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Assessing performance of horticultural farmers producer companies: Comparative case study

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ABSTRACT

Every year the horticultural sector of India faces huge quantity of food wastage due to lack of processing, value addition and post-harvest handling. Farmers Producer Company (FPC) can mitigate the loss through ensuring better value chain management. There are several horticulture based FPCs established in different parts of India. They have grown very fast and competing with agro-industries. The present study aimed to assess the performance of FPCs working in horticulture sector. The study was conducted in Maharashtra State of India by selecting three FPCs working in horticultural sector. Performance of these FPCs was assessed through Effectiveness Index developed for this study. Seven components *viz.* functional effectiveness, increase in income, increase in farmers share in consumers rupees, inclusiveness, sustainability of company, farmers satisfaction and empowerment were included in the index by following standard index forming protocol. Sahyadri Farms was found the best performing one among the selected FPCs, regarding effectiveness with a mean index score of 63.69 followed by Vasundhara Agro Producer Company Limited (50.20) and Junnar Taluka FPC Ltd. (41.29).

Keywords: Effectiveness, farmers' producer company (FPC), horticulture

INTRODUCTION

India is the second largest producer of fruits and vegetables in the world and produces 260 million tons of food grains. Despite this, India also faces huge post-harvest losses accounting for lack of proper handling practices and storage infrastructures. These post-harvest losses incurred due to inadequacies in storage and logistics account for Rs. 92,651 crores ($13 billion) per year.

According to the Committee on Doubling Farmers' Income, the proportions of produce that farmers are unable to sell in the market at the national level are 34 % and 44.6 %, for vegetables and fruits respectively and 40 % for fruits and vegetables together. This means, every year, farmers lose around Rs 63,000 crore for not being able to sell their produce for which, they have already made investments. It is also reported that only 10-11% of fruits and vegetables cultivated in India can be saved using cold storage facilities due to the expenses involved and lack of suitable facilities. Finance is another setback. To avert storage woes and lack of finance and liquidity; horticultural farmers are compelled to sell their produce immediately, within days of harvest, at any prevailing rate due to high perishability of horticultural crops. This covers distress sale and farmers do not realize the best price because of supply glut in the market. Farmers Producer Company may reduce this loss through improved value chain management. In India, the producer company concept has arisen as a new generation farmer's organization.

Fruits and vegetables are suitable sector which can provide 2-4 times higher income to farmers than cereals. Near about 23 per cent of total registered FPCs are working exclusively in horticulture and

many more are working in mixed approach *i.e.* combination of agricultural and horticultural crops as production options. FPCs can act as a potential driving force for agricultural and rural development. They are working as 'engines' of development that can uphold the pennon of rural development even ahead of local level, offering benefits to the rest of society (Blokland and Goue, 2007). In reality, FPCs have favorable position of scale economies applies to input purchases and accumulation, processing and marketing of the farmers produce in bulk. In both these cases, FPOs can bargain better prices. Through vertical and horizontal coordination as well as forward and backward linkage, FPCs work in value-addition processes which has not only enhanced their dealing power but also increased the share in consumers' rupee. FPCs have minimized the risk of farmers through promoting crop and livestock insurances. It has diminished the cost of information seeking, connecting smallholders to more complex market situation and making farmers acquainted with the competitive business environment through capacity building and empowerment.

There are several horticulture-based FPCs in Maharashtra which have grown very fast and competing with agro industries. The strategic and technological innovations in value chain, clear vision, strong planning and technical insight are the core factors which made the FPC a leader among all grapes exporting agencies. There is immense potential for FPCs to work similarly in the area of value-chain management, so that the huge amount of post-harvest losses can be saved and utilized for home consumption and exports. As the model is new, less studies have been carried out so far on assessing the performance of Farmers Producer Companies in horticulture. Therefore, the present study is aimed to assess the performance of FPCs working in horticulture sector.

MATERIALS AND METHODS

Study area: The study was conducted in Maharashtra State of India. The state is one of the pioneer states in India where the growth of Farmers Producer Companies is remarkably high. Three successful companies working in vegetable, fruits and overall horticulture and processing industry were selected from the state through purposive sampling based on five specific criteria *viz.* i. the FPC has been working for more than 5 years successfully; ii. it has a sizeable membership (more than 2000 members), iii. turnover has been more than Rs. 50 lakhs; iv. FPC has several reported success stories and v. it has a unique business model. The criteria based purposive sampling was useful to select an effective and functional companies working at ground level. Based on that three companies have been selected based on the growth. Junnar Taluka FPC Ltd. is a FPC in initial development stage and working in mainly vegetable sector. Vasundhara Agro Producer Company Limited was selected as a company working mainly in fruits and some vegetable crops at moderate stage of growth. Sahyadri Farms working both in fruits and vegetable was selected for the study as it has achieved a tremendous growth level. The data was collected from the members of their FPCs Pune and Nasik District of Maharashtra.

