

NISHA BHARTI
SNEHA KUMARI

**FPOs as a Sustainable
Business:
Factors impacting
the performance
of Agriculture Collectives
in India**

1. Introduction

According to the Agriculture Census 2011, India has around 138 million farm holdings. Out of this 24.8 million were small farmholders with landholding of less than 2 hectares, and 92.8 million were marginal farmholders, i.e. having a landholding of less than 1 hectare (Tiwari et al., 2021). The size of the land holdings has been consistently declining and raised a serious concern for the small farmers. Marginal and small farmers (hereafter smallholders) purchase inputs at retail price and sell agro-produce at wholesale price, and therefore, lose on both ends of the 'value chain'. Farmers have been facing a lack of capital and poor business skills. Aggregation or collectivization of farmers in any form of collectives such as cooperatives, Self-Help-Groups (SHGs), and more recent forms, i.e. Farmer Producer Organisations (FPOs), have been seen as "best-fit" model for addressing the issues and challenges faced by smallholders. FPOs have become centre stage in policy issues and are attracting the attention of policymakers.

Nisha Bharti,
Symbiosis International (Deemed
University), Pune, Symbiosis Institute
of International Business, India,
ORCID: 0000-0003-0071-3732.

Sneha Kumari,
Symbiosis International (Deemed
University), Pune,
Symbiosis School of Economics, India,
ORCID: 0000-0002-7228-1986.

Small Farmers Agribusiness Consortium (SFAC) and the National Bank for Agriculture and Rural Development (NABARD) are the most prominent institutions promoting FPOs nationwide. Besides, the State governments and developmental agencies have also supported and promoted FPOs mainly through NGOs. As of October 2020, around 8000+ FPOs registered mainly under the Indian Companies Act 1956 as amended in 2002 and 2013.

The Government of India has recognized the potential of FPOs, and therefore, the Ministry of Agriculture and Farmers Welfare announced the promotion of 10,000 new FPOs in the next five years with support from SFAC, NABARD, and the National Cooperative Development Corporation (NCDC). The latest data suggest that SFAC promoted 769 FPOs with a membership of about 7.48 lakh farmers. NABARD has promoted 2154 FPOs till March 2018. Until 2019, there were 5000 FPOs in the country, out of which 3200 were FPCs (NABARD 2020). Given the fast emerging FPOs, the concern for the quality of FPOs also becomes important. The government announced a support of Rs. 6865 Crores for the promotion of 10000 FPOs during 2019-24 (Ministry of Agriculture and Farmer’s Welfare, Government of India, 2021). The current status of FPOs in India is presented in table 1. The FPO movement’s growth picked up after 2018, and about 75 percent of FPOs were formed between 2020-2022 (table 1).

Table 1. Year wise number of FPOs registered

Year	FPO registered	Percentage
2010	29	0.092274
2011	36	0.114548
2012	65	0.206822
2013	183	0.582283
2014	313	0.995927
2015	978	3.111875
2016	1888	6.007382
2017	1015	3.229604
2018	1247	3.967799

2019	2587	8.231513
2020	4959	15.77892
2021	9123	29.02826
2022	9005	28.65279
Total	31428	100

Source: TCI cornell

We need to make these FPOs sustainable. If these FPOs themselves cannot sustain themselves in the long run, the whole effort and resources invested for promotion will be wasted. In this context, the question which emerges is: what factors impact the performance of FPOs? This study aims to identify important measures for the performance measurement of FPOs. This study will further recommend important pointers for the promotion of sustainable FPOs.

2. Literature Review

This section explored the relevant literature on agricultural collectives and cooperatives. First of all, we have tried to trace the evolution of collectives, and then we explored the role of these cooperatives and collectives in the sustainable development of agriculture.

