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Relationship between the profile of FIGs members and their cohesiveness of ATMA project

¹CB Damor, ²DM Rathod, ³GD Hadiya and ³MB Patel

¹Assistant Research Scientist, Agricultural Research Station, AAU, Derol, Gujarat, India

²Assistant Research Scientist, Main Maize Research Station, AAU, Godhra, Gujarat, India

³Associate Research Scientist, Agricultural Research Station, AAU, Derol, Gujarat, India

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Corresponding Author: CB Damor

Abstract

The ATMA at district level would be increasingly responsible for all the technology dissemination activities at the district level. The present study was conducted in Panchmahals district of Middle Gujarat. Multistage random sampling technique was followed for selection of District, Talukas, villages and FIGs members of ATMA. Panchmahals district comprises 7 talukas out of these 4 talukas viz. Godhra, Halol, Kalol and Sahera selected purposively. 4 villages from each talukas selected randomly, 1 active FIGs of ATMA from each selected village and from each FIGs group 15 members was selected. Total 240 members selected and interviewed. More than half (54.58 percent) of the FIGs members were found in the middle age group, less than three-fifth (57.92 percent) of the FIGs members had secondary to higher secondary level of education, more than half (55.41 percent) of FIGs members had a medium to high level of farming experience, slightly more than three-fifth (60.83 percent) of FIGs members had medium to high exposure visit, more than half (57.92 percent) of FIGs members had membership in one organization to two organization, more than half (56.25 percent) of the FIGs members had a medium to high level of training received, slightly less than two-third (65.41 percent) of the FIGs member had medium to high cohesiveness, Education, experience in FIGs, Social participation, Extension contact and mass media exposure had positive and highly significant relationship with cohesiveness, experience in farming, exposure visit, training received and annual income had positive and significant relationship with cohesiveness whereas age and size of land holding had positive and non-significant relationship with cohesiveness.

Keywords: ATMA, cohesiveness, FIGs member

Introduction

The ATMA is an autonomous organization registered under the Society's Registration Act of 1860 with considerable operational flexibility. It is a registered society of stakeholders involved in agricultural activities for sustainable agricultural development in the district. It is the focal point for integrating research and extension activities and decentralized day-to-day management of the Public Agricultural Technology System (ATS). The ATMA at district level would be increasingly responsible for all the technology dissemination activities at the district level. It would have linkage with all the line departments, research organizations, non-governmental organizations and agencies associated with agricultural development in the district. The farmer is the center of focus for development in the model and through an organized effort; farmers have to say in the planning and implementation of the development process. Representation is provided to farmers at the village level through Farmers Interest Groups (FIGs), at the block level as members of the Farmers Advisory Committee (FAC) and at the district level as members of the ATMA Governing Board (AGB). The concept envisages a paradigm shift from a top-down to a bottom-up approach in the planning and implementation of extension programs. Keeping all these

views, the research study "Relationship between the profile of FIGs members and their cohesiveness of ATMA project" was taken.

Objectives

1. To study the profile of farmer's interest groups members (FIGs)
2. To study the relationship between profile of FIGs members and their cohesiveness of ATMA project

Methodology

The present study was conducted in the Panchmahals district of Gujarat state. Multistage random sampling technique was followed for the selection of District, Talukas, villages and FIGs members of ATMA. Panchmahals district comprises 7 talukas out of these 4 talukas viz. Godhra, Halol, Kalol and Sahara were selected purposively. Four villages from each taluka were selected randomly, 1 active FIGs of ATMA from each selected village and from each FIGs group 15 members were selected. Hence, a total of 240 members were selected and interviewed. The data was collected through the personal interview method. The data was analyzed and interpreted with Frequency, Percentage and Correlation Coefficient (r).

Results and Discussion

Table 1: Distribution of FIGs members according to their age

(n=240)			
Sr. No	Age	Frequency	Percentage
1.	Young Age (up to 35 years)	67	27.92
2.	Middle Age (36 to 50 years)	131	54.58
3.	Old age (above 50 years)	42	17.50
Total		240	100.00

Table 1 indicated that more than half (54.58 percent) of the FIGs members were found in the middle age group followed by 27.92 percent in young age group. The rest 17.50 percent of the FIGs members belonged to old age group.

