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Factors Contributing to the Stability of the Farmer Producer Organisations: A Study in West Bengal

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ABSTRACT

The study was conducted to assess the stability of Farmer Producer Organizations (FPOs) and the factors contributing to the stability of FPOs in West Bengal during 2020. Using random sampling procedure, data were collected from 120 farmer members from ten FPOs from four districts of the state namely *Birbhum*, *Murshidabad*, *Purba Bardhaman* and *Nadia* through personal interview method. For measuring the stability of FPOs, stability index was developed taking mutual trust, role clarity of the members, level of involvement of members in group works, satisfaction of the members, sense of attachment and conviction and sense of ownership as the indicators. The significant difference between the mean scores of stability index of high and low performing FPOs were observed with respect to the dimensions like satisfaction of the members, mutual trust, role clarity and sense of attachment and conviction. Attitude of members towards their FPO and cooperation were found to be significant contributor in developing better group stability within a high performing FPO. Attitude towards FPO, assimilation and competition were found to be the reliable predictors for the variance in group stability in low performing FPOs.

INTRODUCTION

In India, small and marginal farmers own 86.21 per cent of the country's total land holdings (Agriculture census, 2015-16). These small farmers lack the requisite volume (both inputs and outputs) to profit from economies of scale. Furthermore, there is a long chain of intermediaries in agricultural marketing that frequently work in a non-transparent manner, resulting in a situation where the producer receives only a small portion of the value that the ultimate customer pays (Nikam et al., 2019). However, the transactional costs of the farm produce especially the fruits like mango can be reduced through farmers' federations (Partiban et al., 2015). In this background, Farmer Producer Organizations (FPOs) can be an important platform for transforming smallholder farming, increasing agricultural productivity and farmers' income (Mukherjee et al., 2018; Singh et al., 2018). In the Union Budget 2019-20, Government has approved the formation of 10,000 new Farmer Producer Organizations (FPOs) over the next five years to ensure economies of scale for farmers, for which a dedicated and comprehensive central sector scheme titled "Formation and Promotion of Farmer Producer Organizations (FPOs)" was proposed for development and sustainability of FPOs. For this purpose, the government has set aside a total budgetary allocation of Rs. 4496.00 crore for five years (2019-20 to 2023-24). Department of Agriculture and Farmers Welfare will assign clusters or states to Implementing Agencies, which will then construct Cluster Based Business Organizations in the States. Implementing agencies will create and promote FPOs through Cluster Based Business Organizations (CBBOs) engaged at the State or Cluster level (Press Information Bureau, February 09, 2021).

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Social groups often show a high degree of dynamism (Lewin, 1936; Cartwright and Zander, 1968). Some groups thrive, while many others die over time. For a group to endure, members must remain together for a long period (Forsyth, 1999). A group's cohesiveness or integration is what gives it stability (Toseland & Rivas, 2009). These two are those forces that act on members of a group to make them remain in the group (Wageman, 2001). Inspite of the increasing emphasis on FPO at the central and state level, it was found that formation and growth of FPOs across the country has not been uniform (Manaswi et al., 2018). There are not many examples of FPOs and cooperatives being viable (Phansalkar & Paranjape, 2021). This is the current fact that has been worrying for FPO promoters who had put in to kick start these FPOs. Somehow the initial enthusiasm and energy got dried midstream making FPOs limp slowly, sink in dying. Although success has been tasted by many FPOs, it is the stability of these FPOs that the development professionals, thinkers and planners are currently concerned. This study has attempted to explore the factors contributing to the stability of FPOs to move further upwards for realising the long-cherished dreams of garnering major share of consumer rupee by small and marginal farmers.

METHODOLOGY

The state of West Bengal was selected purposively for the study. Ten farmer producer organizations, which were Farmer Producer Company (FPCs) under the section 581(C) of Indian Companies Act, 1956 as amended in 2013, were selected for the study. These FPCs were functioning for more than five years from the four districts namely Birbhum, Murshidabad, Purba Bardhaman and Nadia. Among these ten FPOs, five were high performing FPOs and five were low performing FPOs as graded by officials. 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. A detailed interview schedule containing appropriate questions for obtaining the required data was prepared. The data were collected through personal interview method.