2.1. Theory and Evolution of Cooperatives

The role of collectives in the promotion of agriculture development is always discussed. The theory of FPOs is guided by the thought that these cooperatives help in vertical integration (Nourse, 1922; Emelianoff, 1942). The other school of thought saw cooperatives as a medium for interaction between various stakeholders. These stakeholders could be managers, directors, their members, etc. (Krashinsky, 1997; Steinberg, 2006). One school of thought promotes strengthening the bargaining process and empowering the participants (Kaarlehto, 1955; Ohm, 1956). It is important to note that profitability is a big issue in agriculture, and increasing the bargaining power becomes very important to increase profitability. In this way, the collectives play an important role in decreasing the input cost and increasing the selling price

of produce. This increases the income of farmers (Bharti 2020). These studies have demonstrated the importance of agriculture collectives in agriculture and rural development.

The role of collectives in the promotion of agriculture development is always discussed. The history of collectives goes back to the 17th century. In its various forms, it always existed in India. However, the most successful example of collectives was AMUL. The first formal step to set up cooperative law was in 1904. In the early days, these cooperatives were focused on providing credit facilities, but later, they included various other forms too. In the early stages, the role of marketing in credit and marketing activities was appreciated (Bharti 2018). Several studies on cooperatives emphasized the role of collectives in agriculture and rural development. Gujarat was one state which experimented with several types of cooperatives like credit, marketing, water user cooperatives etc.

2.2. Role of Collectives

A recent study on comparative case analysis of FPOs in strengthening the Agriculture value chain reported that collective actions have helped the farmers to strengthen the agriculture value chain (Kumari, et.al. 2021). FPOs attract much interest from policymakers, the government, development institutions, financial institutions, and other relevant stakeholders. During the current COVID-19 pandemic, the existing FPOs were crucial in extending essential services to urban consumers (Nikam & Kale, 2020).

A recent study recommended that Farmer Producer Organisations (FPOs) can enable sustainable transitions during these covid times (Chebrolu and dutta 2021). In another study in India, it was concluded that FPO facilitates many innovative practices and helps in economic, environmental, and social benefits to the FPO. Some studies have gone up to the extent of recommending FPOs as the best means for bringing socio-economic transformation to the rural economy (Vijayakumar 2020). Even for women members, FPCs have significantly improved social, human, social, political, and financial aspects significantly improved social, human, social, political, and financial aspects (Mukherjee et al., 2019).

2.3. Impact of Cooperatives

In a study on the impact of FPOs, it was reported that factors like FPO-promoting institutions (44%), ease of doing business (16%), and infrastructure

facilities like storage, irrigation, electricity, and credit had impacted the performance of the states concerning FPOs (Manaswi et al., 2020). These studies have demonstrated the importance of FPOs in agriculture and rural development.

FPOs help farmers strengthen farmer members' backward and forward linkages and lower the transaction costs for sellers and buyers, besides providing Extension and Advisory Services (EAS). Many studies have demonstrated the benefits of producers' collectives, including a 50% increase in profits for smallholders from the crops handled by the farmers' organization (Bachke, n.d.). Patibandla & Sastry (2004) argued collectives are needed for small farmers to realize better output prices and credit terms and, thus, can help to eliminate interlocking factors and product markets (Panigrahy et al., 2020), where smallholders generally get trapped by traders. In a study in the Srilanka Farmer company, it was noted that the absence of well-defined procedures compromised the performance, and it will improve if government facilitators give attention to the important task of empowering small farmers (Rosairo, 2010). In a study on factors affecting the performance of FPOs, it was reported that factors like education, group leadership, group communication, adherence to rules, group participation, and team spirit had shown a significant positive relationship with performance (Amitha et al., 2021; Report on Diagnostic Study of C and D graded FPOs, 2020; Report on Feasibility Study of C and D graded FPOs, 2021). Not only in farming but even in various allied sectors role of cooperatives was appreciated. In a recent study on the impact of cooperatives on efficiency in goat farming, it was concluded that Cooperative membership shows a positive and significant impact on technical efficiency (Neupane et al., 2022). In this way, a literature review reveals that no study has focused on developing a scale for the performance management of FPOs, which is an urgent need of the day.