Table 2: Distribution of FIGs members according to their level of education

(n=240)			
Sr. No	Education	Frequency	Percentage
1.	Illiterate	38	15.83
2.	Primary Education (up to 7 ^{std})	42	17.50
3.	Secondary Education (8 to 10 ^{std})	78	32.50
4.	Higher Secondary (11 to 12 ^{std})	61	25.42
5.	Graduate or post graduate	21	08.75
Total		240	100.00

Table 2 revealed that more than half (57.92 percent) of the FIGs members had secondary to higher secondary level of education, followed by 17.50 and 15.83 percent of them who had primary level of education and illiterate, respectively. Only 08.75 percent of FIGs members were found to be college level education.

Table 5: Distribution of the FIGs members according to their number of exposure visit

(n=240)			
Sr. No.	Number of exposure visit	Frequency	Percent
1	Very low (Up to two visit)	20	08.33
2	Low (Four visits)	45	18.76
3	Medium (Six visits)	83	34.58
4	High (Eight visits)	63	26.25
5	Very high (More than eight visits)	29	12.08
Total		240	100.00

Table 5 showed that slightly more than three-fifth (60.83 percent) of FIGs members had medium to high exposure visit followed by 18.76, 12.08 and 08.33 percent of FIGs

Table 3: Distribution of the FIGs members according to their experience in Farming,

(n=240)			
Sr. No.	Experience in Farming	Frequency	Percent
1.	Very low (Up to 5 years)	25	10.42
2.	Low (6 to 10 years)	40	16.67
3.	Medium (11 to 15 years)	79	32.91
4.	High (16 to 20 years)	54	22.50
5.	Very high (21 and more)	42	17.50
Total		240	100.00

Table 3 indicated that more than half (55.41 percent) of FIGs members had a medium to high level of farming experience, followed by (17.50 percent) had high, (16.67 percent) had a low and few (10.42 percent) FIGs members had a very low experience in farming.

Table 4: Distribution of the FIGs members according to their experience in FIGs

(n=240)			
Sr. No.	Experience in FIGs	Frequency	Percent
1.	Very low (Up to 2 years)	30	12.50
2.	Low (3 to 4 years)	60	25.00
3.	Medium (5 to 6 years)	75	31.25
4.	High (7 to 8 years)	45	18.75
5.	Very high (9 and above)	30	12.50
Total		240	100.00

Table 4 indicated that more than half (56.25 percent) of FIGs members had medium to low level of experience in FIG, followed by 18.75, 12.50 and 12.50 percent of FIGs members had high and very high and very low experience in FIG, respectively.

Table 6: Distribution of the FIGs members according to their social participation other than FIG

(n=240)			
Sr. No.	Social Participation other than FIG	Frequency	Percent
1.	No membership	69	28.75
2.	Membership in one organization	101	42.09
3.	Membership in two organizations	38	15.83
4.	Membership in more than two organizations	27	11.25
5.	Membership along with position holding	05	02.08
Total		240	100.00

Table 6 indicated that a more than half (57.92 percent) of FIGs members had membership in one organization to two organization, followed by no membership in any organizations (28.75 percent), membership in more than two

members had low, very high and very low exposure visit, respectively.

organization (11.25 percent), few of them (02.08 percent) had a membership along with position in any of the organization.

Table 7: Distribution of FIGs members according to their extension contact

(n=240)

Sr. No	Extension contact	Frequency	Percentage
1.	Very low (up to 11 score)	35	14.58
2.	Low (11 to 14 score)	51	21.25
3.	Medium (15 to 17 score)	68	28.33
4.	High (18 to 20 score)	65	27.08
5.	Very high (21 to 24 score)	21	08.76
Total		240	100.00

Table 7 indicated that nearly more than half (55.41 percent) of FIGs members had medium to high level of extension contact, followed by 21.25 14.58 and 08.76 percent of FIGs members had low, very low and very high level of extension contact, respectively.

Table 8: Distribution of FIGs members according to their mass media exposure

(n=240)

Sr. No	Mass media exposure	Frequency	Percentage
1.	Very low (up to 11 score)	19	07.92
2.	Low (11 to 14 score)	44	18.33
3.	Medium (15 to 17 score)	81	33.75
4.	High (18 to 20 score)	73	30.42
5.	Very high (21 to 24 score)	23	09.58
Total		240	100.00

Table 8 indicated that more than three-fifth (64.17 percent) of the FIGs members had medium to high level of mass media exposure, followed by 18.33, 09.58 and 07.92 percent of them had low, very high and very low level of mass media exposure, respectively.