Stability of the group or FPO was operationally defined as the relative degree of consistent growth of FPOs in terms of financial and human resources over a period of time. For the study mutual trust, role clarity of the members, level of involvement of members in group works, satisfaction of the members, sense of attachment and conviction and sense of ownership were selected as the indicators for analyzing the stability of farmer producer organization. Stability Index for any individual in a Farmer Producer Organizations was calculated by dividing the total obtained scores on all indicators of stability of the group with the maximum possible scores on all indicators of stability and multiplying it by 100.

$$\text{Stability index} = \frac{\text{Total obtained scores on all indicators of stability of FPO}}{\text{Maximum possible scores on all indicators of stability}} \times 100$$

Appropriate variables for the present study were identified based on the objective of the study and review of literature. The following independent variables i.e. Socio-personal variables (Age, Educational status, Family size, Farming experience), Socio-economic variables (Occupational status, Total land size, Annual income), Socio-psychological Variables (Attitude towards FPO, Attitude towards group), Social process variables (Social interactions with people, Cooperation, Competition, Conflict, Accommodation, Assimilation) and Communication Variables (Extension personnel and cosmopolite channels contact, Mass media exposure, Personal localite channels contact) were selected. Simple correlation analysis was used to know the relationship between the independent variables and dependent variable i.e. stability of the farmer producer organisation. Multiple Linear Regression Analysis was done to find out the relative contribution of each of the significant independent variables as well as their combined effect on the dependent variable.

RESULTS AND DISCUSSION

Components of stability index and its computation

It can be seen from Table 1 that, among the six components of group stability, all the farmers of both samples appeared to be similar on two components of stability: level of involvement of members in group works and on sense of ownership of their FPOs. This can be explained that all farmers routinely participate and get involved in group works and experience moderate levels of sense of ownership among themselves. But, the farmer respondents of high performing FPOs have shown greater degrees of mutual trust, role clarity, sense of attachment and conviction and highly satisfied with the functioning of their FPOs, thereby providing positive forces of group stability to their FPOs, in comparison to the farmer respondents of low performing FPOs. The farmers of low performing FPOs suffered from lack of mutual trust, lack of role clarity, lack of sense of attachment and conviction in the functioning of their FPOs, and hence were not so much satisfied with their FPOs, which were affecting their group stability.

Further from Table 2, it can be seen that, the two samples of farmers were significantly different on their *group stability index* as evidenced from the t value being statistically significant at 0.01 level of probability. While farmers of high performing FPOs enjoyed very good *group stability* in their group, the farmers of low

Table 1. Distribution of respondents of FPOs based on different dimensions of group stability

	High Performing FPOs (n=60)	Low Performing FPOs (n=60)
Mutual trust		
Mean	10.06	7.18
t value	7.447**	
Role clarity		
Mean	19.63	13.68
t value	7.871**	
Involvement of members in group works		
Mean	12.61	12.25
t value	0.828^{NS}	
Satisfaction of the members		
Mean	18.93	17.83
t value	3.156**	
Sense of attachment and conviction		
Mean	20.50	15.00
t value	5.745**	
Sense of ownership		
Mean	17.86	17.83
t value	0.107^{NS}	

Table 2. Distribution of respondents of FPOs based on Group Stability Index Score

Stability Index Score	High Performing FPOs (n=60)		Low Performing FPOs (n=60)	
Mean	77.28		64.98	
Standard Deviation	5.74		9.50	
Range (Min - Max)	68.22 – 89.15		50.39 – 87.60	
t value	8.576**			
Frequency distribution				
Category	Frequency	Percentage	Frequency	Percentage
Low (< 61.17)	0	0.0	26	43.3
Medium (61.17 – 81.10)	45	75.0	28	46.7
High (> 81.10)	15	25.0	6	10.0
Total	60	100	60	100

performing FPOs felt not being stable in their group. So, group stability has indeed, played a significant role in the efficient functioning of the FPOs.

Identification of associated factors of group stability

The relationship of socio-personal, socio-economic, socio-psychological, social process and communication characteristics with Group Stability Index was established by simple correlation analysis and multiple regression analysis. First, the results of high performing FPOs were presented and later the results of low performing FPOs.

The results in Table 3 present the relationship between group stability index and the socio-personal, socio-economic, socio-psychological, social process and communication characteristics of members in high and low performing FPOs. It says that variables such as education, annual income, attitude towards FPO, attitude towards group, cooperation, accommodation, assimilation, extension personnel and cosmopolite channel contact, personal localite channel contact had positive association with group stability index of members in high performing FPOs and is significant at 0.01 per cent level of probability. Competition and conflict were negatively associated with group stability index of members in high performing FPOs and are significant at 0.01 per cent level of probability. Variables such as occupation and social interaction with people also had positive association with group dynamics effectiveness index of members in high performing FPOs, however they are significant at 0.05 per cent level of probability. Whereas, variables such as age, family size, farming experience, land holding and mass media exposure had no significant association with group stability index of members in high performing FPOs.