2.4. Performance of Cooperatives

Per the vision and mission behind the FPOs movement in India, there is an issue of performance measurement to define the FPOs. The FPOs are facing many challenges in terms of building member's "capacity" to understand its functioning and governance practices on one side and raising "capital" for management of their business operations and expansion & scaling up of business activities on the other hand (Chand et al. 2011, 2008; Dwivedi 2007). In the revised process guideline of FPOs, the 'capacity' development

component has been duly acknowledged and developed '*consortium approach*' for training & capacity building of FPOs under the leadership of BIRD, Lucknow and LINAC, Gurgaon institutions with support from partnering institutes like MANAGE Hyderabad, NIAM Jaipur, NIRD&PR Hyderabad, etc. However, the 'capital' issue remains unanswered. Therefore, there is a need to have a robust system for measuring FPO's performance to prove their creditworthiness vis-a-vis business acumen. If they fail to do so, the credit institution will not trust them. With a lack of access to credit, it will be difficult for them to grow. In terms of performance evaluation, most of the studies focused on identifying factors and did not try to develop a scorecard for the same.

As far as performance metrics are concerned, in literature, there are three metrics, i.e. threshold, probability and ranking metric (Caruana and A. Niculescu-Mizil, 2004). Some studies on developing a performance model developed it with a limited set of criteria and was developed for cooperatives (JAMSHIDNEZHAD. 2018). As FPOs are a recent concept, no such study was conducted for the performance evaluation model of FPOs.

However, there seems to be a lack of any proven instrument for measuring the performance of FPOs. These instruments are required to promote sustainable FPOs; however, as these FPOs are a recent phenomenon, such scales are lacking.

As FPOs have emerged as a recent phenomenon, there is a lack of academic research in this area. Most of the research has focused on looking at the impact of FPOs on the financial performance of farmers. There is a need to develop a tool for measuring the performance of FPOs. This study would identify the parameters required for assessing the performance and creditworthiness of FPOs. Various financial institutions can use the various financial institutions, and government agencies can use this. It will facilitate the lending process and help all the stakeholders like the government, financial institutions, Regulators, farmers, etc. The PMS developed can be used for monitoring the FPO's progress. Facilitating organizations can also design their training module based on these performance parameters to strengthen FPOs.

3. Research Methodology

This study was conducted in an emerging area. Hence, we chose to go for a qualitative study. Among qualitative studies, the Delphi method is used to seek

expert's advice on niche areas. As FPOs are one of the recent and emerging areas of work, and identifying factors is still unclear, we decided to go for the Delphi method to explore the factors responsible for impacting their performance. In this method, we took experts' opinions in this field. One limitation of this method is that the sample in this methodology is limited. This method is used to reach a consensus on several factors (Hesselink et al., 2024). Prasanna (2024) also used Delphi for anonymous judgement of experts. Hence, the Delphi method was found suitable for reaching a consensus on the factors important for FPO performance.

FPOs are business units and are expected to generate profits for their members. Considering this factor, FPO performance was linked to financial performance. We tried to explore what factors are responsible for making FPOs financially sustainable. An initial set of FPO performance parameters was identified by an extensive literature review comprising seminal articles, published reports, government websites, etc. The Delphi method was used to identify the important performance measures. The Delphi method has been used to elicit the response from the experts for getting a relevancy weightage on identified performance parameters. The performance measures identified were confirmed through an extensive literature review. Three rounds of Delphi were conducted. Twenty-six experts from agriculture collectives, firms, organizations, credit and farmers were selected. The criteria for selecting experts were that the experts should have worked on collectives or cooperatives for over 10 years. Efforts were made to get representation from FPO representatives, Government officials, Non-government officials, academicians, etc., to capture the diversity in the opinion. In the second round of Delphi, the experts were provided with a set of measures for performance measurement and were asked to rank them. This round was followed by a third round of Delphi, where the experts were approached again for any further changes or revisions in the ranks they provided. The ranks were finalized at the end of Delphi round - III. The conceptual framework of the study is shared in figure 1.