Operationalization of performance

In this research, we have operationalized the performance as how effectively the producer company carries out its functions. It is better related to organizational performance which indicates how successfully an organized group of people with a particular purpose perform a function. In an organization like Farmers Producer Company, it is important to take care of farmers' satisfaction, empowerment, increasing income of farmers, ensuring value chain management, functional easiness, inclusiveness etc. by combining all these, an Effectiveness Index was prepared which is used in this study.

Research design and survey instrument

In this study, an *Ex-Post Facto* research design was used. A semi-structured interview schedule was prepared. The interview schedule consisted of eighteen different socio-personal and socio-economic variables of respondents and an index was formulated to measure the effectiveness of horticulture-based producer company. The effectiveness index included seven components (1) Functioning efficiency, (2) Increase in income, (3) Increase in farmers share in consumers rupee (4) Inclusiveness, (5) Sustainability of Farmers Producer Company, (6) Farmers satisfaction and (7) Empowerment

The index was prepared based on the above-mentioned parameters and was calculated by the following equation.

$$E_{FPC} = (FE \times W_1 + I \times W_2 + FSC \times W_3 + Inc \times W_4 + S \times W_5 + FS \times W_6 + E \times W_7) / \Sigma^7_{i=1} \times 100$$

Where,

E_{FPC} = Indicated the effectiveness of the particular company

(1) FE = Functioning effectiveness, (2) I = Increase in Income, (3) FSC= Increase in farmers share in consumers' rupee, (4) Inc = Inclusiveness, (5) S = Sustainability of farmers producer company, (6) FS= Farmers satisfaction and (7) E = Empowerment

W_i is respective weight calculated based on Analytical Hierarchy Process (AHP) of experts rating to the seven components based on Saaty (2008) and Mukherjee *et al*., (2018c).

After consultation with the experts and reviewing a vast volume of literature, a rating scale was prepared for constructing the effectiveness index comprising the seven components. The effectiveness index was prepared following standard procedure. Twenty experts working in the top management for promoting farmers organizations were consulted and review of related studies were considered for constructing the index. The effectiveness index comprised of the seven following components.

(1) Functional effectiveness: A functional efficiency index with 1-5 point scale was developed to evaluate the functioning of FPCs. Ten most relevant dimensions were studied in this index measuring the functional effectiveness. Summation of the scores of 10 functioning variables used in the study yielded functioning score of a single respondent. The scores of members of a particular group were added together to get the functioning score of that FPCs. The index was calculated by dividing the actual score by the maximum possible score of functioning. A similar method was followed by Abadi (2010).

(2) Increase in income: Measurement of increase in income was calculated by outreaching the earlier income per year (*i.e.* before the intervention of the FPC) and the present income per year of the agricultural produce (*i.e.* after the intervention of the FPC).

(3) Increase in farmers share in consumer rupee: This was calculated by outreaching the earlier farmers share (i.e. before the intervention of the FPC) and the present farmers share of the agricultural produce (*i.e.* after the intervention of the FPC).

(4) Inclusiveness: The component inclusiveness was added as dimension in effectiveness to study how inclusive the companies were in including the backward class and poorest of the poor. The inclusiveness was studied by an index developed for the study including the category of farmers, caste, gender and financial class.

(5) Sustainability of the company: Sustainability of company is very much important. If a source of income is not sustained, it cannot provide livelihood security. The sustainability of FPC was measured by a schedule developed for the purpose. This included the growth trends of fixed and capital assets of company and most importantly the human resources were considered.

(6) Farmers satisfaction: The farmers satisfaction of the FPC services based on the selected dimensions was measured by an index developed for that purpose following the procedure given by Edwards (1957). This index consisted of 15 statements with 1-5 point of scale to which the respondents were asked to give their responses. The responses were averaged to get respondents satisfaction.

(7) Empowerment: Empowerment of farmers due to joining of FPC was measured by an index developed for the purpose following the procedure given by Edward (1957). This index consisted of 14 statements covering all aspects of empowerment with 1-5 point of scale on which the respondents were asked to give their responses.