Table 3. Simple correlation analysis of Group Stability Index with characteristics of members in high and low performing FPOs

S.No.	Characteristics	Correlation coefficient (High performing FPOs)	Correlation coefficient (Low performing FPOs)
1.	Age	0.085	-0.068
2.	Education	0.346**	0.184
3.	Occupation	0.081*	-0.075
4.	Family size	0.037	-0.296*
5.	Farming experience	-0.142	-0.011
6.	Land holding	0.087	0.302*
7.	Annual income	0.465**	0.358**
8.	Attitude towards FPO	0.775**	0.483**
9.	Attitude towards group	0.683**	0.653**
10.	Social interactions with people	0.324*	0.382**
11.	Cooperation	0.645**	0.349**
12.	Competition	- 0.505**	-0.472**
13.	Conflict	- 0.451**	-0.266*
14.	Accommodation	0.445**	0.089
15.	Assimilation	0.357**	0.354**
16.	Mass media exposure	0.024	0.259*
17.	Extension personnel and cosmopolite channel contact	0.387**	0.524**
18.	Personal localite channel contact	0.416**	0.303*

Further it was also found from the Table 3 that annual income, attitude towards FPO, attitude towards group and social interaction with people, cooperation, assimilation extension personnel and cosmopolite channel contact had positive association with group stability index of members in low performing FPOs and are 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 stability index of members in low performing FPOs, however they are significant at 0.05 level of probability. The results were in conformity with Trebbin & Hassler (2012), Venkattakumar et al., (2019) & Amitha et al., (2021). Variable such as family size, competition and conflict had negative association with group stability index of members in low performing FPOs. Variables such as age, education, occupation, farming experience and accommodation were not at associated with group stability index among respondents of low 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, group stability. For this a regression equation was fitted keeping group stability index scores as dependent variable with eighteen independent variables. The results of multiple regression analysis for high performing FPOs are presented in Table 4. The results showed that about 73.9 per cent of variance in dependent variable group dynamics effectiveness 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 0.739, 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 two variables were found to be significant, i.e., attitude towards FPO and cooperation which were significant at 0.01 level of probability. Indeed, these two variables were the most significant in running and managing the FPO, especially among respondents of high performing FPOs. In these high performing FPOs, farmers have seen and personally experienced success and various other benefits from FPO's activities. Since most of them were marginal and small farmers, they had accrued great benefits from the way the FPO is being run on democratic lines. This feeling of success had imbibed in them a positive attitude towards FPO, which indeed, played a pivotal role

Table 4. Multiple linear regression analysis with Group Stability Index in high performing FPOs

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t	P value
	B	Std. Error	Beta		
(Constant)	52.824	18.443		2.864	.007
Age	-.058	.055	-.103	-1.061	.295
Education	.084	.245	.040	.345	.732
Occupation	-.303	1.861	-.019	-.163	.872
Family Size	-.263	.563	-.045	-.467	.643
Farming Experience	-.047	.091	-.046	-.514	.610
Land Holding	-.067	.181	-.039	-.370	.713
Annual Income	3.375E-5	.000	.116	1.118	.270
Attitude Towards FPO	.256	.058	.636	4.429**	.000
Attitude Towards Group	.118	.107	.184	1.103	.276
Social Interaction with People	-.042	.343	-.017	-.123	.903
Cooperation	.371	.137	.309	2.711**	.010
competition	.154	.219	.140	.704	.485
Conflict	.106	.140	.101	.758	.452
Accommodation	.160	.259	.105	.618	.540
Assimilation	.087	.178	.053	.490	.627
Mass Media Exposure	.104	.183	.050	.566	.574
Extension Personnel and Cosmopolite Channel Contact	-.452	.484	-.208	-.936	.355
Personal Localite Channel Contact	-.017	.853	-.005	-.020	.984

R^2=0.739; F= 6.456, df 18, 41; **significant at 0.01 level

Table 5. Multiple linear regression analysis with Group Stability Index in low performing FPOs