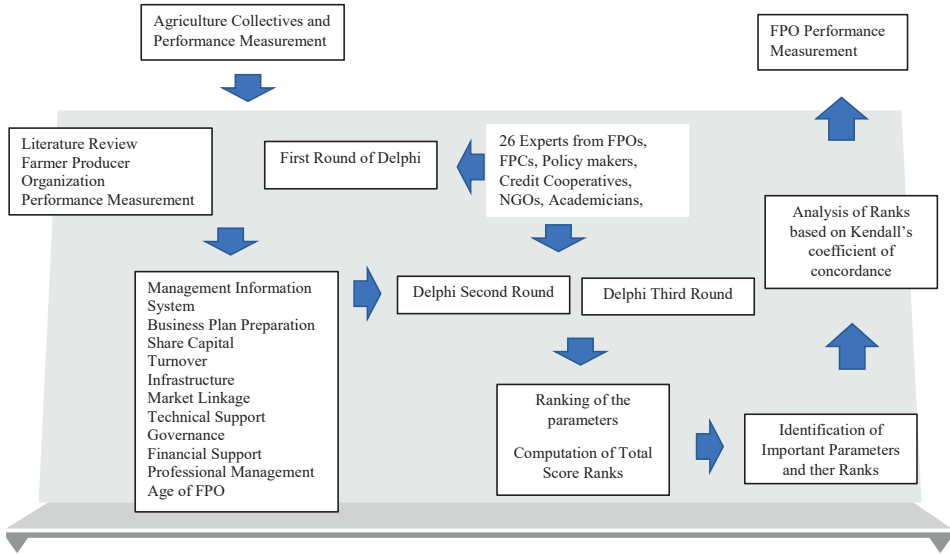


Figure 1. Conceptual framework FPO

Source: own study

The data from twenty-six experts were tabulated, and descriptive statistics showed the important measures. The data was further analyzed through Kendall's Coefficient of Concordance to understand whether the mean agreement was by chance. Data analysis has been done through SPSS. The Demographic profile of the experts is tabulated below (table 2). The experts were selected based on their experience in this field and carried a wide range of experience. The experts consist of people with more than 30 years of experience and people having more than 10 years of experience. They had more than 10 years of experience working with FPOs. It was also taken care to select people from various sectors like academics, farmer producer organizations, government officers, non-government organizations, etc.

Table 2. Demographics Profile of the Experts

S.no.	No of Expert	Years of Experience	Designation
1	1	More than 30 years	Former Additional Chief Secretary
2	4	More than 20 years	Director of Agriculture Firm/ Organization
3	10	More than 15 years	Manager CEO Consultant Professor
4	11	More than ten years	Business Development Manager, Assistant Manager, regional Manager, Division manager, etc.
Total	26		

Source: own study

4. Data Analysis and Findings

This section discussed the study's findings in various sub-sections like Delphi's first round and Delphi's second and third rounds.

4.1. Delphi Round - I

The experts were asked for the important measures for the performance of the FPOs. The extensive literature review has further validated these measures. The results of Delphi Round 1 are tabulated in table 3. The findings indicated the importance of financial support, Business Plan preparation and market linkages in developing a sustainable FPO. Management information systems and technical support were the least important factors for the FPO's performance.

Table 3. Measures Identified during the first round of Delphi

Measures	Percentage
Age of FPO	69.23
Governance	80.77

Financial Support	100.00
Professional Management	65.38
Technical Support	57.69
Market Linkages	84.62
Infrastructure	76.92
Turnover	69.23
Share capital	61.54
Management Information System	57.69
Business Plan Preparation	88.46

Source: own study

The results of the first round of Delphi were also supported by the experts' qualitative statements and findings from the literature. The below section discusses these factors in detail.

The FPOs' age was considered one of the important parameters for the success of the FPOs. A recent study on the financial and social efficiency of FPOs concluded that age is an important factor in determining the efficiency of the cooperatives. A recent report by NABARD concluded that matured FPOs had performed better in diversifying their business basket and had greater viability (Nayak 2022). However, another study concluded that social efficiency also decreases with age, and it needs to be noted that young agricultural cooperatives are suitable for the social efficiency challenges of agricultural cooperatives (Yobe et al., 2022). It is important to note that the government has decided to form 10000 FPOs in the next 5 years, but the policy did not discuss how much time is required for FPOs to get established. A concern on the organisation of Agricultural collectives question was raised by Tobriner (1924), how should a cooperative be organized? He concluded that the farmers or outsider farmers could organize the cooperatives or outsiders could organize the cooperatives. He also added that the federated model is a better model to give a firm foundation to the cooperative model. Oetzel et al. (2022) concluded that Structural Governance and Collective Empowerment interact with each other to produce positive outcomes. A recent report by FAO highlighted that "Capital and Capability are both essential for doing any business" (FAO 2022). One of the CEO of an

agriculture firm stated that the agriculture collective requires technology and machinery to transform the agriculture produce into processing. This requires financial feasibility of the FPOs. The government has provided financial support to the agriculture cooperatives to sustain their livelihood.

