

RESEARCH ARTICLE

A Study on Performance of Farmer Producer Organisations in Telangana state

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ABSTRACT

The present study was conducted A Study on Performance of Farmer Producer Organisations in Telangana state during 2019-2022. Ex post facto research design was adopted in the present investigation. Telangana state was purposively selected for the study. The study was conducted in five districts selected namely Karimnagar, Janagam, Nizamabad, Jagitial, Adilabad. The respondents were selected randomly based on the location of FPOs. Total 360 farmers were selected as respondents for the current study. Out of 360 farmers 180 were selected based on their membership in FPOs and 180 Non-FPO members. From each FPO 20 members were selected randomly. From study it was revealed that majority (45.56 %) of respondents perceived the performance of FPOs as average, followed by poor (30.00%) and good (24.44%). The ANOVA analysis revealed that BBWS Farmer Producer Company was having higher mean values which means it was performing better than other Farmer producer organisations.

Key words: Performance farmer producer organisation; FPOs; Network services.

Even though India is the primary producer of fruits, vegetables and milk production in the world but still our farmers lack of farm competitiveness (Narrod et al 2007) and due to inability of the farmers to meet food safety standards it also restricts their export competitiveness (Roy and Thorat 2008). Nearly 14 per cent of the population (189.2 million) is still malnourished in India, according to State of Food Security and Nutrition in the World, 2020 report. The Global Hunger Index 2020 placed India at the 94th position among 107 countries. Achieving 'zero hunger' by 2030 is a humungous challenge, And yet, India accounts for only 2.4 per cent of the global land.

The average size of landholding per state is 1.08 hectares, according to the latest agricultural census 2015-16. Farmers in half the Indian states are marginal (with land less than 1 ha); the remaining are small farmers (land holdings of 1-2 ha). Shrinking acreage is one of the main challenges to Indian agriculture, which is making the profession less economical for farmers. As per the National Sample Survey Office (NSSO) more than 50% of small and marginal farmers in India are in debt. Small land

holdings produce low annual agricultural production and marketable surplus, and eventually trap farmers into a vicious cycle of debt. Small and marginal farmers constitute the largest group of cultivators in India. Nearly 85 per cent of operational holdings are two hectares or less than two. Moreover 66 per cent of these have less than hectare (Singh 2012).

Problems faced by Indian small farmers are multi-fold. Being smallholders, these farmers suffer from some inherent problems such as absence of economies of scale, access to information and they are helplessness to participate in the price discovery mechanism. The participation of farmers is observed to be restricted by limitations like poor vertical and horizontal linkages and limited access to market, training and to finance (Karina, et al., 2012). These small and marginal farmers in the country are facing problems of fragmented land holdings, quality and ensured supply of inputs, suitable irrigation facilities, lack of mechanization, soil erosion, marketing of agriculture produce, inadequate storage, and transport facilities, scarcity of capital etc. (Mondal 2010).

The above situation needs an integrated and

multi-dimensional approach for overall sustainable agriculture and food systems in the country. In this context, a sustainable solution lies in collectivization of agricultural produce and value addition/marketing by achieving the economy of scale and creating commodity specific agri-value chains with participation of agri entrepreneurs and primary producers on the equitable terms. One of the potential alternatives for effective marketing is mobilising farmers for group action, for arranging inputs and collective marketing so as to benefit from economies of scale. Keeping this in mind, mobilisation of farmers into “Farmers’ Organisations (FOs)” for group activities is very much imperative. As a matter of fact, the collectivisation of producers, especially small and marginal farmers, into producer organisations has globally emerged as one of the most effective pathways to address various challenges in agriculture.

Farmers’ organisations are essential institutions for the empowerment, poverty alleviation and advancement of farmers and the rural poor. (FAO, 2006).

NCF, 2006 stated that “FOs should be promoted to combine the advantages of decentralised production and centralised services, post-harvest management, value addition, and marketing.”

