# International Journal of Statistics and Applied Mathematics

ISSN: 2456-1452 Maths 2023; SP-8(4): 185-188 © 2023 Stats & Maths <u>https://www.mathsjournal.com</u> Received: 09-03-2023 Accepted: 12-04-2023

### Abhinav Singh

Ph.D., Scholar, Department of Extension Education, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

### **RK Doharey**

Professor, Department of Extension Education, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

### **Ritesh Singh**

Ph.D., Scholar, Department of Extension Education, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

#### Anurag Shankar Singh

Ph.D., Scholar, Department of Extension Education, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

### Amritanshu Singh

Ph.D., Scholar, Department of Extension Education, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

### Sudhanshu

Subject Matter Specialists, LBS Krishi Vigyan Kendra, Gonda, Uttar Pradesh. India

### Corresponding Author: Abhinav Singh

Ph.D., Scholar, Department of Extension Education, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

# Knowledge extent of farmers towards farmers producer organisation (FPO) in the Eastern region of Uttar Pradesh

# Abhinav Singh, RK Doharey, Ritesh Singh, Anurag Shankar Singh, Amritanshu Singh and Sudhanshu

### Abstract

The study was carried out in Gorakhpur and Basti District of eastern region of Uttar Pradesh state by conducting a personal interview with 400 FPO members those were selected through a proportionate random sampling technique from 10 FPO and 20 members were selected from each of the FPO. Out of 400 respondents, its 58.25 percent respondents have a high level of knowledge about services provided by FPOs followed by 29.50 percent medium and 12.25 percent have e low level of knowledge. The average mean of scores of knowledge observed to be 13.59 with a range of a minimum of 5 and a maximum of 25. Thus, the total knowledge index was calculated to be 58.25%. Out of 13 variables four variables like caste, education, material possession and risk orientation are highly significant and positively correlated with knowledge while, variables like age, annual income, marital status, type of family, social participation, scientific orientation and extension contact are significant and positively correlated with knowledge rest two variables land holding and size of the family is non-significant.

Keywords: Knowledge level, FPO members, Eastern Uttar Pradesh

### Introduction

Agricultural products of various types are produced in India and the marketing of all these products is a complex process. Farmers do not have market access and they are selling their produce to the intermediaries that operate in the market. On account of these intermediaries, their profit margin is reduced and their farming business becomes a non-viable one. If the increasing number of agricultural suicides among small and marginal farmers is any indication, these farmers are struggling to survive. While indebtedness is often cited as the immediate reason for distress deeper issues are related to vulnerability and risks in agricultural production. These issues include lower scale of operation, lack of timely availability of inputs, lack of information, poor communication linkages with the wider markets and consequent exploitation by intermediaries in procuring inputs and marketing fresh produce, access to and cost of credit and, in isolated cases, aggressive loan recovery practices.

Improvement in status of the farmer is possible only through diversification and commercialization of their agricultural activities. This is possible only through the collectivization of producers, especially small and marginal farmers, into producer organizations has emerged as one of the most effective pathways to address the many challenges of agriculture but most importantly, improved access to investments, technology, and inputs and markets. Department of Agriculture and Cooperation, Ministry of Agriculture, Govt. of India has identified farmer producer organization registered under the special provisions of the Companies Act, 1956 as the most appropriate institutional form around which to mobilize farmers and build their capacity to collectively leverage their production and marketing strength. An initiative that is designed to help farmers for successfully deal with a range of challenges that small producers are facing today. It is an initiative taken by the Department of Agriculture and Cooperation of the Ministry of Agriculture to mainstream the idea of 'promoting' and 'strengthening' member-based institutions of farmers. FPOs is a means to bring together the small and marginal farmers and other small producers to build their business enterprise that will be managed by professionals.

International Journal of Statistics and Applied Mathematics

FPOs can help farmers for the production of various agricultural produce as well as during the process of marketing the crops. Farmers' organizations offer small furthers to participate in the market more effectively and collectively, they are in a better position to reduce transaction costs of accessing inputs and outputs, obtaining the necessary market information, securing access to new technologies and tapping into high-value markets, allowing them to compete with larger farmers and agribusinesses.

In India, there are many legal forms of organizations through which primary producers can organize themselves. A producer organization (PO) is a generic name that represents different forms of community organizations such as large cooperatives, Primary Agricultural Credit Societies (PACS), Self-Help Groups (SHGs), Federation of SHGs, Common Interest Groups (CIGs), Farmers Clubs, Producer Companies, etc. However, a Producer Company is a special case of producer organization that is registered under Section IXA of the Companies Act, 1956 (Mondal, 2010)<sup>[7]</sup>.