Technology is always a handholding support for agriculture production and marketing. The technical support in the form of machinery, digitalization and the process helped structure the FPOs for better agriculture marketing and increasing revenue. In a study by ICRISAT (2017) it was highlighted that there is a need for identifying the right kind of support agencies with skilled technical experts for developing a sustainable FPO. The role of cooperatives in marketing agricultural produce has always been in agricultural produce, which was discussed in the literature. Booth made one of the earliest mentions of marketing in the collective (1928, 1929). He discussed the role of collectives in the marketing of grains in the USA and Canada. The first cooperative association to handle grain, of which a definite record is available, was organized in Wisconsin. Several studies concluded that farmer organisations provide a range of services to their members like marketing, finance, technology, production and welfare, etc. (Sawairam, 2014). MIS/ Record Keeping is an enabler in stabilizing the system and revitalizing the FPOs for better decision making. In a study, it was concluded that FPOs helped farmers in enhancing their income of farmers and also helped in improving their marketing intelligence (Darshan *et al.*, 2017). In a study on the impact of FPOs, it was reported that factors like FPO-promoting institutions (44%), ease of doing business (16%) and infrastructure facilities like storage, irrigation, electricity and credit had impacted the performance of the states concerning FPOs (Manaswi *et al.*, 2020).

4.2. Delphi Round - II and III

After the Delphi round, the experts were given the measures list and asked to rank them. We prepared a questionnaire listing the 11 measures and their ranks. The experts were provided the questionnaire personally and were asked to rank the measures. Sufficient time was given to the experts to understand the measures and rank them. The doubts were cleared by the researchers as and when required. It was observed that the experts showed great interest in ranking the measures and also provided a few suggestions for better performance measurement of FPOs. Once the ranks were filled, all the responses were collected and a tabular representation was made for finalizing

the ranks. In the third round of Delphi, the experts were provided with the measures and asked to confirm the ranks they provided. We collected the responses and tabulated them. The changes or revised ranks were updated. The updated ranks were used for further analysis. In this round, some more factors were suggested as additions by some of the experts. These factors are Convergence with GoI/State government scheme, Convergence with Dinar agencies/CSR funds, and Extent of Convergence of non-farm and off-farm value chain activities.

H0: The mean agreements are by chance

H1: The mean agreements are not by chance

The hypothesis test results show that the mean agreement of the measures ranking for the agricultural collectives' performance is not by chance. We accept the alternative hypothesis.

Table 4. Descriptive Statistics

	N	Mean	Std. Deviation
Age of FPO	26	7.5385	3.61365
Governance	26	4.7308	3.43578
Financial Support	26	3.1538	2.03356
Professional Management	26	4.8846	3.12828
Technical Support	26	5.4231	2.50077
Market Linkages	26	4.1923	2.74254
Infrastructure	26	6.5385	2.35339
Turnover	26	6.5385	2.54921
Share capital	26	7.5385	2.00461
Management Information System	26	8.3462	2.18984
Business Plan Preparation	26	7.1154	3.64776

Source: own study

Table 4 shows the descriptive statistics of the ranks of the measures for performance. The mean and standard deviation of the measures are presented in the table. After the descriptive statistics, the ranks of the measures are presented in the table 5. It has been observed that governance of the farmer-producer organization, financial support, and professional management are the core measures for farmer producer organizations.

