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Farmer Producer Organisations in Maharashtra: Prospects and Challenges

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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 aim of Farmer Producer Organisations is to ensure better income for the producers through an organization of their own. This study has included Ahmednagar, Aurangabad, Jalgaon, and Pune districts of the state of Maharashtra, India because of their highest frequency of FPOs. It was found that the majority of the FPOs selected were engaged in the production and marketing of the crops and the maximum share of the FPOs was promoted by NABARD, World Bank scheme. The majority of FPOs members were in the range of 101-500, while the majority of FPOs were established between 7-8 years. Inadequate contribution by the members exists because of the poor economy and inadequate finance, lack of transport, distance of the market, storage facility, and lack of access to office buildings.

Keywords: Farmer producer organisation; challenges; schemes; Maharashtra; benefits.

1. INTRODUCTION

1.1 Background

After the 1990s, the state shows a withdrawal policy from productive and economic functions

soon after the adoption of liberalization and privatization in Indian agriculture [1]. It created a significant gap in farmers' well-being, which was quickly filled by the private agribusiness sector. In between 2010-11 and 2015-16, small and marginal farmers increased from 84.9% to

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86.2%. And, size of average land holding declined from 1.15 hectares in 2010-11 to 1.08 hectares in 2015-16 [2]. Under the NITI Aayog, India's Prime Minister, Shri. Narendra Modi has emphasized doubling farmer income by 2022. In a paper published in 2015, the NITI Aayog stated that five issues must be addressed in order to improve farmers' livelihoods. Increased productivity, remunerative prices for farmers, a focus on land leasing and land titles, risk adaptation and mitigation, and a geographic focus on the eastern region are among these goals [3].

1.2 Producer Organisation

A producer organisation is a formal rural institution whose members have gathered together with the goal of increasing farm profit through better production, marketing, and local processing [4]. Producer Organisations deal with policies relating to pricing, export, and import of agricultural products, agricultural production practices, and access to inputs and services, along with credit to agriculture, agricultural marketing, and local processing and marketing of agricultural production.

1.3 Legal Forms of Producer Organisations

A Producer Organisation can be organized in different forms. The possible forms may be:

- i) A Co-operative society
- ii) A Producer company
- iii) A Non-profit society
- iv) A Trust
- v) A Section 8 company

1.3.1 Producer organisation as a cooperative society

A co-operative is an autonomous group of people who have come together voluntarily to meet their economic, social, and cultural needs and aspirations through a jointly owned and democratically controlled business (Committee for the Promotion and Advancement of Cooperatives, COPAC 1999). Cooperatives across the developing world have been more of a failure than success and are alleged to have led to exclusion of the poor, and elites have captured of such bodies, promoting differentiation instead of equity in rural communities like in the case of sugar co-operatives in Gujarat [5]. This pattern differs from research in the sociology of agriculture in the global North, where cooperative structures have allowed farmers to persist even as growing conditions have worsened due to climate change and economic factors [6,7].

1.3.2 Producer organisation as a producer company

The concept of producer companies was introduced in 2002 by implementing Part IX A into the Companies Act, based on the recommendations of an expert committee led by noted economist Sh. Y. K. Alagh, was tasked with framing legislation that would enable the incorporation of cooperatives as companies and the conversion of existing cooperatives into companies while maintaining the unique elements of cooperative business with a regulatory framework similar to that of corporations. A 'Producer Company' can only be owned by those who operate in the primary production industry. Members are expected to be "primary producers."

1.3.3 Producer organisation as a non-profit organisation

A non-profit organisation is one that is prohibited from distributing its financial surplus to those who regulate the use of the organisation's assets, either by external regulation or by its own governance structure [8]. Non-profit boards have some ownership rights, which are direct use resources, but not others, such as the right to profit from those resources and sell those rights to others for a profit [9]. A non-profit society can be defined as a group of people (usually unincorporated) who have come together by mutual consent to deliberate, decide, and act together for a common goal.

1.3.4 Producer organisation as trust

Transfer of property by the owner to another for the benefit of the third person with or without the owner is called a trust. Trust is of two types Public and private. Private trusts are not intended for commercial activities they are mainly for charitable and religious purposes. Benefitting the public at large or some considerable portion of the public is known as a public charitable trust. When it comes to benefits, private trust is very specific. A Producer Organisation can be registered as a Trust for one or more of the following purposes: relief from poverty or distress education, youth development, medical relief, provision of facilities for recreation, or, even other spare time occupation in the interest of social welfare and public benefit, and/or progression of any other object for general public utility, except religious teaching or worship. The trusts, like non-profit organisations, can fundraise through donations, gifts, grants, and/or loans. If it is formed for charitable purposes, the income of a

PO registered as trust is exempt from income tax.

