# Farmer Producer Organizations and Its' Success: A Critical Analysis in West Bengal

## Sudip Kumar Gorai[1] and Monika Wason[2]

1. Ph.D Student, 2. Pr. Scientist, Division of Agricultural Extension, ICAR-IARI, New Delhi

*Corresponding author e-mail : sudipad97@gmail.com*
*Received on February 10, 2022, Accepted on May 05, 2022 and Published Online on June 20, 2022*

## ABSTRACT

*Farmer Producer Organizations (FPOs) have shown to be a beacon of hope for the millions of farmers across India. The state of West Bengal was selected purposively for the study. Five high performing and five low performing FPOs, which were functioning for more than five years from the four districts namely Birbhum, Murshidabad, Purba Bardhaman and Nadia were considered for this study. Data were collected from a random sample of 120 farmer members through personnel interview method. For measuring the performance of FPOs, success index was developed taking economic efficiency and social achievements as indicators. t-value suggests that means score of the members of high and low performing FPOs varied significantly on economic and social indicators. Conflict was found to be the reliable predictors for the variance in success index in high performing FPOs. Attitude towards group, social interaction with people and assimilation were found to be significant contributor in obtaining less success index score in low performing FPOs.*

***Key words:*** *Farmer producer organizations (FPOs); Success; West Bengal.*

In India, small and marginal farmers face a number of problems which include imperfect markets of inputs or products leading to lesser value realizations, poorer access to institutional credit, technology etc *(Nikam et al., 2019)*. In the recent past, Government of India is giving thrust on group approach in agricultural extension to implement development schemes and facilitate transfer of agricultural technology among the farmers. Group extension approaches offer several advantages over individual approach like reaching large number of clients, improving the flow of information to farmers, better access to resources, time and cost saving etc. In this background, the Government of India amended the Companies Act, 1956 during 2002 that paved the way for incorporation of Farmer Producer Organisation (*Alagh, 2007; Singh, 2008; DAC, 2013 and Mukherjee et al., 2018a*). FPO is a legal entity formed by primary producers, viz., farmers, milk producers, fishermen, weavers, rural artisans, craftsmen. It can be a producer company, a cooperative society or any other legal form which provides for sharing of profits/benefits among the members (*Mukherjee et al., 2018b*).

The success of farmer producer organisations is critical for ensuring the success of small and marginal farmers in India (*Singh et al., 2018; Mukherjee et al., 2019; Nikam et al., 2019*). Some FPOs perform very well for a long period of time, while many others become inactive or defunct over a period of time (*Phansalkar and Paranjape, 2021*). In this context, present study was conducted to know about the the factors contributing to the success of FPOs.

## METHODOLOGY

The present study was conducted in the state of West Bengal. Random sampling procedure was used for sample selection in this study. Ten farmer producer organizations, which were functioning for more than five years from the four districts namely

Birbhum, Murshidabad, Purba Bardhaman and Nadia were selected for the study. Among these ten FPOs, five were high performing FPOs and five were low performing FPOs as graded by officials. Those FPOs which were engaged in agriculture related activity were considered for this study. From each farmer producer organizations 2 office bearers and 10 general members were selected randomly. Thus, the total sample size of the study was 120.

Success of the FPO can be operationally defined as the relative degree of accomplishments and achievements attained by FPO in terms of economic efficiency and social achievements over a period of time. The success factors for the organization were analysed through an index developed that contains a set of statements under the categories of economic indicators and social indicators. Respondents were asked to rate the statements in five point continuum with the score ranging from 5 to 1 on the basis of their agreement to the statements *viz.,* 'to a very high extent', 'to high extent', 'to some extent', 'to low extent', 'to a very low extent'. Success Index for any individual in a Farmer Producer Organizations was calculated by dividing the total obtained scores on all indicators of success of the group with the maximum possible scores on all indicators of success and multiplying it by 100.

$$SI = \frac{\text{Total obtained scores of FPO}}{\text{Max. possible scores of success}} \times 100$$

SI= Success index = *100

Simple correlation analysis and multiple regression analysis were done to identify the associated factors of success of Farmer Producer Organizations.