The FPOs should focus on their governance to sustain agriculture. After analyzing the descriptive statistics and mean ranks, Kendall's W coefficient was obtained. The value of the coefficient is found to be 0.242. This shows that the argument is weak. This is due to the reason that the concept of the Farmer Producer Organization is an emerging concept, and the measures for their performance is not yet explored much. The experts believe that all the measures identified in Round 1 are extremely important and depend on each other. This again reemphasizes the importance of research in this area (table 5).

Table 5. Ranks of various factors

	Mean Rank	Rank as per the importance
Age of FPO	7.54	10
Governance	4.73	3
Financial Support	3.15	1
Professional Management	4.88	4
Technical Support	5.42	5
Market Linkages	4.19	2
Infrastructure	6.54	6
Turnover	6.54	7
Share capital	7.54	9
Management Information System	8.35	11
Business Plan Preparation	7.12	8

Source: own study

5. Discussion

The experts have provided the parameters discussed in the findings based on the performance of the FPOs. The performance in the present study is limited to the financial stability of the FPOs. However, the experts also suggested other essential measures for sustaining the FPOs. The measures for the performance of FPO, as obtained in the findings, are also dependent upon a few driving factors suggested by the experts. Every FPO should have their mission and vision. The vision and mission help them target their objectives and make better decisions. Few experts also agree to the fact that FPOs need handholding support. Handholding support, Easier Grants (Single Window System) of various Govt sponsored Schemes for Infrastructure, Finance, Export, Licensing, etc., Experience of the CEO, Number of Members, Deciding the prices of the crop before their harvest to averse any market impact on price reimbursed at the time of delivery, Human resource Contribution from members- procurement, Active participation of farmers, Management cost should be less than ten percentage of income increased of all the members in the aggregate, Convergence with GoI/State government scheme - 10, Convergence with Donor Agencies, Extent of partnership, Strength of Resource Institution/promoting agency, Credentials of Individual Founding Member of FPO, and Transportation facility for farm produce were other antecedents suggested by the experts for FPO performance.

It is important to note that financial support is regarded as one of the most important factors in improving the performance of FPOs. The FPOs established have also been unable to attract institutional finance. It was reported that none of the FPOs availed of finance from formal sources. It was also important to note that newly established FPOs were denied bank loans as they could not submit their 3-year balance sheet (Badatya et al., 2018). "Lack of sufficient seed capital for the initial phase" was one of the most difficult impeding factors, followed by „lack of loan from banks" and „lack of knowledge about IPR issue." Dynamic leadership was the most important factor in facilitating the growth of FPC, followed by „hard work of members" and „skill training of members." To enable excellent performance of FPCs, these variables must be recognized and handled (Mukherjee et al., 2020). Mainly factors like maintaining financial records, filling GST returns on time, preparing budget and sharing it with stakeholders were important factors impacting the FPO performance. In a case study done on an FPO, it was concluded that FPOs face challenge in raising sufficient capital, and that constrains the process of providing benefits to FPOs (Bikkina et al., 2018). In a study on the cooperatives in Iran, the capital, including

financial, physical and social capital, was identified as one of the important factors; however, human capital and natural capital were the most effective variables (Mohammadi et al. 2023). Not only finance but the role of leadership is also emphasized for the performance of FPOs. A study also concluded that the selection of CEOs is critical to the success of an FPO, and therefore, it should be ensured that a person with a good educational background and experience is selected as CEO (Chintala and Mani, 2022). In addition to finance and governance, the role of marketing was also emphasized. Membership in farmer groups and collective marketing significantly positively affected farm net revenues (Rahaman and Abdulai, 2020).

There is a dire need to form such policies to support these FPOs and the SHG movement in the past.

6. Implications

Measuring the performance of widely spread and fast-growing FPOs is a major concern. A standard tool for the same will help all stakeholders involved. The study will help standardise a scorecard for the performance measurement of the FPOs. This will help identify the training need gaps and design our training accordingly. It will also help promote sustainable FPOs, ultimately leading to agriculture and rural development. A significant amount of money is spent on promoting these FPOs. It is the need of the hour to make them sustainable. If these organizations do not sustain it will be a loss for the country. To help them sustain, we need to provide them with the right kind of input. To develop a sustainable organization, we will need to have a uniform system of benchmarking and proper need assessment for the training. This study will be a useful resource for these requirements.

