO

Technical constraints	Rank (N= 45)								Total Garret Score	Total Mean Score	Rank
	1	2	3	4	5	6	7	8			
Less availability of appropriate technology	10	5	14	4	5	2	2	3	2628	58.4	2
Less knowledge of grading, packing, labeling and branding of produce	10	8	4	8	5	3	4	3	2547	56.6	4
Less availability of skilled person (member, worker, etc)	3	5	7	8	3	8	4	7	2152	47.82	8
Less availability of appropriate literature	2	10	5	4	7	3	7	7	2162	48.04	7
Less knowledge of value-added products	5	4	8	3	9	7	5	4	2255	50.11	6
Less knowledge of govt. schemes for promotion of FPO	8	10	9	4	6	5	1	2	2617	58.16	3
Less knowledge of group approach in cultivation & marketing	4	12	6	10	3	3	6	1	2493	55.4	5
Less knowledge of how to strengthen FPO	14	10	5	4	5	2	2	3	2743	60.96	1

Table 3. Ranking of marketing constraints perceived by BOD members in FPO

Marketing constraints	Rank (N= 45)											Total Garret Score	Total Mean Score	Rank
	1	2	3	4	5	6	7	8	9	10	11			
Less facility of storage of produce	13	10	7	4	4	2	0	0	3	0	2	2919	64.87	1
Lack of sale counter in FPO	7	6	6	4	2	6	4	4	2	4	0	2564	56.98	3
Post- harvest losses	4	4	3	12	4	6	2	1	4	2	3	2414	53.64	6
Market is far away from FPO	4	5	10	6	8	2	1	3	2	2	2	2548	56.62	4
Lack of quality produce for export	2	7	5	1	9	3	7	4	3	0	4	2344	52.09	8
Lack of processing facility	13	9	6	4	3	2	1	2	1	4	0	2869	63.76	2
Lack of vehicle for transportation of produce	6	5	7	4	2	4	7	3	2	3	2	2477	55.04	5
High fluctuation in the price of produce	7	3	6	3	4	3	3	6	3	4	3	2374	52.76	7
Lack of knowledge & skill of online marketing	3	8	3	2	3	7	0	4	9	3	3	2256	50.13	9
Lack of trade skill	5	5	2	5	1	0	5	9	3	5	5	2177	48.38	10
Less popularization of FPO produce	1	6	3	5	4	4	6	2	4	5	5	2143	47.62	11

Table 4. Ranking of Financial Constraints perceived by BOD members in FPO

Financial constraints	Rank (N= 45)								Total Garret Score	Total Mean Score	Rank
	1	2	3	4	5	6	7	8			
Members are not willing to contribute for FPO	16	8	4	5	7	3	2	0	2836	63.02	1
Less contribution amount received from most of the members	12	8	6	9	1	3	3	3	2659	59.09	2
Lack of facility of Crop Insurance Scheme in FPO	5	11	7	7	6	7	0	2	2530	56.22	4
Government contribution is not sufficient to promote FPO	10	6	9	7	4	3	5	1	2606	57.91	3
To get fund from bank/ cooperative for production work is difficult	3	9	7	6	10	2	6	2	2369	52.64	5
The process and conditions are tough to provide contribution amount to FPO	1	6	10	3	7	8	4	6	2142	47.6	7
FPO has no business plan	6	5	4	2	3	4	8	13	1986	44.13	8
Most of the banks are unaware of FPO	2	11	7	2	2	8	6	7	2175	48.33	6

was 'less knowledge of group approach in cultivation & marketing'. Generally, FPOs are not selling produces of members under single brand. It was followed by less knowledge of value-added products; less availability of appropriate literature and less availability of skilled person (member, worker, etc) respectively.

Table 3 reflected marketing constraint. Most severe was 'less facility of storage of produce'. None of the FPOs possess warehouse/ cold storage facility. They are forced to sell their produce without storage and thereby getting less price. 'Lack of processing facility' ranked second in severity. Processing is required to improve shelf life and quality of produce. Farmers are compelled to sell their produce just after harvesting. Third severe constraint was 'lack of sale counter in FPO'. Sale counter fosters group marketing of produce. Fourth severe constraint was 'market is far away from FPO'. It is followed by lack of vehicle for transportation of produce; post-harvest losses; high fluctuation in the price of produce in the market; lack of quality produce for export; lack of knowledge & skill of online marketing; lack of trade skill and less popularization of FPO produce respectively.

Financial constraints are ranked in Table 4. Most severe was 'members are not willing to contribute for FPO'. It leads to second ranked constraint which is 'less contribution amount received from most of the members. Small and marginal farmers have neither surplus fund nor faith in success of FPO. That's why they are not willing to contribute. 'Government contribution is not sufficient to promote FPO' was third ranked constraint. Fourth ranked was 'lack of facility of Crop Insurance Scheme in FPO'. It is followed by 'to get fund from bank/ cooperative for production work is difficult'; 'most of the banks are unaware of FPO'; 'the process and conditions are tough to provide contribution amount to FPO; FPO has no business plan. 'Most of the banks are unaware of FPO' is in consonance with the findings of *Chopade S.L. et al, (2019)*. *Adhikari et al, (2021)* also reported that preparation of plan of group activities is important factor associated with sustainability of FPO.