## RESULTS AND DISCUSSION

*Components of success index of FPOs:* For the study economic benefits accrued from FPO and social benefits received from FPO were selected as the indicators for analyzing the success of farmer producer organization. The parameters under economic indicators were: availability of subsidized inputs, support received from government and banks, use of improved technology, providing end to end solution to farmer's input services, improved production technologies, aggregation and marketing. These are related to provision of economic benefits to farmer members of FPO during crop cultivation period. In addition, some other economic indicators were: production per hectare increased, net return increased, bonus distributed to member-farmers,

**Table 1. Distribution of respondents of FPOs based on economic and social indicators of success index**

| Economic Indicators | High Performing FPOs (n=60) | Low Performing FPOs (n=60) |
|---|---|---|
| Mean | 31.58 | 23.68 |
| Standard Deviation | 2.14 | 4.80 |
| Range (Min - Max) | 27 - 35 | 14 - 35 |
| t value | 11.622** | |
| Social Indicators | High performing FPOs (n=60) | Low performing FPOs (n=60) |
| Mean | 42.81 | 34.11 |
| Standard Deviation | 2.06 | 5.40 |
| Range (Min - Max) | 38 - 47 | 25 - 48 |
| t value | 11.641** | |

direct marketing and better price realization distributed to member-farmers. These are the direct monetary benefits accrued to members. Farmers rating were recorded and total scores of economic indicators were computed for each respondent. The results are given in Table 1. Mean score of economic indicators of success of respondents of high performing FPOs was 31.58, but the standard deviation is 2.14 indicating consistency among the respondents on their economic indicators of success. This was also justified by the scores of respondents ranging from 27 to 35. In low performing FPOs, the mean score of economic indicators of success of respondents was 23.68, but the standard deviation being high at 4.80 indicated that variation was wider and the scores of economic indicators of success of respondents varied from 14 to 35. But the two samples of farmers were found to be significantly different on their economic indicators of success as evidenced from the t value being statistically significant at 0.01 level of probability.

On the other hand, the parameters under social indicators were: social equity attained (in terms of equitable distribution of opportunities), equitable access to organizational assets and resources, involvement of poor and marginal farmers in FPO, and involvement of all caste or religious groups of farming community. All these indicators focus on achieving equity and equality in society. Some other parameters were: ethical, fair and transparent dealings and transactions, social capital (mutual trust, faith, agreed-upon-norms) built, migration reduced in terms of number of wage days generated for local people, bargaining power of member-farmers increased, social prestige earned among member-farmers and quality consciousness enhanced among farmers. These indicators focused on

other social benefits accrued to members and society in general. Mean score of social indicators of success of respondents of high and low performing FPOs was 42.81 and 34.11 respectively. And the two samples of farmers were found to be significantly different on their social indicators of success as evidenced from the t value being statistically significant at 0.01 level of probability.

*Computation of Success Index:* From Table 2, it can be seen that mean score of success index of respondents of high performing FPOs was 80.85, but the standard deviation is 4.57 indicating consistency among the respondents on their scores of success index. This was also justified by the scores of respondents ranging from 73.33 to 90. The frequencies fell into a highly skewed distribution towards higher scores of success index, with about 28.3 per cent being high on success index, about 71.7 per cent in medium category of success index. This means that the farmers of high performing FPOs were found to be enjoying moderate -high scores of success index and thus were quite successful on their group performance in FPO. In low performing FPOs, the mean score of success index of respondents was 64.22, but the standard deviation being high at 10.23 indicated that variation was wider and the scores of success index of respondents varied from 50 to 90. Here the frequencies on success index fell into a highly skewed distribution with 46.7 per cent of respondents having low scores of success index, and 45 per cent being in medium of scores of success index. But the two samples of farmers were found to be significantly different on their success index scores as evidenced from the t value being statistically significant at 0.01 level of probability.

**Table 2. Distribution of respondents based on Success Index Score**

| Success Index | High Performing FPOs (n=60) | | Low Performing FPOs (n=60) | |
|---|---|---|---|---|
| Mean | 80.85 | | 64.22 | |
| SD | 4.57 | | 10.23 | |
| Range (Min - Max) | 73.33 - 90 | | 50 - 90 | |
| t value | 11.496** | | | |
| Category | No. | % | No. | % |
| Low (< 61.04) | 0 | 0 | 28 | 46.7 |
| Medium (61.04 – 84.02) | 43 | 71.7 | 27 | 45.0 |
| High (> 84.02) | 17 | 28.3 | 5 | 8.3 |
| Total | 60 | 100 | 60 | 100 |

**Significant at 0.01 level

*Identification of Associated Factors of Group Success:* The relationship of socio-personal, socio-economic, communication and socio-psychological characteristics with Success Index was established by simple correlation analysis and multiple regression analysis. The results of high performing FPOs were presented and later the results of low performing FPOs.