7. Conclusion, Limitation and Future Directions for Research

The Government of India has recognized the potential of FPOs, and therefore, the Ministry of Agriculture and Farmers Welfare announced the promotion of 10,000 new FPOs in the next five years with support from SFAC, NABARD and the National Cooperative Development Corporation (NCDC). The latest data suggest that SFAC promoted 769 FPOs with a membership of about 7.48 lakh farmers. NABARD has promoted 2154 FPOs till March 2018. Until 2019, there were 5000 FPOs in the country, out of which 3200 were FPCs (NABARD 2020). Given the fast-emerging FPOs, the concern for

the quality of FPOs also becomes important. In this context, this study is designed to develop measures for the performance of FPOs. Reviewing the relevant literature and published reports, an initial set of FPO performance parameters has been identified.

The Delphi method has been used to elicit the response from the experts for getting a relevancy weightage on identified performance parameters. It has been observed that Governance of the farmer producer organization, financial support, and professional management are the core measures for farmer producer organizations. Financial support is also a key to the success of these FPOs. Lending institutions should be proactive in providing financial support to these FPOs. The FPOs should focus on their governance to sustain agriculture. Governance factors, including a clear mission and vision, will also help these FPOs. In addition to these factors even professional management was identified as one of the important factors. The example of Amul is a successful case to justify the role of professional management of the collectives. Apart from the three core measures of performance measurement, the study also found other important measures for the performance of FPO, which cannot be ignored. Measures like Management Information System, Business Plan Preparation, Share Capital, Turnover, Infrastructure, Market Linkages, Technical Support, and Age of FPO play an important role in the performance of the FPOs. The objective of these performance measures will be to improve the financial sustainability of these FPOs.

Measuring the performance of widely spread and fast-growing FPOs is a major concern. A standard tool for the same will help all stakeholders involved. The study will help in standardizing a scorecard for the performance measurement of the FPOs. This will help identify the training need gaps and design our training accordingly. It will also help promote sustainable FPOs, ultimately leading to agriculture and rural development. The study also highlighted that finance is an important factor in improving the performance of FPOs. Due to a lack of a proper policy framework, these FPOs cannot access loans from traditional sources. Informal sources are very exploitative. We need to form suitable policies to support these FPOs financially. The study's results also suggested that there should be a convergence of Government schemes and CSR funds for the funding. This will be helpful for the FPOs.

This study was conducted in only one state i.e. Maharashtra. Though Maharashtra is one of the leading states and the constitutes more than 35 percent of the FPOs in India, the results of the findings cannot be generalised to all the states of India. The study is limited to identifying factors for the performance

of the FPO. However, we feel that further research can be done to understand the linkages among the factors especially age and survival, which logically appears to be a very strong impact variable on other factors. The dependent and independent linkage will help understand the causal effect relationship among the variables and their coefficients.

Abstract

In recent years, the government's focus on promoting FPOs has led to an increase in FPOs multifold. However, with the fast growth of FPOs, it is important to identify what impacts the performance of FPOs. This study raised the question, "What impacts the performance of FPOs? This study attempts to identify the measures for the performance of the FPOs.

The Delphi round was conducted with 26 experts identified from agriculture. The performance measures were identified and linked with the literature. In the second round of Delphi, the experts were provided with eleven measures for performance and were asked to rank them. Based on the weightage of each criterion the most important criteria were decided. The mean ranks and deviations of the performance measures were analyzed. The hypothesis test and Kendall's coefficient of concordance have been further used to validate the performance measures.

It has been observed that governance of the farmer-producer organization, financial support, and professional management are the core measures for farmer producer organizations. Measures like Management Information Systems, Business Plan Preparation, Share capital, Turnover, Infrastructure, Market Linkages, Technical Support, and Age of FPO play an important role in the performance of the FPOs.

This study will be helpful for all the stakeholders, including FPOs themselves, funding agencies, skill-building organizations, etc.

Keywords: *performance measures, collectives, agriculture, farmers, farmer producer organization, governance, professional management, financial support.*

JEL

Classification: O1, Q1, D2.

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