1.3.5 Producer organisation formed as section 8 company

Companies that are formed solely for the purpose of promoting commerce, art, science, religion, charity, or any other useful object are known as Section 8 Companies. The PO must meet the following requirements in order to register as a Section 8 company: a) Minimum 2 shareholders (for a private limited company) and 7 shareholders (for a public limited company); b) Minimum 2 directors (for a private limited company) and 3 directors (for a public limited company); c) Every director must obtain a DIN (Director Identification Number); d) At least one director of the PO must obtain a Digital Signature; e) Memorandum of Association and f) Article of Association. Uniform law across the country, preference in foreign funding over others due to stringent disclosure norms and regulatory provisions under the Companies Act, 1956 and the Foreign Contribution Regulation Act, recognition of Section 8 Companies by the Central and State Governments in various Schemes implemented by them, a wide range of activities, exemption from using the words Private Limited or Limited, members/owners easily transfer ownership in shares and interests, and exemption from using the words Private Limited or Limited.

1.4 Mechanism of Doubling the Farmers' Income through Farmer Producer Organisation

Farmer Producer Organisations are based on the idea that farmers who produce agricultural products can form groups and register under the Indian Companies Act. The Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, has mandated the Small Farmers' Agribusiness Consortium (SFAC) to assist state governments in the formation of Farmer Producer Organisations (FPOs). The goal is to improve farmers' competitiveness and give them a leg up on new market opportunities. In response to the difficulties faced by marginal and small farmers, a variety of initiatives have arisen. The first approach is assisting marginal and small farmers in taking collective action. Agricultural cooperatives, which were established by the Co-operative Credit Societies Act of 1904, have long been the most common type of farmer collective;

yet, cooperatives have too many limitations that restrict effective collective action.

1.5 Benefits of FPOs for the Members

- A. Better farm income:** By first determining demand and then purchasing in bulk, an FPO can ensure a higher farm income for its producer members. Furthermore, by transporting in bulk, transportation costs can be controlled, lowering the overall cost of production. Similarly, the FPO may pool all members' produce and sell it in bulk, resulting in a higher price per unit of produce.
- B. Provision of market information:** Information about the market the FPO can also provide market information to producers, allowing them to keep their produce until market prices improve. All of these interventions will increase primary producers' income.
- C. Economies of scale:** Organisations with a large membership base can also benefit from collective ordering and purchasing, allowing them to provide certain common items to their members at a lower cost. Ordering costs, transportation costs, and economies in large-scale purchases of agricultural inputs such as seed, fertilizers, pesticides, agricultural equipment, and so on behalf of their members are all part of the cost savings because of the scale of economies.
- D. Enable vertical integration:** Producer-owned organisations were good examples of vertical integration based on horizontal coordination of farmers as initiators because they demonstrated that by cooperating, farmers in the upper part of the food chain could significantly improve their countervailing power and establish ownership if they could secure strict quality requirements, solid financing, loyalty, and trust in their organisations [10].
- E. Ensure market access:** Market access is ensured through the purchase of members' produce, and transportation is equivalent to the manufacturing organisation's inbound logistics activity. The purchasing activity also includes quality control and pricing of raw materials. The FPO's typical value-adding operations are covered by consolidation and processing. While consolidation is concerned with bulking and storing the produce in order to sell it at a later date for a profit, processing is concerned with increasing the value of a

product by altering its form and/or structure.

F. Develop market and buyer relation: To be a reliable market partner it is necessary to make strong and long-term relationships with buyers of various sectors. It also requires strong contractual arrangements and agreement with them. Market information is critical for FPOs to make commercial decisions, as well as for transferring market signals to members to influence production decisions and define FPO supply conditions. Small producers were able to make strategic investments through producer organisations to get exposure to Agro-industrial markets where their output was more profitable by forming more sophisticated contractual relationships with potential purchasers. Mbeche and Dorward [11] discovered that when new marketing opportunities appear, individuals with more acreage, higher education, and better organisation are

better equipped to deal with the complexities of the new contractual arrangements.

1.6 Status of Farmer Producer Organisations (FPOs) in India

The Government has started the Central Sector Scheme "Formation and Promotion of 10,000 FPOs" with a sanctioned budget lay of Rs. 6,865 crores to form and promote 10,000 new FPOs until 2027-28. The scheme uses a Produce Cluster Area approach to form and promote FPOs. The formation of FPOs will be focused on "One District One Product" for the growth of product specialization while using a cluster-based approach. Each block is given one FPO at first. So far, Implementing Organisations have been assigned a total of 4,609 fresh FPOs produce clusters for the formation of FPOs, with a total of 632 FPOs registered.