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t	P value
	B	Std. Error	Beta		
(Constant)	81.003	19.743		4.103	.000
Age	-.203	.214	-.114	-.949	.348
Education	.093	.542	.021	.171	.865
Occupation	-3.562	3.186	-.134	-1.118	.270
Family Size	-1.022	1.087	-.096	-.940	.353
Farming Experience	.000	.228	.000	-.002	.999
Land Holding	-.156	.387	-.045	-.403	.689
Annual Income	.000	.000	.195	1.361	.181
Attitude Towards FPO	.215	.073	.318	2.945**	.005
Attitude Towards Group	.234	.173	.171	1.354	.183
Social Interaction with People	-.085	.593	-.017	-.144	.886
Cooperation	.302	.170	.192	1.778	.083
Competition	-.817	.296	-.290	-2.763**	.009
Conflict	-.007	.253	-.003	-.028	.978
Accommodation	-.151	.182	-.091	-.828	.412
Assimilation	.413	.201	.264	2.057*	.046
Mass Media Exposure	.336	.347	.103	.968	.339
Extension Personnel and Cosmopolite Channel Contact	.021	.357	.009	.058	.954
Personal Localite Channel	.312	.812	.043	.385	.702

R^2=0.700; F= 5.305, at 18, 41 degrees of freedom; *significant at 0.05 level of probability; **significant at 0.01 level of probability

in persuading all members for strengthening and stabilizing the FPO for longer endurance. This positive attitude had also persuaded all members to cooperate and collaborate in efficient functioning of FPO. In fact, organising farmers for aggregating the produce from marginal and small farmers is in itself an activity of seeking cooperation from all members. When all members had themselves seen the benefits of coming together and working for common interest of all, the spirit of cooperation had already set in. Thus, cooperation had come out a reliable predictor for group stability of FPOs. Hence, attitude towards FPO and cooperation were found to be reliable predictors for the variance in group stability among high performing FPOs. The findings of the study were in agreement with Patkar et al., (2012) and Ragasa & Golan (2012). The results of multiple regression analysis for the low performing FPOs are presented in Table 5. The results showed that about 70 per cent of variance in dependent variable of group stability 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 0.700, as F test value at 18, 41 degrees of freedom was statistically significant at 0.01 level of probability.

Only three variables were found to be significant, i.e., attitude towards FPO, and competition, which were significant at 0.01 level

of probability and assimilation which was significant at 0.05 level of probability. Indeed, attitude towards FPO and assimilation were the two variables most significant in proving positive forces in running and managing the FPO, especially among respondents of low performing FPOs. Members' activities of assimilation, i.e., reducing conflicts and encouraging cooperation among members was found to enhance and strengthen the group stability of their FPOs. But another social process variable, competition was found to be negatively contributing to the group stability among farmers of low performing FPOs. Members' activities of competing with one another has been providing negative forces adversely impacting the endurance and long life of the low performing FPOs.

Thus, attitude of members towards their FPO, assimilation and competition would thus, become reliable predictors for the variance of group stability of their FPOs. The results were in conformity with Ragasa & Golan (2012) & Amitha et al., (2021). Badatya et al., (2018) in their study in Maharashtra reported that the awareness level of the members about activities of the FPO was found to be extremely low, which in turn affecting their stability. Singh et al., (2018) stated that lack of trust among member farmers acts as serious impediment to the stability of FPOs in Punjab, whereas Kumar et al., (2021) reported that effective market linkage and suitable business plan for the company is important to make the FPOs sustainable and viable.

CONCLUSION

The important factors of group stability *i.e.*, attitude towards FPO, cooperation, assimilation should be given due importance. All these factors had in fact generated better and positive forces of group stability within the FPOs and so these key aspects have to be deliberately educated and promoted among members of FPO. Awareness of the members' duties and responsibilities, *i.e.,* what they need to do and what is expected from them was found to be very important to maintain the stability of FPOs. Moreover, there should be high sense of attachment and conviction among the members about their FPO. For this purpose, the activities of FPOs should be practical, need-based and economical. After the group formation, undertaking some group activities like field visit, group discussion and group training, *etc.*, and developing sense of higher cooperation and assimilation can enhance group stability. They should not compete each other, but cooperate and collaborate in group works and in production activities as per market demand. Also potentially damaging conflicts should be resolved. Social processes occurring in FPOs need to be properly monitored and guided through cooperation, assimilation and accommodation activities so that adverse social processes such as competition and conflicts could not harm the stability of FPOs.

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