The response of all seven components in this Effectiveness index were normalized by z transformation and then averaged. Similar methods were also followed by Mukherjee *et al*., (2011) and Nikam, (2013).

The weights for each component were assigned based on experts judgments using Analytical Hierarchy Process (AHP) depicted in Table 1 which indicates, the empowerment was weighted highest (eigen value = 0.26) followed by sustainability of producer company (eigen value = 0.20), members farmers satisfaction (eigen value = 0.17). Increase in income and share in consumers rupee was weighted next Eigen value 0.14 and 0.11 respectively. The consistency ratio of the AHP was 0.147 and consistency index 0.0991. The CI should be less than 0.1 which satisfies the result. The consistency index score indicated the consistency in judges' ratings.

Table 1 : Effectiveness index weight scores for various components of FPCs

Attribute	Functional efficiency	Income	Share in consume rupee	Inclusive-ness	Sustaina-bility	Satisfac-tion	Empower-ment	Eigen-value
Functional efficiency	1.0	0.33	0.40	0.50	0.29	0.31	0.25	0.05
Increase in income	3	1.00	1.50	2.00	0.67	0.80	0.50	0.14
Share in con-sume rupee	2.5	0.67	1.00	1.50	0.50	0.57	0.40	0.11
Inclusiveness	2	0.50	0.67	1.00	0.40	0.44	0.33	0.08
Sustainability	3.5	1.50	2.00	2.50	1.00	1.25	0.67	0.20
Satisfaction	3.25	1.25	1.75	2.25	0.80	1.00	0.57	0.17
Empowerment	4	2.00	2.50	3.00	1.50	1.75	1.00	0.26

Note: CR=0.147; CI=0.0991

Sampling and data collection

Focused group discussions (FGDs) and series of key informant interviews were carried out to identify the aspects of effectiveness. Additionally, previous effectiveness studies were also reviewed to prepare the survey instrument. The survey instrument was sent to experts for their comments and possible modification and improvement were done based on their recommendations. For easy understanding of the farmers, the instrument was translated in *hindi* (common language) and a pilot test of 20 farmers was done to further clarify the questions. In-depth interviews were conducted with key informants to ensure the triangulation of data. Proper care was taken to make the respondents comfortable and the unbiased recording of the data was ensured. The data were collected from 50 randomly selected members of the company but due to incomplete response some interview schedules were rejected. Finally, a sample of 34 respondents of Vasundhara Agro Producer Company; 37 respondents from Junnar Taluka FPC Ltd. and 38 respondents of Sahyadri Farms were considered for analysis.

Statistical analysis: Comparison of socio-economic characteristics of farmers across the company were done through non parametric tests. For the statistical analysis, the data were analyzed using MS Excel and SPSS 20 software.

RESULTS AND DISCUSSION

Profile of selected Farmers Producer Companies:

Assessment of effectiveness of FPCs starts with comparative profile study. It is important to understand the structural and functional difference of selected FPCs for better comparison as a case. The comparative profiles of selected FPCs are depicted in the Table 2.

Vasundhara Agri-Horti Producer Company Limited

Vasundhara Agri-Horti Producer Company Limited (VAPCOL) is a pioneering organisation functioning for the remuneration of farmers' family in tribal areas across various states of India. The company was established in July, 2004 with help of BAIF (Bharatiya Agro Industries Foundation) organization. Presently there are 48 producer groups consisting of 41,000 farmers from the state of Maharashtra, Gujarat, Rajasthan, Uttar Pradesh, Madhya Pradesh, and Chhattisgarh. The turnover of the company is estimated as Rs 17 crores.

Junnar Taluka Farmers Producer Company Ltd.

Junnar Taluka Farmers Producer Co. Ltd (JTFPC), promoted by Vegetable Growers association of India with support of Small Farmers Agribusiness Consortium (SFAC), (Ministry of Agriculture,

Table 2 : Comparisons of the profiles of selected Farmers Producer Company

Particulars of selected Producer Companies	Vasundhara Agro Producer Company Limited	Junnar Taluka FPC Ltd.	Sahyadri Farms
Year of Registration	2004	2013	2011
Promoting organization	BAIF	Veg. Growers Association of India	Own
Ownership model followed	Institutional	Individual	Individual
No. of members	41000 farmers of 48 producer groups	1600	1000
Area of operation	Maharashtra; Gujarat; Rajasthan; UP; Madhya Pradesh; Chhattisgarh	Pune, Maharashtra	Nasik, Maharashtra
Turnover (Rs. crores)*	17	5	500
Products marketed	Cashew, Mango and Amla value added products	All vegetables, pomegranate, grapes	All fruits and vegetables
Market landscape	National and international market	Local and Regional Markets	National and International markets
Service provided	Marketing, Financial assistance, Managerial support etc.	Supply of inputs, training of members, Value addition and marketing etc.	Financial assistance, crop insurance, Food processing, marketing, production improvement, Training etc.