Table 1. Detail of Producer Companies for the year 2020, state wise

State	Number of Producer Companies
Andhra Pradesh	147
Arunachal Pradesh	15
Assam	87
Bihar	221
Chandigarh	1
Chhattisgarh	32
Delhi	7
Gujarat	108
Haryana	257
Himachal Pradesh	7
Jammu & Kashmir	10
Jharkhand	70
Karnataka	195
Kerala	53
Madhya Pradesh	237
Maharashtra	1950
Manipur	26
Meghalaya	1
Mizoram	4
Nagaland	6
Orissa	177
Puducherry	1
Punjab	13
Rajasthan	114
Tamil Nadu	241
Telangana	119
Tripura	8
Uttar Pradesh	654
Uttarakhand	14
West Bengal	184
Grand Total	4959

Source: <https://pib.gov.in/PressReleasePage.aspx?PRID=1739593>

In India as of March 31, 2020, the country's total number of FPOs was around 4959. There are FPOs in the country that are not yet registered, as well as FPOs that are in the process of becoming registered. The Small Farmers Agribusiness Consortium (SFAC) promotes all FPOs in the country, and these FPOs are financed by the National Bank for Agriculture and Rural Development (NABARD). The technical support of the FPOs is provided by Producer Organisation Promoting Institutions (POPIs) for the first year, after which the management of the system is handed over to the respective FPOs' management committees. Maharashtra has the highest number of FPO which is 1950. that comprises 25% of the whole FPO present in India. Which consist of FPOs promoted by NABARD, Nabkisan Pvt Ltd. SFAC, MSAMB,

World bank, Japan poverty reduction fund, and self-promoted FPO, Followed by Uttar Pradesh (654) Haryana (257), and Tamil Nadu (241). As shown in Table 1.

1.7 Status of FPOs in Maharashtra

There are 1950 Farmer Producer Organisations in Maharashtra. Their main duties comprise identification of crops to be raised based on market demand, arranging transportation facilities, bulk procurement of inputs and distribution among members, for produces of member farmers in order to ensure economies of scale and elimination of middlemen in the marketing channel. The district-wise number of FPOs in Maharashtra is presented in Table 2.

Table 2. Status of farmer producer organisations in Maharashtra

Sr. No.	District	FPO
1.	Ahmednagar	43
2.	Akola	18
3.	Amravati	34
4.	Aurangabad	65
5.	Beed	36
6.	Bhandara	6
7.	Buldhana	33
8.	Chandrapur	3
9.	Dhule	20
10.	Gadchiroli	0
11.	Gondia	5
12.	Hingoli	13
13.	Jalgaon	39
14.	Jalna	24
15.	Kolhapur	33
16.	Latur	38
17.	Mumbai City	6
18.	Mumbai Suburban	30
19.	Nagpur	13
20.	Nanded	20
21.	Nandurbar	9
22.	Nashik	38
23.	Osmanabad	38
24.	Parbhani	17
25.	Pune	85
26.	Raigad	0
28.	Ratnagiri	7
29.	Sangli	22
30.	Satara	30
31.	Sindhudurg	4
32.	Solapur	38
33.	Thane	5
34.	Wardha	11
35.	Washim	11
36.	Yavatmal	27
37.	Palghar	0

Source: <http://erp.msamb.com/online/fpc>

Out of 1950 total FPOs, 825 FPO were registered, Pune tops the list with 85 registered FPOs, followed by Aurangabad and Ahmednagar with 65 and 43 registered FPOs, respectively. As shown in Table 2.

1.8 Objectives of the Study

- To study the impact of government schemes on Farmer Producer Organisations in Maharashtra.
- To identify challenges faced by Farmer Producer Organisations in Maharashtra.

1.9 Review of Literature

1.9.1 Studies on need for producer organisations

Trebbin and Hassler [12] stated that producer businesses were a means for smallholder farmers to organise and reap benefits - not only from cooperative action, but also from links to developing high-value marketplaces in India's cities. According to their research, the Indian government mostly promotes private enterprise agriculture activities, but it also strives to encourage groupings of primary farmers to link with corporate clients. The evolution of farmer groups into more market-oriented and company forms of institutions can be analysed through the lens of producer firms. It is a tool for smallholder farmers to organise themselves and gain the benefits of cooperative action as well as links to developing high-value marketplaces in India's cities.

Bhosale [13] in his research, over two lakh farmers are members of 260 FPOs supported by SFAC. Aside from these 260 FPOs, another 350 are in the process of being registered. According to Pravesh Sharma of the SFAC, FPOs at higher levels will be able to take advantage of human resources expertise through recruiting specialists, as well as technology. In 2014, SFAC would open seven state-level FPOs in West Bengal, Gujarat, Rajasthan, Uttarakhand, and Madhya Pradesh.

Trebbin [14] in his research, stated that there is potential for producer companies in India to become part of modern retailer supply chains, but only a few have done so far. On the one hand, this can be linked to the producer businesses' lack of competences. A relevant language could be inserted in the producer company legislation once it has been tested in

the field. At the same time, in order to spark the attention of corporate customers, India's food retail legislation may in the future contain a requirement that a specific percentage of fresh fruit be acquired from farmer cooperatives.

Harrington [15] seeks to educate industrial policies and strategies to assist the development of nascent, developing, and mature FPOs, as well as conventional-digital FPO capabilities in specific geographical contexts. By merging stages of emergence for FPOs and supply networks, an Institutional-Socially Responsible Supply Network' stages' model is established to help understand supply network evolution in terms of a portfolio of resource-efficient technology interventions. FPOs and their network partners can examine the effects of traditional and digital process technologies on supply network designs and business models in various development-launch-supply scenarios in comparison to existing supply models.