A Farmer Producer Organization / Company is a group of farmers or producers to carryout business activities related to the primary produce, product or related inputs. It is a registered body that is registered under Section IX A of companies Act, 1956 and a legal entity. Producers are the shareholders in the organization. Each member in a FPO can have only one vote, but can contribute different amounts of share capital. (<https://www.nabard.org>)

Keeping in view the importance of FPO in enhancing the livelihood of small and marginal farmers the present study has been proposed with following objective to measure the performance of Farmer producer organizations.

METHODOLOGY

The State of Telangana was selected purposively as the investigator hails from the same state. Hence the study in the investigator’s area can help the researcher to elicit the data easily.

Selection of district : Jagitil, Janagam, Nizamabad, Adilabad and Karimnagar were selected randomly.

*Selection of Farmer Producer Organisations:*Frame

of registered FPOs in Telangana state was obtained from the Small Farmers Agribusiness consortium (SFAC) and the National Bank for Agriculture and Rural Development (NABARD). At the time of data collection, a total of 460 FPO were registered under SFAC, Central Sector Scheme (SSC) and NABARD (Ministry of Agriculture & Farmers Welfare, 2022). All the FPOs representative were contacted telephonically (some through personal visits also) in order to check the status. The information obtained was tabulated under functional and non-functional FPOs. From the final frame 9 functional FPOs having more than three years of operation were selected randomly, consequently a total of 9 FPOs were selected for the present study.

Selection of the respondents: The respondents were selected randomly based on the location of FPOs. Total 360 farmers were selected as respondents for the current study. Out of 360 farmers 180 were selected based on their membership in FPOs and 180 Non-FPO members. From each FPO 20 members were selected randomly.

Development of a standardized index to measure the performance of farmer producer organisations: Performance is one of the criteria for measuring the efficacy of an organisation, institution or group. It is Operationally defined as the extent to which farmer producer organisation are deemed to perform better or poor according to the criteria related to farmer producer organisation objectives.

Based on the review of literature and discussions with experts, four dimensions of performance such as operational, economic, management and well-being performance were finalised. In the first stage, a list of 15 indicators were identified under four dimensions. The selected indicators would reflect different aspects of each dimension to determine the overall performance of the FPO. The Performa containing four dimensions and respective indicators of performance index was given to 200 judges by means of google forms and handed over personally for their judgment. The evaluation was obtained from experienced and senior behavioural scientists in the field of Social Science, Extension Education and professionals from the Department of Agriculture. Experts were asked to assess the relevancy of four dimensions and indicators. The degree of relevancy of each dimension and indicator had to be given on a three-point continuum. The comparative scores of 3, 2 and 1 were assigned

for the “most relevant” (MR), “relevant” (R) and “not relevant” (NR) responses, respectively. Out of 200 judges, 37 judges had returned the performa after duly recording their judgments in a stipulated span of one month. Among the thirty-seven responses, seven were incomplete and inappropriate for the analysis and they were eliminated. The thirty responses were found to be appropriate for the item analysis.

Selected indicators :

Operational performance : Network linkages, Technical services, Extension services, Input services

Economic performance : Financial services, Marketing services, Sales and turnover, Operating profit

Managerial performance : Members mobilisation, Infrastructure development, Human resource development, Managerial services.

Well-being performance : Farmer satisfaction, Empowerment of members, Sustainability of FPOs in long run.

Thus, the data was exposed to Principal Component Analysis, which has revealed that out of the total fifteen indicators selected for the study, six namely Network linkages, input services, marketing services, human resource development, managerial services and farmer satisfaction contributed for more than 71.00 per cent of the variance and with Eigenvalue greater than one. (Table 1).