*High performing FPOs:* In order to identify the factors associated with Group Success Index of high performing FPOs, correlation analysis was done and the results are given in Table 3. The results say that variables such as education, land holding, annual income, attitude towards FPO, attitude towards group, cooperation, accommodation, extension personnel and cosmopolite channel contact, personal localite channel contact, had positive association with group success index of members in high performing FPOs and were significant at 0.01 per cent level of probability. Variable such as social interaction with people also had positive association with success index of members in high performing FPOs, however it was significant at 0.05 per cent level of probability. Competition and conflict were negatively associated with group success index of members in high performing FPOs. Whereas, variables such as age, family size, occupation, farming

**Table 3. Simple correlation analysis of Group Success Index in high performing FPOs**

| Characteristics | Correlation coefficient |
|---|---|
| Age | 0.059 |
| Education | 0.486** |
| Occupation | -0.102 |
| Family size | 0.032 |
| Farming experience | 0.110 |
| Land holding | 0.494** |
| Annual income | 0.409** |
| Attitude towards FPO | 0.556** |
| Attitude towards group | 0.616** |
| Social interactions with people | 0.578* |
| Cooperation | 0.426** |
| Competition | -0.496** |
| Conflict | -0.622** |
| Accommodation | 0.512** |
| Assimilation | 0.190 |
| Mass media exposure | -0.062 |
| Extension personnel and cosmopolite channel contact | 0.717** |
| Personal localite channel contact | 0.728** |

### Table 4. Multiple linear regression analysis of members with Group Success Index in high performing FPOs

| Independent Variables | Unstandardized Coefficients | | Standardized Coefficients | t | P value |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) | 59.928 | 10.595 | | 5.656 | .000 |
| Age | -.033 | .031 | -.104 | -1.037 | .306 |
| Education | .048 | .140 | .041 | .342 | .734 |
| Occupation | 1.476 | 1.069 | .168 | 1.380 | .175 |
| Family Size | -.646 | .323 | -.199 | -1.998 | .052 |
| Farming Experience | .040 | .052 | .071 | .759 | .452 |
| Land Holding | .210 | .104 | .220 | 2.021 | .050 |
| Annual Income | 1.061E-7 | .000 | .001 | .006 | .995 |
| Attitude Towards FPO | .019 | .033 | .084 | .565 | .575 |
| Attitude Towards Group | .015 | .061 | .041 | .237 | .814 |
| Social Interaction with People | .073 | .197 | .054 | .369 | .714 |
| Cooperation | .015 | .079 | .022 | .187 | .853 |
| Competition | .145 | .126 | .237 | 1.154 | .255 |
| Conflict | -.245 | .080 | -.422 | 3.051** | .004 |
| Accommodation | .147 | .149 | .174 | .991 | .327 |
| Assimilation | -.113 | .102 | -.124 | -1.105 | .276 |
| Mass Media Exposure | -.124 | .105 | -.108 | -1.178 | .246 |
| Extension Personnel and Cosmopolite Channel Contact | .451 | .278 | .373 | 1.622 | .113 |
| Personal Localite Channel contact | .043 | .490 | .023 | .087 | .931 |
| $R^2$=0.721 | F= 5.883, at 18, 41 degrees of freedom | | | | |

**Significant at 0.01 level

experience, assimilation and mass media exposure had no significant association with group success index of members in high performing FPOs.

*Multiple linear regression analysis:* The method of multiple linear regression was used for predicting the relative contribution of independent variables to the dependent variable, success index. For this a regression equation was fitted keeping success index scores as dependent variable with eighteen independent variables. The results of multiple regression analysis for the high performing FPOs are presented in Table 4. The results showed that about 72.1 per cent of variance in dependent variable group success index of respondents of high performing FPOs could be explained by the variables included in the regression equation as can be seen from $R^2$ being 0.721, which is significant at 0.01 level of probability. F test value at 18, 41 degrees of freedom was statistically significant at 0.01 level of probability. Among all the independent variables, only one variable was found to be significant, i.e., conflict, which was negative and significant at 0.01 level of probability. Indeed, it is one variable most significant in adversely affecting group atmosphere in the FPO, leading to feelings of low success especially among respondents of high performing FPOs. The results were in conformity with *Patkar et. al. (2012), Ragasa and Golan (2012) and Venkattakumar et al. (2019).*