1.9.2 Studies on financial aspects of FPOs

Murray [16] in his research financed community-based agriculture projects with a social orientation and a good commercial plan were studied. While institutions are inclined to consider sponsoring POs, the obstacles remain considerable. Oiko Credit has a long history of sponsoring agricultural projects (many of which are cooperatives) throughout Central Asia, Eastern Europe, Latin America and Africa.

Joglekar [17] in his studies, there is a concern of accountability in terms of output - the finances and agenda are provided by SFAC, but the implementation is handled by CSOs (civil society organisations). Another significant project is NABARD's PODF (Producer Organisations Development Fund), which provides funding of up to 50 crores to qualified producer companies. This, too, is subject to the requirement that they hold the company's assets as collateral. However, this would limit enterprises who do not have assets or are in the early stages of establishing their business.

Singh and Pordhiya [18] stated that majority of farmers in India are concerned about decreasing farm productivity, lower resource use efficiency and lower farm revenue. Farmer Producer Organisations (FPOs) work on the principle of economies of scale and collective action and have emerged as a bright ray of hope for mitigating some of these challenges. Taking these facts into account, this study was

conducted to examine the socioeconomic and sociopsychological characteristics of FPO members by recruiting 240 respondents from four districts Madhya Pradesh FPOs (M.P.).

Yadav et al. [19] studied FPOs in Chhattisgarh. Their main occupation were crop and fruit production. They were taking input in wholesale rate. It was found that, Rs. 7.15 lakh and Rs. 6.08 lakh were the average authorized capital and paid-up capital of the selected FPOs respectively. The average contribution per member was estimated at Rs. 1110. The average annual turnover was found Rs.15 lakh and all the FPOs were crashed in profits (2016-17). Government support in the form of grants during the early stage the PCs should be made available.

2. RESEARCH METHODOLOGY

2.1 Research Design

Descriptive research design was used to attain the objectives of the study.

2.2 Area of Study

Maharashtra is a state in western India that covers maximum area of the Deccan Plateau. Maharashtra is India's second most populous state. Maharashtra is India's third-largest state by area, covering 307,713 km² (118,809 sq. mi). its primary source of income is agriculture. In the state, both food and cash crops are grown. Rice, jowar, bajra, wheat, pulses, turmeric, onions, cotton, sugarcane, and a variety of oil seeds such as groundnut, sunflower, and soybean are among the most important crops. The state has vast areas dedicated to fruit farming, with mangoes, bananas, grapes, and oranges being the most popular.

2.3 Collection of Data

2.3.1 Primary data

Primary data was gathered by conducting surveys in the study locations. The research was of survey type and so immense importance was given to the technicalities of constructing schedule, sampling method, and interviewing the respondents (Farmer Producer Organisation).

2.3.2 Secondary data

Collection of secondary data was done from records maintained by NABARD, Small Farmers

Agribusiness Consortium (SFAC), and Producer Organisations Promoting Institutions (POPI) of the concerned FPOs regarding details of FPOs. Besides these, magazines, journals, books, papers, and the websites of numerous departments and institutes were also used as sources.

2.4 Sampling Units

- a) FPO – 20
- b) FPO officials - 20 (1 from each FPO)
- c) FPO Farmers - 100 (5 from each FPO and 25 from each district)

2.5 Selection of Sample and Data Collection

2.5.1 Selection of districts

Out of 36 districts in Maharashtra, Ahmednagar (43), Aurangabad (65), Jalgaon (39), and Pune (85) were selected purposively for the study on the basis of the presence of the maximum number of FPOs in the states as these districts had approximate 30 percent of the total FPOs in the state.

2.5.2 Selection of FPOs

From selected districts, 5 FPOs were selected from each district for study purposes. The total number of FPOs constituted 20. The selection of FPOs was based on the following assumptions:

- a) FPOs selected were of more than two years after the establishment;
- b) Operation was considered from production to marketing and
- c) The FPOs selected should be dealing with a minimum of two commodities.

2.5.3 Selection of FPO CEOs and FPO members

Each FPO had one respondent chosen at random. In order to highlight issues faced by Farmer Producer Organisation s, an additional 5 farmers from each of these FPOs' operating areas, who are FPO members, were conveniently picked. The participants were chosen with great care to ensure that each category contained the same sort of farmer in terms of cropping pattern, land holding, and other factors, avoiding the problem of extreme variables and outliers.

2.6 Data Analysis

Objective I: To study the present scenario of Farmer Producer Organisations in Maharashtra.

The objective is designed to identify the present scenario of FPO by using the following operational aspects

1. Area of operations
2. Number of members
3. Years of establishment
4. The commercial activities of FPO and the primary crops that FPOs in the study area is dealing with and
5. Financial aspect of FPO

Objective II: To study the impact of government schemes on Farmer Producer Organisations in Maharashtra.