Table 9: Distribution of the FIGs members according to training received by them

(n=240)

Sr. No.	Level of training received	Frequency	Percent
1	Very low (up to 3 training)	30	12.50
2	Low (4 to 6 training)	43	17.92
3	Medium (7 to 9 training)	72	30.00
4	High (10 to 12 training)	63	26.25
5	Very high (13 to above training)	32	13.33
Total		240	100.00

Table 9 observed that more than half (56.25 percent) of the FIGs members had a medium to high level of training received, followed by 17.92, 13.33 and 12.50 percent of them had low, very high and very low level of training received, respectively.

Table 10: Distribution of the FIGs members according to their annual income,

(n=240)

Sr. No.	Annual Income	Frequency	Percent
1	Very low (Up to ₹ 50,000)	25	10.42
2	Low (₹ 50,001 to 1,00,000)	79	32.92
3	Medium (₹ 1,00,001 to 1,50,000)	76	31.67
4	High (₹ 1,50,001 to 2,00,000)	34	14.16
5	Very high (₹ 2,00,001 and above)	26	10.83
Total		240	100.00

Table 10 showed that more than three-fifth (64.59 percent) of the FIGs members having low to medium annual income, followed by 14.16, 10.83 and 10.42 percent of them had high, very high and very low annual income, respectively.

Table 11: Distribution of FIGs members according to their land holding

(n=240)

Sr.no.	Land holding	Frequency	Percentage
1.	Marginal (Up to 1.00 ha)	92	38.33
2.	Small (1.1 to 2.0 ha)	61	25.42
3.	Medium (2.1 to 4.0 ha)	54	22.50
4.	Large (Above 4.0 ha)	33	13.75
Total		240	100.00

Table 11 indicated that more than three-fifth (63.75 percent) of the FIGs members possessed marginal to small size of land holding, whereas 22.50 and 13.75 percent of them had medium and large size of land holding, respectively.

Table 12: Distribution of the FIGs members according to their cohesiveness

(n=240)

Sr. No.	Cohesiveness	Frequency	Percent
1	Very low (10 to 18 score)	11	04.58
2	Low (19 to 26 score)	46	19.17
3	Medium (27 to 34 score)	80	33.33
4	High (35 to 42 score)	77	32.08
5	Very high (43 to 50 score)	26	10.84
Total		240	100.00

Table 12 indicated that slightly less than two-third (65.41 percent) of the FIG member had medium to high cohesiveness, followed by 19.17, 10.84 of them had low and very high cohesiveness, whereas only (04.58 percent) had very low cohesiveness.

Table 13: Relationship between the profile of FIGs members with their cohesiveness

(n=240)

Sr. No.	Name of the variables	Correlation with cohesiveness
A	Independent variables	
Personal variables		
1	Age	0.085 NS
2	Education	0.352**
3	Experience in farming	0.134*
4	Experience in FIGs	0.372**
5	Number of exposure visit	0.142*
Socio- Communicational variables		
6	Social participation	0.361**
7	Extension contact	0.382**
8	Mass media exposure	0.282**
9	Training received	0.115*
Economic variables		
10	Size of land holding	0.107 NS
11	Annual income	0.138*

*Significance at 5 percent level of probability

NS:- Non significant

** Significance at percent level of probability

Age and cohesiveness

Table 13 indicated that there was a non-significant ($r = 0.085$) relationship between age of FIGs members and

cohesiveness of FIGs members about the significance of ATMA.

It reflects that age did not influence the cohesiveness of FIGs members about the significance of ATMA.

Education and cohesiveness

Table 13 indicated that there existed a positive highly significant correlation ($r = 0.352^{**}$) between education of the FIGs members and their cohesiveness about the significance of ATMA. Member of the FIG and getting cohesiveness is depending on interest of FIGs members irrespective of their education.

The probable reason might be that education broadens an individual's way of thinking and understanding, which helps them make rational decisions, prevents exploitation, and provides direction to their thought process, leading to greater involvement in FIG activities and a higher degree of adoption of ATMA initiatives. However, the cohesiveness of FIG members regarding the significance of ATMA depends more on their interest in FIG activities rather than their educational background.

Experience in farming and cohesiveness

Table 13 revealed that there existed a positive significant correlation ($r = 0.134^{*}$) between FIGs members experience in farming and their cohesiveness about the significance of ATMA.