Conflict is a social process operating in the FPO that causes rift among the sub groups of FPO. Conflict occurs when some members attempted to pursue their own personal agenda against the common interests of all members. This may happen due to allegations that the whole produce of one or two farmers were not procured, whereas the fact remains that after proper grading process, only a part of the produce was found fit for taking. Such activities or feelings of mistrust may cause low feelings of success among members. Hence conflict, as a disjunctive social process was found to be

| **Table 5. Simple correlation analysis of Group Success of members in low performing FPOs** | |
|---|---|
| Characteristics | Correlation coefficient |
| Age | 0.008 |
| Education | 0.193 |
| Occupation | 0.010 |
| Family size | -0.254 |
| Farming experience | -0.014 |
| Land holding | 0.293* |
| Annual income | 0.454** |
| Attitude towards FPO | 0.418** |
| Attitude towards group | 0.752** |
| Social interactions with people | 0.540** |
| Cooperation | 0.342** |
| Competition | -0.312* |
| Conflict | -0.310* |
| Accommodation | 0.144 |
| Assimilation | 0.445** |
| Mass media exposure | 0.319* |
| Extension personnel and cosmopolite channel contact | 0.623** |
| Personal localite contact | 0.277* |

**Table 6. Multiple linear regression analysis of low performing FPOs**

| Independent Variables | Unstandardized Coefficients | | Standardized Coefficients | t value | P value |
|---|---|---|---|---|---|
| | B | SE | Beta | | |
| (Constant) | 25.897 | 12.251 | | 2.114 | .041 |
| Age | .003 | .133 | .002 | .025 | .980 |
| Education | .300 | .337 | .092 | .891 | .378 |
| Occupation | -.062 | 1.977 | -.003 | -.031 | .975 |
| Family Size | -.709 | .674 | -.089 | -1.051 | .300 |
| Farming experience | -.157 | .142 | -.114 | -1.106 | .275 |
| Land holding | -.183 | .240 | -.070 | -.762 | .450 |
| Income | 8.095E-5 | .000 | .149 | 1.263 | .214 |
| Attitude towards FPO | .066 | .045 | .130 | 1.461 | .152 |
| Attitude towards group | .387 | .107 | .377 | 3.615** | .001 |
| Social interaction | .954 | .368 | .250 | 2.593* | .013 |
| Cooperation | .094 | .105 | .079 | .888 | .380 |
| Competition | .086 | .183 | .041 | .470 | .641 |
| Conflict | -.238 | .157 | -.136 | -1.516 | .137 |
| Accommodation | -.123 | .113 | -.099 | -1.091 | .281 |
| Assimilation | .322 | .125 | .274 | 2.585* | .013 |
| Mass Media Exposure | .360 | .216 | .147 | 1.672 | .102 |
| Extension personnel and cosmopolite channel contact | .112 | .222 | .063 | .506 | .616 |
| Personal localite channel | -.350 | .504 | -.065 | -.695 | .491 |

$R^2$=0.795, F= 8.817 at 18, 41 df, **significant at 0.01 level, *significant at 0.05 level

a reliable predictor for the variance in group success of the high performing FPOs.

*Low performing FPOs:* In order to identify the factors associated with Success Index of low performing FPOs, correlation analysis was done and the results are given in Table 5. It was found from the results in Table 5, that annual income, attitude towards FPO, attitude towards group, social interaction with people, cooperation, assimilation, and extension personnel and cosmopolite channel contact had positive association with group success index of members in low performing FPOs and were significant at 0.01 level of probability. Variables such as land holding, mass media exposure and personal localite channel contact also had positive association with group success index of members in low performing FPOs, however they are significant at 0.05 level of probability. Competition and conflict were negatively associated with group success index of members in low performing FPOs and were significant

at 0.05 level of probability. Competition and conflict being disjunctive forces have found to reduce group success within the low performing FPOs. Whereas, variables such as age, education, occupation, family size, farming experience, accommodation had no significant association with group success index of members in low performing FPOs.