The Objective is designed to analyse the impact of government schemes on Farmer Producer Organisations in Maharashtra. There are different agencies promoting FPOs. Such institutions are generally called Producer Organisations Promoting Institutions (POPI). There are different institutions in the state for promoting the FPOs and giving training to the members in managing their FPOs. The Institutions promoting the FPOs in the state will be identified. A schedule was prepared for the FPO people to know awareness regarding the government schemes and policies. Along with this before and after the adoption of the scheme were analysed.

Objective III: To identify challenges faced by Farmer Producer Organisations in Maharashtra.

This Objective is designed to identify challenges faced by Farmer Producer Organisations. A structured schedule was prepared for farmer members before going to the field for collecting Data. Proper measures were taken while constructing a schedule that motivate farmers for giving the correct information which is desired by the researcher.

The Rank Based Quotient (RBQ) technique was used given by Sabarathnam (1988) to rank these issues according to their severity.

$$RBQ\ mean = \sum \frac{fi(n+1-i)}{N \times n} \times 100$$

Where,

f_i = Number of farmers' responses for a particular factor under its rank

N = Number of farmers

i = Number of rank

n = Number of factors identified

3. RESULTS AND DISCUSSION

3.1 Impact of Government Schemes on Farmer Producer Organisations in Maharashtra

This objective shows, what effect the Government schemes have brought in the functionality of FPO by any means, be it monetarily, be it by adding members to the FPO, or by benefiting through government policies.

3.1.1 Awareness of government schemes and benefits by FPO

The Government of India has many institutes which help the FPO by promoting them and providing them services like giving them loans, and subsidies to help in building infrastructure by funding the FPOs. this study shows how many of the selected FPO are aware of the government schemes and policies. The major institute which provides help or support to FPOs are SFAC, NABARD, and World bank. The other institutes are private like NGO, Private financial institutes, and funds coming from foreign countries (Japan Poverty Reduction fund).

Table 3 shows that the FPO from all 4 districts of the study area 20 FPO were taken into consideration about awareness of government schemes and policies. Where the responses came in the close-ended format, further the responses are shown in the form of a clustered bar to explain them more easily.

Fig. 1 shows the detailed description of awareness and benefits of government schemes, out of 20 FPOs 90% of FPOs knew about the government schemes and they were getting the benefit of it. The remaining 10% of FPOs have no idea about government schemes. these FPOs were self-promoted FPOs, they contributed the capital by their own members and established the FPO on their own.

Table 3. Awareness of government schemes and benefits by FPO

Sr. No.	Name of FPO	Government Agencies	Aware of Schemes	Got Benefited	Still Getting Benefitted
Ahmednagar					
1	Amarsingh agro producer company limited	MACP	Aware	Benefited	Not getting benefitted
2	Unity agro farm producer company limited	Self-promoted	Aware	Not- benefited	Not getting benefitted
3	Real agro farmers producer company limited	Self-promoted	Aware	Not- benefited	Not getting benefitted
4	Seven hills farmers producer company limited	Self-promoted	Unaware	Not- benefited	Not getting benefitted
5	Mula valley farmer producer company limited	NABARD	Aware	Benefited	Getting benefitted
Aurangabad					
6	Krishi pratishthan producer company limited	WORLD BANK (ATMA)	Aware	Benefited	Not getting benefitted
7	Bhagwan krushi producer company limited	World Bank	Aware	Benefited	Getting benefitted
8	Mandana producer company limited	World Bank	Aware	Benefited	Getting benefitted
9	Latifpur agro producer company limited	Self-promoted	Aware	Not- benefited	Not getting benefitted
10	Lingdari farmers producer company limited	Dilasa NGO	Aware	Benefited	Not getting benefitted
Jalgaon					
11	Nav chaitanya farmers producer company limited	Japan Poverty Reduction Fund	Aware	Benefited	Getting benefitted
12	Aadishakti muktai krushi vikas farmers producer company limited	Self-promoted	Unaware	Not- benefited	Not getting benefitted
13	Girna farmers producer company limited	NABARD	Aware	Benefited	Getting benefitted
14	Tapi valley agro producer company limited	Japan Poverty Reduction Fund	Aware	Benefited	Getting benefitted
15	Dhartiputra agro producer company limited	Japan Poverty Reduction Fund	Aware	Benefited	Getting benefitted

Sr. No.	Name of FPO	Government Agencies	Aware of Schemes	Got Benefited	Still Getting Benefited
			Pune		
16	Shree satwajibaba agro producer company limited	SFAC	Aware	Benefited	Getting benefited
17	Fresh express farmer producer company limited	Self-promoted	Aware	Not- benefited	Not getting benefitted
18	Versatile agrofirst farmer producer company limited	SFAC	Aware	Not- benefited	Not getting benefitted
19	Rajuri agro producer company limited	Self-promoted	Aware	Not- benefited	Not getting benefiting
20	Vasundhara agri-horti producer company limited	NABARD	Aware	Benefited	Not getting benefitted