Note : * approximate estimation

Govt. of India), is a registered Farmers Producer Company under the Companies act 1956. The company was established in the year 2009 is Pune, Maharashtra, with the hand holding of Vegetable Growers Association of India. This company is involved in crop production, crop protection and exploring marketing platform to the producer members in ameliorating the economic status by value addition to their produce.

The objectives of the company are collectivize the small vegetable growers, improve the standards of living through better use of improved technology of vegetable production, processing and marketing; minimize the environmental degradation while maintaining sustainable profits and provide consultancy in the field of horticulture especially for promotion of organic farming.

Sahyadri Farms

'Sahyadri Farms' is working as a Farmers Producer Company since 2011 in Nasik, Maharashtra. It is a 100 percent farmer's owned and professionally managed Producer Company. It is operationally sound with best use of production and processing technology. Today, the company is a leading exporter of grapes in India, exporting ~14 percent of the total export of grapes to Europe. There are more than 3000 farmers working day and night for the company. It is India's leading FPC which is producing, marketing and exporting of frozen vegetable, value added fruit products, *etc*. to Germany, USA, Norway and many other countries.

Socio-economic profile of FPC members

The socio economic profile of selected FPC members' from all three FPCs was studied for comparison. The results are presented in the Table 3.

Table 3 : Socio-economic profile of members of different FPCs

Characteristics	VAPCOL (n=34)	Sahyadri Farms (n=37)	Junnar Taluka (n=38)
Age			
a. Young (18-35 years)	11 (32.4)	20 (54.05)	17 (44.7)
b. Middle aged (36-50 years)	6 (17.6)	9 (24.32)	16 (42.1)
c. Old (51-80 years)	17 (50.0)	8 (21.62)	5 (13.2)
Gender			
a. Male	16 (47.1)	32(86.5)	37 (97.4)
b. Female	18 (52.9)	5 (13.5)	1 (2.6)
Education level			
a. Middle schooling	18 (52.9)	8 (21.6)	21 (55.3)
b. Higher secondary	14(41.2)	16 (43.2)	13 (34.2)
c. Graduate	2 (5.9)	13 (35.1)	4 (10.5)
Family size			
a. Nuclear (up to 5)	10 (29.4)	12 (32.4)	10 (26.3)
b. Joint family (6 and above)	24 (70.6)	25 (67.6)	28 (73.7)
Farm Size			
a. Up to 1 ha	34 (100.0)	24 (64.9)	25 (65.8)
b. More than 1 ha	0 (0.0)	13 (35.1)	13 (34.2)
Social participation			
a. High	32 (94.1)	33 (89.2)	33 (86.8)
b. Low	2 (5.9)	4 (10.8)	5 (13.2)
Extension agency contact			
a. High	33 (97.1)	33 (89.2)	23 (60.5)
b. Low	1 (2.9)	4 (10.8)	15 (39.5)
Urban contact			
a. High	28 (82.4)	37 (100.0)	37 (100.0)
b. Low	6 (17.6)	0 (0.0)	0 (0.0)
Training experience			
a. Never	0 (0.0)	0 (0.0)	0 (0.0)
b. Once	0 (0.0)	0 (0.0)	0 (0.0)
c. Two and more	34 (100.0)	37 (100.0)	38 (100.0)
Members of Other Group			
a. No	0 (0.0)	5 (13.5)	17 (44.7)
b. Yes	34 (100.0)	32 (86.5)	21 (55.3)
Progressiveness			
a. Less	0 (0.0)	0 (0.0)	0 (0.0)
b. Moderate	0 (0.0)	0 (0.0)	0 (0.0)
c. High	0 (0.0)	3 (8.10)	0 (0.0)
d. Very high	34 (100.0)	34 (91.90)	38 (100.0)