## Methodology

The study was done in during 2022-2023 to know the knowledge level of FPO members. The study was conducted in the purposively selected eastern region of Uttar Pradesh. The primary data was collected from 400 FPO members following the personnel interview method. Two districts namely Gorakhpur and Basti were selected for the study. From each district 10 FPO and 20 members were selected randomly from each of the FPO. The primary data were collected personally through group discussion and a pre-tested interview schedule which was prepared based on objectives of the study. For determining knowledge level, a questionnaire was prepared. The responses were recorded on a two-point continuum as complete and no knowledge and were given a 2

and 1 score, respectively. For measuring the knowledge level of on the line of a knowledge test developed by Chaturvedi (2000)<sup>[8]</sup> was adopted with slight modification and used for the study. In the knowledge test, 27 questions were included in the selected for measuring the knowledge level of FPO members. The knowledge level possessed by individual respondents was measured by the computing knowledge index. The Based on gained by each respondent the respondents were categorised into low (up to 07), medium (08 to 18) and high (above 19). The knowledge index for each respondent was calculated by using the following formula.

Knowledge index	Total knowledge score obtained by FPO members	
Kilowledge index :	Maximum attainable score	X 100

The mean and standard deviation of all the FPO member's knowledge scores were computed for classifying the knowledge in different categories. Based on the mean knowledge score and standard deviation the FPO members were categorized under three knowledge level categories, namely low, medium and high knowledge levels as follows:

- 1. Low medium level = Score up to (Mean  $\pm$  S.D.)
- 2. Medium knowledge level = Score (Mean  $\pm$  S.D. to Mean  $\pm$  S.D.)
- 3. High knowledge level = Score above (Mean  $\pm$  S.D.)

## **Results and Discussion**

Knowledge plays an important role in the decision-making process at the individual level. Ascertaining the level of knowledge among FPO members was done to know their perception about the Farmers Producer Organization.

a v		Complete	Knowledge	No kn	owledge		<b>.</b> .
S. No.	Statement	F	%	F	%	Mean	Kank
1.	Do you know what is FPO	400	100	00	0.0	1.00	1
2.	Do you know when FPO was started	314	78.5	86	21.5	0.813	5
3.	Do you know where was FPO started	286	71.5	114	28.5	0.722	22
4.	Do you know at which level FPO operates	287	71.8	113	28.3	0.745	13
5.	Do you know how many farmers can join in FPO	294	73.5	106	26.5	0.734	16
6.	Do you know the registration website of FPO	293	73.3	107	26.8	0.705	24
7.	Do you know what is the need for FPO	279	69.8	121	30.3	0.774	6
8.	Do you know what are the essential feature of FPO	307	76.8	93	23.3	0.842	4
9.	Do you know who owns the FPO	334	83.5	66	16.5	0.724	21
10.	Do you know who can promote FPO	286	71.7	113	28.3	0.746	14
11.	Do you know who can provide support for the promotion of FPO	294	73.5	106	26.5	0.735	15
12.	Do you know what are the different legal forms of FPO	293	73.3	107	26.8	0.703	25
13.	Do you know which legal form is preferable for FPO	279	69.8	121	30.3	0.762	7
14.	Do you know the differences between FPO and Cooperative society	307	76.8	93	23.3	0.854	2
15.	Do you know the important activity of a FPO	334	83.5	66	16.5	0.725	20
16.	Do you know how would an FPO help the members	287	71.8	113	28.3	0.744	12
17.	Do you know who can become a member of the FPO	294	73.5	106	26.5	0.754	8
18.	Do you know who will manage the FPO	307	76.8	93	23.3	0.834	3
19.	Can an NGO promote FPO	334	83.5	66	16.5	0.712	23
20.	Can an FPO be registered under Acts governing non-profit institutions	284	71.4	114	28.6	0.741	10
21.	Is registration mandatory for an FPO	294	73.5	106	26.5	0.733	17
22.	What are other benefits for the members of an FPO	293	73.3	107	26.8	0.702	26
23.	Can a person become a member of more than one FPO	279	69.8	121	30.3	0.750	9
24.	Can an FPO engage professionals to manage its business	307	76.8	93	23.3	0.701	27
25.	Can an FPO procure produce from non-members	334	83.5	66	16.5	0.726	19
26.	Can an FPO sell the produce in the commodity exchanges	287	71.8	113	28.3	0.745	11
27.	Can an FPO export the produce of its members	294	73.5	106	26.5	0.732	18

 Table 1: Statement-wise knowledge level of farmers about the services provided by FPOs

Table 2: Distribution of the respondents based on the Overall knowledge level of farmer N=400

C No	Coto contra (Baser malue)	Respondents		
S. No.	Categories (Score value)	F	%	
1.	Low (up to 07)	49	12.25	
2.	Medium (08 to 18)	118	29.50	
3.	High (19 and above)	233	58.25	
	Total	400	100.00	