Source: Researcher's own computation

Table 4. Impact of government schemes on FPO

District	Name of FPO	Government agencies	Technical, Technological & Infrastructural benefit		Financial benefits
			Before Adoption	After Adoption	
Ahmed nagar	Amarsingh agro producer company limited	MACP Governed by World Bank	No cleaning and grading unit	Cleaning, grading units & Training	-
	Mula valley farmer producer company limited	Produce Fund by NABARD	-	Helped establishing FPO, salaries of CEO & training	Funding 5 lakh for 3 years
Aurang abad	Krishi pratishthan producer company limited	ATMA by World bank	Poor processing unit	Funded for new processing unit	50% of expenditure subsidised
	Bhagwan krushi producer company limited	ATMA by World bank	Poor processing unit	Funded for new processing unit	50% of expenditure subsidised
	Mandana producer company limited	ATMA by World bank	Poor wheat processing unit	New Wheat processing unit	50% of expenditure subsidised
	Lingdari farmers producer company limited	Dilasa Janvikas Pratishthan	-	New establishment of FPO & Technical training	-
Jalgaon	Nav chaitanya farmers producer company limited	Japan poverty reduction fund	-	-	Providing lone for establishment & improvement of FPO
	Girna farmers producer company limited	Produce Fund by NABARD	-	Helped establishing FPO, salaries of CEO & training	Funding 5 lakh for 3 years
	Tapi valley agro producer company limited	Japan poverty reduction fund	-	-	Providing lone for establishment & improvement of FPO

	Dhartiputra agro producer company limited	Japan poverty reduction fund	-	-	Providing loan for establishment & improvement of FPO
Pune	Shree satwajibaba agro producer company limited	SFAC	Lack of Fund And training	Training and Exposure of new farm technology	5-15 Lakh of Funding
	Versatile agrofirst farmer producer company limited	SFAC	Lack of Fund And training	Training and Exposure of new farm technology	5-15 Lakh of Funding
	Vasundhara agri-horti producer company limited	Produce Fund by NABARD	-	Helped establishing FPO, salaries of CEO & training	Funding 5 lakh for 3 years

Source: Researcher's own computation

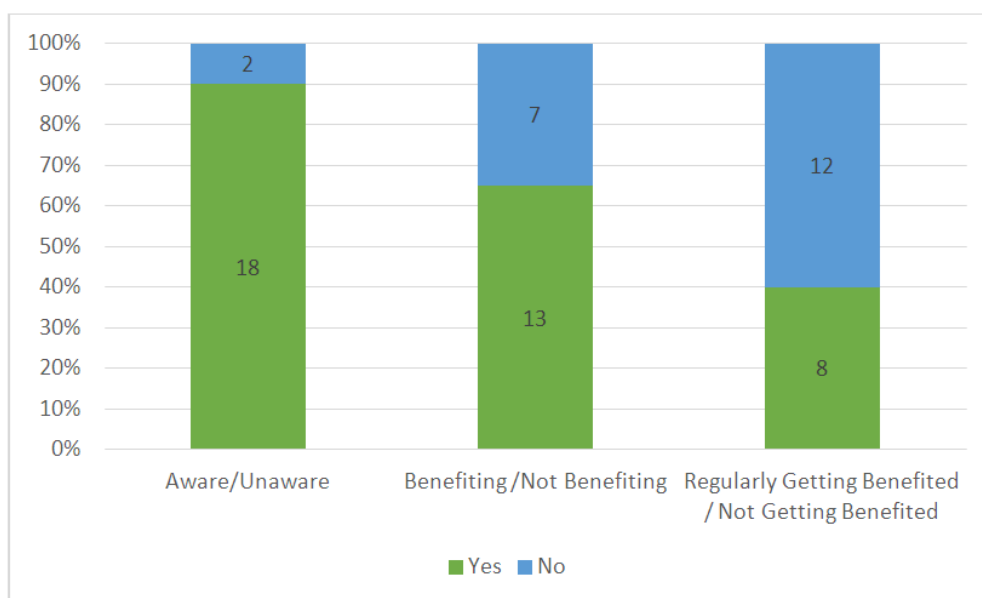


Fig. 1. Graphical Representation of awareness and benefits of government schemes

Source: Researcher's own computation

Furthermore, only 65 % of FPOs benefited from the government schemes and the remaining 35 % are not benefited from the government schemes. This is because most of them were Self-promoted FPOs and they have established their FPO on their own because they find the government work slow, time taking and they go through many documentations process which is time-consuming. And, out of this decrease in the number of FPO who are still getting the benefit of government schemes and policies are 40 % FPOs. These 8 FPOs are still getting the benefits of the schemes and policies provided by the government agencies and were aware of the new schemes and policies that came into the act with respect to FPO interests. The remaining 5 FPO which used to get the benefits before but had stopped getting them now provided us with the reason for lengthy document processing, time-taking procedures, and filing of the audit report according to the scheme's terms and conditions.

After taking the benefit from the schemes given by the government, changes occurred in the functionality and economy of the FPO. Listed down below are the names of the FPOs who got benefited from the government schemes and policies.