Indictors	Initial eigen values	% Variance	Cumulative variance
Managerial services	2.813	18.756	18.756
Farmer satisfaction	2.033	13.552	32.309
HRD	1.773	11.819	44.128
Marketing services	1.633	10.884	55.012
Network linkages	1.321	8.804	63.816
Input services	1.079	7.190	71.006

Analysis of variance (ANOVA) : This arithmetical process was used to find out the test of significance of the performance of farmer producer organizations with regard to their scores. The following procedure was adopted for analysis of variance.

Correction factor: correction factor was calculated by using the following formula

$$C. F = \frac{(\text{Grand score})^2}{\text{Total number of observations}}$$

Total sum of squares (TSS) : The total sum of squares (TSS) is the sum of squares of the deviations of the

variable values from their mean. It was calculated as follows.

$$TSS = (X_{12} + X_{22} + X_{32} + \dots + X_{N2}) - CF$$

$$SS \text{ between froups} = \frac{F_1^2}{N_1} + \frac{F_2^2}{N_2} \dots \frac{F_K^2}{N_K} - C. F$$

Where

SS= Sum of squares

F_i = Total of the i_{th} factor having Ni values and

N_i=N for I=1,2,...k

Sum of squares within groups (or) Error sum of squares (SS) between groups from total sum of squares (TSS).

The total sum of squares within groups = TSS – S.S between group.

Source of variation	DF
Between groups	k-1
Within groups	N-k
Total	N-1

$$MSS = \frac{\text{Sum of squares}}{\text{Corresponding degrees of freedom}}$$

By this formula, mean sum of squares for both groups and error were calculated

F-value: F value is the variance ratio which was calculated as follows:

The significance of the calculated F-value was tested against the tabulated value “F” at (K-1), (N-K) degrees of freedom.

Conclusion based on F-value: If calculated F value is less than F tabulated value at 5 per cent level of significance, we accept null hypothesis and conclude that there is no significant difference between performance of three FPOs. If calculated F value is greater than F tabulated value at 5 per cent level of significance, we reject null hypothesis and conclude that there is significant difference between performance of three FPOs.

RESULTS AND DISCUSSION

Overall performance of FPOs : Based on the performance the FPOs were categorised into four categories namely poor, average and good by using indicator wise total scores obtained on Performance Index. The results are presented in Table 2.

An over view of the Table 2 revealed that a majority (45.56 %) of respondents perceived the performance of FPOs as average, followed by poor (30.00%) and good (24.44%).

Table 2. Overall Performance of farmer producer organisations

Category	Member farmers (n=180)		Mean	SD
	No.	%		
Poor	54	30.00	122.44	4.70
Average	82	45.56		
Good	44	24.44		
Total	180	100.00		

Overall, the performance of FPOs was average to poor. This was due to insufficient knowledge on the business concept of FPOs among farmers and their inability to generate capital to do activities and provide service to their members. FPO wise performance revealed that the FPO was perceived as a good performing FPO to average which signifies their high external linkages, group leadership, high frequency of group participation, team spirit, training opportunities which helped the FPO to perform good than compared to other FPOs promoted. the poor performance could be attributed to their poor leadership, group participation, team spirit and training opportunities. Overall, the performance of FPOs was average to poor. This was due to insufficient knowledge on the business concept of FPOs among farmers and their inability to generate capital to do activities and provide service to their members. FPO wise performance revealed that the FPO was perceived as a good performing FPO to average which signifies their high external linkages, group leadership, high frequency of group participation, team spirit, training opportunities which helped the FPO to perform good than compared to other FPOs promoted. the poor performance could be attributed to their poor leadership, group participation, team spirit and training opportunities. These results were in similar with findings of *Amitha (2020)*.

Comparison of performance of selected FPOs: In the present study (Table 3), to know the variation in performance of selected FPOs analysis of variance (ANOVA) was used. Through this, the variation in performance of three FPOs was studied.