Mean- 13.59, S.D.- 5.62, Min.- 5, Max.- 25

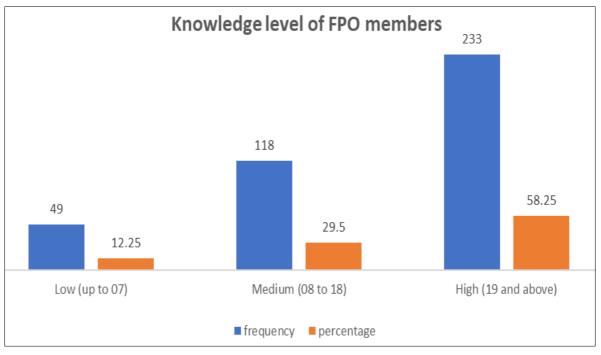


Fig 1: Knowledge-wise distribution of FPO members

Table 2 reveals that out of 400 respondents, 58.25 percent respondents have a high level of knowledge about services provided by FPOs followed by 29.50 percent medium and 12.25 percent have a low level of knowledge. The average mean of scores of knowledge observed to be 13.59 with a range of a minimum of 5 and a maximum of 25.

<b>Table 3:</b> Distribution of respondents according to their correlation
coefficient between different variables and Knowledge level of
towards FPOs.

S. No.	Variables	Correlation coefficient
1.	Age	0.167445516*
2.	Caste	0.078772057**
3.	Education	0.283995987**
4.	Annual income	0.049293741*
5.	Marital status	0.064600559*
6.	Landholding	0.042513796 <sup>NS</sup>
7.	Type of family	0.064600559*
8.	Size of family	0.014562458 <sup>NS</sup>
9.	Material possession	0.205505096**
10.	Social participation	0.069669068*
11.	Risk orientation	0.334413272**
12.	Scientific orientation	0.156992587*
13.	Extension contact	0.051353323*

\*Significant at 0.05% probability level

Out of 13 variables four variables like caste, education, material possession and risk orientation are highly significant and positively correlated with knowledge while, variables like age, annual income, marital status, type of family, social participation, scientific orientation and extension contact are significant and positively correlated with knowledge rest two variables land holding and size of family is non-significant.

# Conclusion

The study focuses on the knowledge level of farmers. It is concluded from the study that 58.25 percent of respondents have a high level of knowledge about services provided by FPOs followed by 29.50 percent medium and 12.25 percent have a low level of knowledge. The average mean of scores of knowledge observed to be 13.59 with a range of a minimum of 5 and a maximum of 25. Thus, the total knowledge index was calculated to be 58.25%. Out of 13 variables four variables like caste, education, material possession and risk orientation are highly significant and positively correlated with knowledge while, variables like age, annual income, marital status, type of family, social participation, scientific orientation and extension contact are significant and positively correlated with knowledge rest two variables land holding and size of family is non-significant.

# References

- 1. Awasthi HK, Singh PR, Sharma RN. Knowledge and attitude of dairy farmers towards dairy development program. Maha. Jour. Exten. Edu. 2000;21(0):290-292.
- 2. Bhattacharjee S. Experience of Producer Organisations: A case study of five Producer companies, Financing Agriculture. 2010;42(7):12-21.
- 3. Esham M, Usami K. Evaluating the performance of farmer companies in Sri Lanka: A case study of Ridi Bendi Ela farmer company, Journal of Agricultural Development Studies. 2007;16(2):27-36.

International Journal of Statistics and Applied Mathematics

- 4. Salokhe S. Farmers producer organization for effective linkage of small producers with the market, International Journal of Applied Research. 2016;2(10):142-146.
- Sokchea An, Culas RJ. Impact of contract farming with farmer organization on farmers' income: A case study of Reasmey Stung Sen Agricultural Development Cooperative in Cambodia, Australasian Agribusiness Review. 2015;23:1442-6951.
- 6. Tolno E, Kobayashi H, Esham M, Balde B. Economic analysis of the role of farmer organizations in enhancing smallholder Potato farmers' income in Middle Guinea, Journal of Agricultural Science. 2015;7(3):122-137.
- 7. Ghosh A, Ratasuk R, Mondal B, Mangalvedhe N, Thomas T. LTE-advanced: next-generation wireless broadband technology. IEEE wireless communications. 2010 Jun 24;17(3):10-22.
- 8. Chaturvedi UC, Agarwal R, Elbishbishi EA, Mustafa AS. Cytokine cascade in dengue hemorrhagic fever: implications for pathogenesis. FEMS Immunology & Medical Microbiology. 2000 Jul 1;28(3):183-8.