Table 4 is the summary of the total objective in which there are schemes provided by the government and the FPOs which have benefited from them. This table also shows the before and

after adoption scenario of the FPO which directly relates to the impact which the government schemes have done on FPO functional and economic areas.

3.2 Challenges Faced by Farmer Producer Organisations in Maharashtra

FPO farmer members were interviewed as part of a focus group. A pilot study was conducted to identify the primary obstacles that are holding the FPO idea back in Maharashtra.

The following were the primary issues identified:

1. Lack of technology
2. Lack of office building of its own
3. Lack of godowns/storage facilities
4. Problems obtaining appropriate financing on time
5. Inadequate contribution from members, as the majority are impoverished and unemployed
6. Lack of vehicles for transportation
7. Market at a distance

Data was collected from on the districts based on the primary problems mentioned in order to rate the problems by severity. These issues were ranked according to their severity using Sabarathnam's Rank Based Quotient (RBQ) technique (1988). Here the factor taken were 7, number of farmer as a sample size were 25

which is 5 from each FPO which are selected on random basis .

$$\text{RBQ mean} = \sum f_i(n+1-i) \cdot 100 / N \cdot n$$

Where,

f_i = Number of farmers response for particular factor under its rank
 N = Number of farmers
 i = Number of ranks
 n = Number of factors identified.

3.2.1 Challenges faced by the FPOs in Ahmednagar district

Five FPOs from the Ahmednagar district were chosen to study the district's significant challenges. The respondents were chosen at random from among the FPO farmer members. During the pilot survey, the key issues were identified. Table 5 shows the final outcome.

Table 5 shows that the major problems faced by the FPO of Ahmednagar district. Out of 7 identified problems, the major problem identified is the inadequate contribution of farmer members as the majority are impoverished and unemployed. While studying these problems this factor was the most significant in the Ahmednagar district. The RBQ mean of this problem was 81.71. The next was inadequate finance on time which has the RBQ mean of 76.57. It is because the majority of farmer

members were of marginal and small scale. The next main problem was the market at a distance which the farmer member has kept in 3rd rank of 59.42 RBQ mean. The other major problems of the districts were lack of transport, technology, storage and office building of its own which ranks IV, V, VI and VII respectively.

3.2.2 Challenges faced by the FPOs in Aurangabad district

5 FPOs from the Aurangabad district were chosen to study the district's significant challenges. These issues were ranked according to their severity using Sabarathnam's Rank Based Quotient (RBQ) technique. The responders were chosen at random from among the FPO farmer members. During the pilot survey, the key issues were identified. Table 6 shows the final outcome.

Table 6 shows that inadequate availability of finance on time and inadequate contribution by the farmer member of FPO with the RBQ mean scores of 85.14 and 72.57 were the most significant problem in Aurangabad district. The next most serious issues were lack of technology, storage and an office building of its own, with the RBQ mean of 63.42, 51.42 and 43.42. The FPO members in this district were least affected by issues such as a lack of transport because the market was nearby due to which the transport was easily available.

Table 5. Challenges faced by the FPOs in Ahmednagar district

Challenges	RBQ Mean	Rank
Inadequate contribution by member	81.71	I
Inadequate finance on time	76.57	II
Distant market	59.42	III
Lack of transport	58.28	IV
Lack of technology	52.00	V
Lack of storage	45.14	VI
Office building of its own	26.85	VI

Source: Researcher's own computation

Table 6. Challenges faced by the FPOs in Aurangabad district

Challenges	RBQ Mean	Rank
Inadequate finance on time	85.14	I
Inadequate contribution by member	72.57	II
Lack of technology	63.42	III
Lack of storage	51.42	IV
Office building of its own	43.42	V
Lack of transport	42.85	VI
Distant market	42.28	VII

Source: Researcher's own computation

3.2.3 Challenges faced by the FPOs in Jalgaon district

During the collection of data, measure was taken that the data which was collected is from the FPO's farmer members in which there are members of different age group and having different educational knowledge, which totally reflects the variety in challenges faced by them. 5 FPOs from the Jalgaon district were chosen to study the district's significant challenges from which 25 respondent were selected randomly.

Table 7 shows that the district's FPO was facing the major challenge of vehicles for transportation and resembling the same problem one was a distant market. Both problems are interrelated. If the market is at distance similarly the transportation problem emerges. The RBQ mean of both the challenges were 87.42 and 65.14. The next severe issue the Jalgaon's FPO were facing was inadequate contribution by the FPO member because of some poor farmers were not able to give an equal share. The RBQ mean of this was 61.71. The other issues were inadequate finance on time, lack of storage space, and office building of its own.

3.2.4 Challenges faced by the FPOs in Pune district

Five FPOs from the Pune district were chosen to study the significant challenges of the district. The responders were chosen at random among the FPO's farmer members. During the pilot

survey, the key issues were identified. Table 8 shows the final outcome.