The calculated F value (12.12) was higher than the table value (1.99). The F value was significant at 0.05 level of probability. Hence, the empirical hypothesis was accepted and null hypothesis rejected. Therefore, it could be concluded that there was a

Table 3. ANNOVA test results showing comparison of performance of selected FPOs

Name of the FPO	Mean values
Doosgam Farmer Producer Company	1.45
Dhammanapet Farmer Producer Company	1.4
Kandugula Farmer Producer Company	2.70
BBWS Farmer Producer Company	2.75
Thatipally Farmer Producer Company	2.2
Kistampet Farmer Producer Company	1.75
Jaikisan Farmer Producer Company	2.4
Vayuputhra Farmer Producer Company	2.35
Rekonda Farmer producer company	2.45
F Cal = 12.12 F tab = 1.99	
*Significant 1% at level of significance	

significant difference between the mean level of performance of FPOs.

Performance of Farmer Producer Organisations based on the services:

Operational performance:

Network services: It was noticed from the Table 4 that a majority (40.00%) of the respondents perceived the network services provided by all FPOs were average followed by poor (31.11%) and good (28.89%). The results of the study were in agreement with that of studies of *Amitha (2020)*. The probable reason for this kind of distribution might be because the all FPOs were recently formed and this will take long time to establish strong relationship with other institutions and also FPO have to show profits and growth to make connections with seed distributors and manufacturers.

Input services : Majority (43.89%) of the respondents observed input supply services provided by all FPOs were good followed by average (36.67%) and poor (19.44%) The probable reason for this kind of distribution might be because the primary aim of the FPOs is to cater needs of the farmers so as they providing inputs at lesser price than market price and in right time at right place. Similar results were observed in the studies of *Patkar et al. (2012)* and *Singh (2012)*.

Financial performance :

Marketing services: Majority (44.45%) of the respondents perceived marketing services provided by all FPOs were poor followed by average (33.33%) and good (22.22%). The probable reason might be due to the lack of storage facilities, inadequate market infrastructure, transportation difficulties, and

Table 4. Distribution of respondents based on services provided by the FPO

Category	No.	%	Mean	SD
<i>Operational performance</i>				
<i>Network services</i>				
Poor	56	31.11		
Average	72	40.00	18.01	2.31
Good	52	28.89		
<i>Input services</i>				
Poor	35	19.44		
Average	66	36.67	17.07	1.61
Good	79	43.89		
<i>Economic performance</i>				
<i>Marketing services</i>				
Poor	80	44.45		
Average	60	33.33	14.04	1.87
Good	40	22.22		
<i>Managerial performance</i>				
<i>Human resource development</i>				
Poor	46	25.56		
Average	72	40.00	18.70	1.91
Good	62	34.44		
<i>Managerial services</i>				
Poor	37	20.56		
Average	87	48.33	23.29	2.18
Good	56	31.11		
<i>Well-being performance</i>				
<i>Farmer satisfaction</i>				
Poor	43	23.89		
Average	66	36.67		
Good	71	39.44	21.99	2.07
Total	180	100.00		

price fluctuations were the main problems. Since the FPOs were recently established the initiative related to marketing activities was very minimal. Hence there is scope for working on improving the marketing facilities. Similar results were observed in the studies of Amitha (2021) and Kandeegan et al. (2017).

Managerial performance :

Human resource development: Majority (40.00%) of the respondents perceived human resource development services provided by all FPOs were average followed by good (34.44%) and poor (25.56%). The reason might be that the training programs organized by facilitating agencies to develop the day-to-day activities of the cooperatives. so that they can update their knowledge and interact with

extension to get suggestions for problems they face in cultivation.

Managerial services: Majority (48.33%) of the respondents perceived managerial services provided by all FPOs were average followed by good (31.11%) and poor (20.56%). The probable reason might be farmer producer organisation having great group leadership, cohesiveness among the members which enabled them to improve their managerial skills. These results were in similar with findings of Venkattakumar et al (2019).