Attitude towards the FPC			
a. Positive	34 (100.0)	36 (97.30)	38 (100.0)
b. Negative	0 (0.0)	0 (0.0)	0 (0.0)
c. Neutral	0 (0.0)	1 (2.70)	0 (0.0)
Annual Income			
a. 0-1 lakh	30 (88.2)	0 (0.0)	0 (0.0)
b. 1-2 lakh	4 (11.8)	0 (0.0)	16 (42.1)
c. 2-3 lakh	0 (0.0)	13 (35.1)	22 (57.9)
d. More than 3 lakh	0 (0.0)	24 (64.9)	0 (0.0)

Note: Figures in parentheses indicate percentage value

The Table 3 indicates that majority of the farmers were of young categories for Sahyadri farms (54.05%) and Junnar Taluka FPC (44.70%). In case of VAPCOL majority of the members were found much older and experienced than others. There was no significant difference in age groups recorded. Also, majority of the respondent members were male in both the cases of Sahyadri farms and Junnar Taluka FPC, but in case of VAPCOL, majority (52.90%) were female. A similar case was also recorded for level of education and family size. Majority of the VAPCOL farmers were small and marginal in nature having less than 1 hectare land holding. Although, in case of Sahyadri farms, it was found that 64.90 % of the farmers were marginal in nature where as 35.10 % had having land holding more than 1 hectare. In the vegetable based farmer producer company at Junnar Block 65.80 % of the farmers were marginal. Social participation is an important parameter of socioeconomic status. The highest social participation was recorded for VAPCOL farmers (94.10 %) followed by Sahyadri farms (89.20 %) and Junnar Taluka Farmer Producer Company (86.60 %). Similar case can also be seen in case of extension agency contact where, a majority of the VAPCOL farmers (97.10 %) had high level of extension agency contact followed by Sahyadri farms (89.20 %). For training experience it was found that all of the producer company members attended two and more trainings in their life time. Majority of them were members of other groups like self-help groups, co-operatives etc. The number is highest in case of VAPCOL because, it is following institutional model where several cooperatives combine to form farmers producer company, so apart from the membership in FPOs, the VAPCOL farmers were also associated in cooperatives. Sahyadri farm was developed from self help groups, that is why 86.50 % of the farmers had membership in other groups but the case is different for Junnar Taluka where, individual farmers associated with each other to form the company so, only 55.30 % farmers were associated with other groups. In case of progressiveness and attitude, it was found that majority of the farmers in all the groups were progressive in nature and have positive attitude towards FPCs. The increase in annual income was found to be the highest in case of Sahyadri farms, in which 64.90 % of the members where earning more than 3 lakh after joining Sahyadri farms whereas 35.10 % earn between 2 to 3 lakh per year. The majority of the farmers of Junnar Taluka (57.90 %) were earning 2-3 lakh and 42.10 % of them has enhanced their income up to Rs. 1 to 2 lakhs after joining the FPC. The VAPCOL is a association of very small farmers and it was found that the majority (88.20 %) had able to enhance income up to 1 lakh per annum after joining the company, while 11.8 % up to 1 to 2 lakh per annum.

Comparative effectiveness of selected Farmers Producer Companies

It is essential to assess the effective of FPCs working in the horticulture sector. Producer Company wise mean score of the components of effectiveness is depicted in Table 4. Functional efficiency wise, all the companies scored more than 4.5 out of 5, which is a quite high score. It indicated that the companies were well functioning. The highest score was obtained by Sahyadri Farms (4.55) as it has its own management team and qualified salaried staff. Functional efficiency wise the companies are nearly at par with each other.

Table 4 : Overall effectiveness of FPCs based on components mean score

Company	Functional efficiency	Increase in Income (%)	Increase in share in consumer's rupee (%)	Inclusive-ness	sustaina-bility	satisfac-tion	Empower-ment
VAPCOL	4.51	31.71	34.71	0.76	0.81	4.44	4.47
Sahyadri Farms	4.55	67.41	32.08	0.67	0.92	4.49	4.42
JTFPC Ltd.	4.52	32.29	32.18	0.75	0.69	4.37	4.44

As per the data, the highest percentage increase in annual income of members farmers before joining the company was observed in Sahyadri Farms (67.41%). The results showed that farmer's income had enhanced in a range of 32 to 67 per cent after joining Farmers Producer Companies.

Farmers share in consumer's rupee was another component, which indicates level of value addition. It was found that farmers share in consumers rupee had increased 32-35 per cent more than earlier. It is mainly due to the value addition at producer company level. The highest increase was found for VAPCOL (34.71 %) which was due to well-established marketing channel by the company. Beside this door to door picking and delivery to retail market and marketing efficiency has culminated the change.