*Multiple linear regression analysis:* For this a regression equation was fitted keeping group success index scores as dependent variable with eighteen independent variables. The results of multiple regression analysis for the low performing FPOs are presented in Table 6. The results showed that about 79.5 per cent of variance in dependent variable of group success index of respondents of low performing FPOs could be explained by the variables included in the regression equation as can be seen from $R^2$ being 0.795, as F test vale at 18, 41 degrees of freedom was statistically significant at 0.01 level of probability. Among all the independent variables,

only three variables were found to be significant, i.e., attitude towards group, social interaction with people and assimilation, which were significant at 0.01 level of probability. Indeed, these three variables were most significant in creating conducive group atmosphere leading to feelings of success in the FPO, especially among respondents of low performing FPOs. Thus, Attitude of members towards group, social interactions with people and assimilation would become reliable predictors for the variance of group success index of respondents of low performing FPOs. This finding was supported by *Ragasa and Golan (2012)* and *Amitha et al. (2021).*

## CONCLUSION

Group processes like attitude of members towards group, social interactions with people, competition, assimilation etc. play important role in successful performance of farmer producer organizations. Awareness of producers about the farmer producer organizations and its benefits is very much essential for joining them in FPO. Government should take more initiative to encourage more people to join FPO by advertising or any other means. Members of the resource institute or officials of the NABARD and SFAC have to convince the producers in the village. Constant interaction with members provides critical information on whatever is happening in the FPO and help to create a favourable positive attitude towards group and paves way for assimilating any persons moving away from the mainstream thoughts and activities and of the FPO. Attitude of the group members assumes great importance as a positive attitude of some members would provide for more success and a negative attitude of some members would pull down the success of the group.

## CONFLICTS OF INTEREST

The authors have no conflicts of interest.

## REFERENCES

Alagh, Y. (2007). On producer companies, paper presented at the workshop organized by PRADAN on Linking Small Producers to Markets through Producer Companies on December 20, 2007 at New Delhi.

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 State. *Indian Res. J. Ext. Edu.*, **21**(3): 24-29.

DAC. (2013). Policy & process guidelines for farmer producer organisations. *Retrieved from* https://www.mofpi.gov.in/sites/default/files/fpo_policy_process_guidelines_1_april_201 3.pdf

Mukherjee, A.; Singh, P.; Ray, M.; Satyapriya and Burman, R.R. (2018b). Enhancing farmers' income through farmers' producers companies in India: Status and roadmap. *Indian J. Agril. Sci.*, **88** (8): 1151–61.

Mukherjee, A.; Singh, P.; Satyapriya and Burman, R.R. (2018a). Road map and strategies for effective viable profit-making farmer producer companies. ICAR News, January–March: 16–18.

Mukherjee, A.; Singh, P.; Satyapriya; Kumari, S.; and Burman, R.R. (2019). Facilitating and hindering factors affecting growth and functioning of farmers producer companies in India. *Indian J. Ext. Edu.*, **55**(4): 14-20.

Nikam, V.; Singh, P.K.; Ashok; Arathy and Kumar, Shiv. (2019). Farmer producer organisations: Innovative institutions for upliftment of small farmers. *Indian J. Agril. Sci.,* **89** (9): 1383-92.

Patkar, S.; Asthana, S.; Arya, S.; Natawidjaja, R.; Widyastuti. C. and Shenoy, S. (2012). Small scale farmers' decisions in globalized markets: Changes in India, Indonesia and China. International Institute for Environment and Development. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.593.4392&rep=rep1&t ype=pdf

Phansalkar, S. and Paranjape, A. (2021). Making farmer producer organisations achieve viability: A practical guide. National Association of Farmer Producer Organizations (NAFPO).

Ragasa, C. and Golan, J. (2012). The role of rural producer organizations for agricultural service provision in fragile states. International Food Policy Research Institute. https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/127327/filename/12 7536.pdf

Singh, A.; Singh, K.; Singh, M.; Singh, A. K. and Bagri, R. (2018). The socio-economic impact of women farmer's interest group of lac growers. *Indian J. Ext. Edu.*, **54** (4): 106-111.

Singh S. (2008) Producer companies as new generation cooperatives. Economic and Political Weekly pp. 22–24.

Venkattakumar, R.; Mysore, S.; Venugopalam, R.; Narayanaswamy, B.; Balakrishna, B.; Atheequlla, G.; Paripurna, A. and Reddy, T.M. (2019). Performance of farmer producer organizations (FPOs) and associated factors in Karnataka: Producers' perspectives. *Indian Res. J. Ext. Edu*, **19** (2&3): 7-12.

● ● ● ● ●