Well-being performance :

Farmer satisfaction: Majority (39.44%) of the respondents felt satisfied by the services provided by FPOs were good followed by and remaining respondents expressed that services provided by FPOs were average (36.67%) and poor (23.89%). This was due to the services provided by the FPO met the expectations of the farmers. As farmers got more benefits like in time seed supply, low price for inputs as compared to outside market, received trainings on value addition, supply of farm machineries at filed level etc. all these services provided by the FPO made them felt satisfied.

CONCLUSION

The present study revealed that services provided by FPO were average to poor. Even though performance was average in input services, network services, HRD services, managerial services, but Marketing services provided by the FPOs were very poor in selected FPOs. Therefore, FPOs need to be encouraged in marketing sector to make agriculture remunerative and profitable which will attract and retain rural youth in agriculture and thus help ensure food security and help realize food and nutrition security too. Government and promoting institutions should mainly focus on Marketing aspects rather than production.

CONFLICTS OF INTEREST

The authors have no conflicts of interest.

REFERENCES

- Amitha, C.D. (2020). A comparative study on performance of farmer producer organizations in Medak district of Telangana state. *M.sc (Agri.) thesis*, PJTSAU, Rajendranagar, Hyderabad.
- Amitha, C.D.; Savitha. B.; Sudha Rani, V; and Laxminarayana, P. (2021). Evaluation of performance of Farmer Producer Organizations (FPOs) in Medak District of Telangana. *Indian Res. J. Ext. Edu.*, **21** (4) : 24-29.

- FAO. 2006. Working paper on promoting farmer entrepreneurship through producer organisations I central and Eastern Europe.
- Kandeeban, M and Prabhavathi, Y. (2017). Marketing efficiency and market competitiveness of farmer produce companies (FPC's) – A case study of Telangana and Karnataka states. *The Journal of Research ANGRAU*. 45(2): 100-107.
- Karina, F.S and Penny, B. (2012). Inclusion of small and medium producers in the value chain: Assessment of five high-value agricultural inclusive business projects in Latin America. Centre for Globalization, Governance and Competitiveness and Multilateral Investment Fund. <https://www.researchgate.net/publication/260059460>
- Mondal, A. (2010). Farmer producer company (FPC): concept, practice and learning – a case from action for social advancement. *financing agriculture*, 42(7): 29-33.
- Narrood, C. A.; Roy, D.; Okello, J.J.; Avendano, B and Rich, K.M. (2007). The role of public private partnership and collective action in ensuring smallholder participation in high value fruit and vegetable supply chains. CAPRI Working Paper No. 70, October 2007. <https://www.researchgate.net/publication/5057206>.
- NCF (2006). National Commission on Farmers Serving Farmers and Saving Farming 2006: Year of agricultural renewal third report.
- NSSO (2011). NSS Report No. 554: Employment and Unemployment Situation in India, 2011-12. http://mospi.nic.in/sites/default/files/publication_reports/nss_report_554_31jan14.pdf.
- Patkar, S.; Asthana, S.; Arya, S.; Natawidjaja, R.; Widyastuti, C. and Shenoy, S. (2012). Small scale farmers' decisions in globalised markets: Changes in India, Indonesia and China, IIED/HIVOS/ Mainumby, London/The Hague/La Paz.
- Roy, D and Thorat, A. (2008). Success in high value horticultural export markets for the small farmers. The case of Mahagrapes in India. *World Development*. 36 (10):1874-90.
- Singh, S. (2012). New markets for small holders in India –exclusion, policy and mechanisms. *Economic and Political Weekly*. 47:95-110.
- Venkattakumar, R.; Venugopalam, S.; Narayanaswamy, B and Balakrishna, B. (2019). Performance of farmer producer organizations (FPOs and associated factors in Karnataka): producers' perspective. *Indian Res. J. Ext.Edu.*, 19 (2&3): 7-12.
- <https://www.nabard.org>
- <https://www.nabard.org/>