Inclusiveness is another indicator used in this index to have a look on whether the companies are working with the poor and backward section of society or not. It was found all the FPCs were inclusive in nature. VAPCOL farms scored 0.76 out of 1 whereas Junnar Taluka FPC Ltd. scored 0.75 whereas in case of the Sahyadri Farms the members are already working in grapes and a large number of the members were rich before joining the FPC which is reflected in the lesser inclusiveness score (0.67). Sustainability of an organization is key factor in effectiveness. The big FPCs scored better in these parameters. In sustainability parameter, Sahyadri Farms, VAPCOL and Junnar Taluka FPC Ltd. got the index score 0.92, 0.81 and 0.69 respectively. Satisfaction of member farmers was high for all the FPCs. The score obtained by the companies was in the range of 4.37 (Junnar Taluka FPC Ltd.) to 4.49 (Sahyadri Farms). It indicates the farmers perceived level of satisfaction after joining Producer Company. Empowerment is another important parameter for effectiveness. The companies which empowered the member better were Vasundhara Agro Producer Company Limited (4.47) followed by Junnar Taluka FPC Ltd. (4.44) and Sahyadri Farms (4.42). The overall mean score of farmers satisfaction were more than 4.4 out of the scale of 5.

The effectiveness score of different Farmers Producer Companies are depicted in Table 5. The overall index score indicates that the Sahyadri Farms is the best among other regarding effectiveness with mean score 63.69 followed by Vasundhara Agro Producer Company Ltd (50.20) and Junnar Taluka FPC Ltd. (41.29). The reason behind this are that the companies are good in empowering their members, have a sustainable business venture, the members were highly satisfied with the performance of company and effective in enhancing farmers income.

To study the whether the companies significantly differ in effectiveness, one way ANOVA was conducted. The F value was 68.142 which were significant at 1 per cent level of significance. It is observed that the companies significantly differed from each other in effectiveness (Table 6).

Table 5 : Overall effectiveness of Farmer Producer Company

FPCs	Mean	SD	Range	Minimum	Maximum
VPCOL	50.20	10.64	46.31	27.67	73.98
Sahyadri Farms	63.69	12.33	52.98	34.69	87.67
JTFPC Ltd.	41.29	10.84	49.10	17.17	66.27

Table 6 : Effectiveness of FPCs (ANOVA)

Category	Sum of Squares	df	Mean Square	F	Sig.(p)
Between Groups	1.159	7	0.166	68.142	0.000
Within Groups	.693	285	0.002		
Total	1.852	292			

Effectiveness of any Farmers Producer Company depends on how better it is empowering farmers. How it is influencing the social, political, psychological and economic empowerment parameters of the rural community. Farmers Producer Company provided a platform for farmers to join together, involve together and work with groups. This enhanced farmer's interaction with different progressive farmers (Mukherjee *et al*., 2020). As per the experts rating, empowerment was weighted highest (0.26), the FPCs who ensured better empowering farmers through training and capacity building exercise in horticultural products gained major weightages. Sustainability of income was another important parameter realized to be the important in effectiveness of FPCs. It depends upon sales growth, membership growth, successful ventures made, profit growth, market linkages and several others factors. Farmer producer companies can play a more important role in sustainable agricultural intensification for smallholders, particularly by addressing the constraints like the size of landholding, access to credit, irrigation, and marketplaces (Reddy *et al*., 2020). Satisfaction of the producers are the next important index parameter which includes timeliness of inputs delivery, quality service, dividend distribution, income enhancement etc.

CONCLUSION

In this study, an attempt was made to measure the performance of horticulture based farmers producer companies with an effectiveness having seven components namely, functioning efficiency, increase in income, increase in farmers share in consumers rupee inclusiveness, sustainability of Farmers Producer Company, farmers satisfaction and empowerment. The component empowerment was weighted highest followed by sustainability of producer company members, farmers satisfaction and increase in income. Sahyadri Farms was the best among other regarding effectiveness with mean score 63.69 followed by and Vasundhara Agro Producer Company Limited. (50.20) and Junnar Taluka FPC Ltd. (41.29). The reason behind this may be that the companies are good in empowering their members, having a sustainable business venture, the members were highly satisfied with the performance of company and effective in enhancing farmers income. The three parameters, farmers empowerment, FPC sustainability and farmers satisfaction cumulatively contributing 63 % of index weights. To be effective, the horticultural FPCs need to focus on these three parameters most.

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