The result from Table 5 indicated governance of FPO related constraints. 'Only few members of FPO are active' was found most severe. Board of Director members are selected without any criteria. Therefore all members are not active. 'Less involvement of youth in activities of FPO' ranked second in severity. Youth are less inclined towards agriculture and allied activities

due to field oriented works and less profitable venture. Therefore, only few youth take membership in FPO. Third ranked constraint was 'lack of proper coordination in collective work'. This is one of the reasons of lack of group approach in FPO. Fourth ranked constraint was 'not getting assistance from government department after establishment of FPO'. Few respondents were of opinion that after establishment of FPO, assistance from government will be provided automatically. It was followed by member have no faith in BOD; Lack of building for office; not holding regular meeting of BOD; not only BOD are owners of FPO and lack of regular data entry in registers respectively.

Table 6 depicted constraints related to input supply. 'Advance payment is required for getting inputs' ranked most severe constraint. Generally, FPO is unable to make advance payment for input. Second ranked constraint was 'getting licenses for selling inputs requires too much time'. One may apply for license after attending compulsory training. It is followed by sudden rise in demand of inputs on the onset of monsoon; no supply of inputs at right time and appropriate price; 'fertilizer dealership is costly' and 'renewal of license for selling inputs is not timely'.

In this research five area of constraints viz. technical constraints, marketing constraints, financial constraints, governance, and input supply related were recorded. In the technical constraints, less knowledge of how to strengthen FPO was ranked top followed by less availability of appropriate technology and less knowledge of govt. schemes for promotion of FPO. It is the general case of majority of the newly formed FPOs. Similar constraints were recorded by *Mukherjee et al., (2019b)* in their study of eight different FPCs across the India. This indicates an urgent need to form training modules for FPO farmers, the BODs need to be trained once before joining the FPOs. In case of marketing, the FPO faced lack of storage facilities as major constraints followed by processing facilities and sales counter. It indicates a gap in supply chain management which is also found as a problem by *Deka and Goswami, (2020)* in their study in West Bengal. Financial constraints as perceived by the BODs were members unwillingness to contribute for FPO, lack of facility of crop insurance in FPO, insufficient government contribution to promote FPOs. Farmer Producer Companies have been performing poorly in terms of solvency, efficiency and profitability during their initial years (*Kakati and Roy, 2017*) there is a need

Table 5. Ranking of Constraints pertaining to Governance of FPO as perceived by BOD members

Constraints related to governance of FPO	Rank (N= 45)									Total Garret Score	Total Mean Score	Rank
	1	2	3	4	5	6	7	8	9			
Only few members of BOD are active	10	11	7	4	5	5	1	1	1	2785	61.89	1
Not only BOD are owners of FPO	5	2	4	3	3	8	5	9	6	2044	45.42	8
Lack of building for Office	6	5	6	5	2	2	3	5	11	2149	47.78	6
Less involvement of youth in activities of FPO	8	9	15	2	5	2	2	1	1	2775	61.67	2
Lack of proper coordination in collective work	5	6	5	13	8	3	3	2	0	2565	57	3
Not getting assistance from Govt. department after establishment of FPO	6	6	5	5	6	6	5	4	2	2406	53.47	4
FPO members have no faith in BOD	5	6	3	5	5	7	4	6	4	2257	50.16	5
Not holding regular meeting of BOD	4	7	2	3	2	5	10	8	4	2123	47.18	7
Lack of regular data entry in registers	4	4	2	5	3	4	10	7	6	2041	45.36	9

Table 6. Ranking of Constraints pertaining to Input supply as perceived by BOD members

Constraints related to Input supply	Rank (N= 45)						Total Garret Score	Total Mean Score	Rank
	1	2	3	4	5	6			
Getting license for selling inputs requires too much time	18	6	9	2	3	7	2614	58.09	2
Renewal of license for selling inputs is not timely	3	6	10	10	10	6	2117	47.04	6
Advance payment is required for getting inputs	13	12	12	2	5	1	2705	60.11	1
Sudden rise in demand of inputs on the onset of monsoon	10	8	6	12	4	5	2413	53.62	3
No supply of inputs at right time and appropriate price	3	12	6	9	5	10	2140	47.56	4
Fertilizer dealership is costly	8	6	4	7	10	10	2132	47.38	5

to create awareness among the farmers regarding the process of formation and functioning of FPOs. In case of internal governance of FPO, it was found that only few members of BOD were active, less involvement of youth was recorded, lack of proper coordination in collective work was found. These are the internal issue. It can be solved by strong leadership and proper management. Input related constraints as perceived by the BODs were advance payment required for getting inputs, getting license for selling inputs requires too much time and cost intensive fertilizer dealership. Here the Government can take steps to ease the process of input dealings and licensing.

CONCLUSION

In this study an attempt was made to bring out the problems of FPO in initial stages. Less knowledge of how to strengthen FPO; less facility of storage of produce; members are not willing to contribute for FPO; only few members of BOD are active and advance payment is required for getting inputs were perceived most severe constraints by BOD members among technical, marketing, financial, governance

and input supply respectively. Severity of these constraints may be reduced through collaborative and integrated efforts of strengthening FPOs. All supporting institutions (NABARD, SFAC, NCDC, State department of Agriculture, National Horticulture Mission, National Horticulture Board, ICAR, SAUs, e-NAM, private organizations, NGOs, etc.) should join hands and support struggling FPOs in creation of necessary infrastructure like poly house, shade net, warehouse/pack house/cold storage, refrigerated van/mobile van, etc. to overcome major constraints. All FPOs should follow group approach in production as well as marketing to minimize involvement of intermediaries and maximize profit of members.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest.

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