Table 8 shows the challenges faced by the FPO in Pune district. The major challenges faced by them are lack of storage, not having their own building and inadequate finance on time. With the limited land holding near Pune city and the high prices of the land it's hard for the FPOs of Pune districts to get a storage facility and an office of their own to work. These challenges rated with in the top 3 with the RBQ mean of 82.28, 76.57 and 61.71 respectively. Lack of transport and distant market are interrelated to each other, if the vehicles are not available then transportation will be hard to take the supply to the market, which is at a distant from the storage place or godowns.

3.2.5 Comparative study of challenges faced by FPO in Maharashtra

The comparative study of FPO of Maharashtra from the selected 4 districts will tell us that the challenges faced by the FPO are severe and can be compared with the other districts. These are calculated by RBQ mean method. The study is shown in Fig. 2.

Fig. 2 shows that lack of technology is highest in Aurangabad and Jalgaon district with the RBQ mean of 63.42 and 61.14 respectively. Whereas the office building of their own is the least problem among all the district except Pune where the RBQ mean is raised

Table 7. Challenges faced by the FPOs in Jalgaon district

Challenges	RBQ Mean	Rank
Lack of transport	87.42	I
Distant market	65.14	II
Inadequate contribution by member	61.71	III
Lack of technology	61.14	IV
Inadequate finance on time	60.00	V
Lack of storage	46.28	VI
Office buildings of its own	18.28	VII

Source: Researcher's own computation

Table 8. Challenges faced by the FPOs in Pune districts

Challenges	RBQ Mean	Rank
Lack of storage	82.28	I
Office buildings of its own	76.57	II
Inadequate finance on time	61.71	III
Lack of transport	61.14	IV
Distant market	45.14	V
Inadequate contribution by member	41.14	VI
Lack of technology	34.28	VII

Source: Researcher's own computation

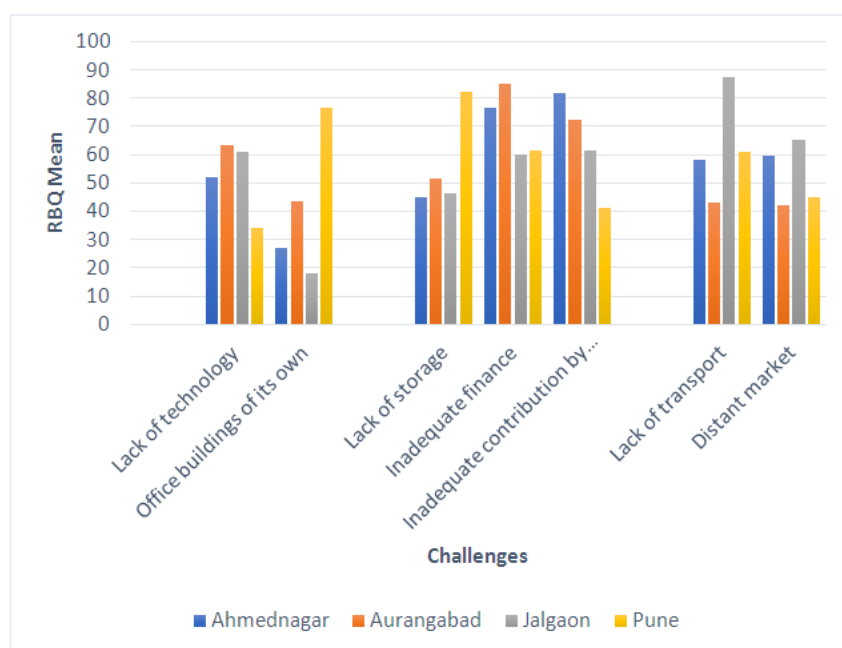


Fig. 2. Comparative study of FPOs in Maharashtra

Source: Researcher's own computation

up to 76.57. In the same district the major problem before having their own office building is lack of storage system. This is major in Pune district with the RBQ mean of 82.28. Inadequate finance in time and inadequate contribution by member as many of them are poor these two challenges were at the top of 2 districts in Aurangabad and Ahmednagar whereas lack of transport and distant market were the challenges faced by the FPOs of Jalgaon districts with the RBQ mean of 87.42 and 65.14 respectively.

4. CONCLUSION

It has been found that there were 4 producer organisation promotion institutes and one non-governmental organisation to set up 20 FPOs. The majority (46%) were promoted through the NABARD Produce Fund and World Bank scheme. As a result, NGOs and other associated organisations must take the initiative to educate rural communities about the benefits of FPOs and promote them. Crop-wise classification of FPOs in the study area was studied and the majority of crops were onion, pulses, and other vegetables made up the majority of the FPOs. For increasing the profit in crop production, the FPO needs to gain more knowledge about mixed cropping and allied agriculture practices. The research also concluded that 2 FPOs have the maximum financial turnover of 66.66 % whereas

the least turnover counted at 11.11%. The FPO with the maximum turnover is can grow in the field of technology and automation. New advanced technology should be used in the value addition and packaging and processing units to increase the value of your product. This will help to gain more profit as the return will equally improve the livelihood of the individual. Apart from all these betterment schemes have also helped monetarily by giving loans, providing 50 % of project expenditure, and funding the FPOs for the establishment and improvement.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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