Experienced individuals accumulate greater knowledge and skills, enabling them to excel in various types of work. Their extensive experience fosters rational thinking and decisiveness, leading to enhanced performance. Consequently, it can be inferred that FIG members with more years of experience better understand the nature of FIG activities and can coordinate more effectively within the group, thereby increasing their adoption of FIG activities. This understanding highlights the correlation between FIG members' farming experience and their unity regarding the significance of ATMA, demonstrating that as farming experience grows, FIG members recognize the benefits of practical learning in the field, thereby enhancing their appreciation for ATMA's importance.

Experience in FIG and cohesiveness

Table 13 clearly indicated that there existed a positive highly significant correlation ($r = 0.372^{**}$) between member farmer's experience in FIG and their cohesiveness about the significance of ATMA.

Highly experienced individuals acquire extensive knowledge and skills, demonstrating excellence across various types of work through their rational thinking and decisive decision-making abilities. Consequently, it can be inferred that the more years of experience FIG members have, the better they understand the nature of FIG activities and can coordinate effectively within the group, potentially increasing their adoption of FIG activities. However, it is indicated that FIG members developed a sense of unity regarding the significance of ATMA regardless of their experience within the FIG. This suggests that while experience may enhance overall understanding and coordination within the FIG, cohesion around the importance of ATMA initiatives was achieved irrespective of individual members' varying levels of experience within

the group.

Number of exposure visit and cohesiveness

Table 13 observed that a number of exposure visit by the FIGs members had a positive and significant correlation ($r = 0.142^{*}$) with their cohesiveness about the significance of ATMA. It means a number of exposure visit affect the cohesiveness of FIGs members about the significance of ATMA. This result might be due to increase in exposure visit lead to more exposure of FIGs members with other group members, ATM, and BTM which may have been resulted into more discussion about ATMA, its activities and all other matters related to ATMA.

Social participation and cohesiveness

Table 13 indicated that social participation by the FIGs members had a positive and highly significant correlation ($r = 0.361^{**}$) with their cohesiveness about the significance of ATMA.

Therefore, it can be concluded that the social participation of FIG member farmers significantly influenced the extent to which FIG activities were adopted. Social participation facilitated interactions among members, allowing for the exchange of ideas and information. This interaction likely fostered positive changes in attitudes, leading to the adoption of FIG activities. FIG members participate actively in various organizations where they share ideas, knowledge, and experiences gained through their FIG participation. Additionally, membership in a milk cooperative society provided them with regular opportunities for social interaction. These social networks and exchanges contribute to the collective understanding and support necessary for effective FIG engagement and adoption of agricultural initiatives.

Extension contact and cohesiveness

Table 13 indicated that extension contact had a positive and significant correlation ($r = 0.382^{*}$) with the cohesiveness of FIGs members about the significance of ATMA. This suggests that regular contact with extension services positively influenced the unity among FIG members regarding the importance of ATMA. The frequent interactions FIG members had with extension agencies allowed them to gain more information, improve their skills, and enhance their knowledge.

The likely reason for this is that engaging with extension personnel and agencies creates a favorable environment for farmers to actively seek information and develop their capabilities. These interactions are crucial for farmers who see the value in modernizing their practices, encouraging them to regularly reach out to extension workers for practical farm advice, problem-solving, or to explore new agricultural initiatives.

Mass media exposure and cohesiveness

Table 13 that there existed positive and highly significant ($r = 0.282^{**}$) relationship between mass media exposure and cohesiveness of FIGs members about the significance of ATMA.

It suggests that exposure to mass media significantly influenced the extent to which FIG members adopted FIG activities. FIG farmers with greater exposure to mass media

had increased opportunities to access updates on FIG-related information, which likely contributed to their adoption of FIG activities. This could explain the observed findings.

The higher level of mass media exposure would have enabled FIG members to stay informed about the latest developments in crops, soil management, machinery, and plant protection measures, thereby enhancing their knowledge and potentially leading to improved agricultural production. This connection underscores the relationship between mass media exposure and the cohesion of FIG members regarding the significance of ATMA, highlighting its role in facilitating agricultural knowledge dissemination and adoption of practices within FIGs.

Training received and cohesiveness

Table 13 indicated that training received by the FIGs members had a positive and significant correlation ($r=0.115^*$) with their cohesiveness about the significance of ATMA.

This indicates that the level of training received significantly influenced the extent to which FIG members adopted FIG activities. A probable reason for this could be that the training provided to member farmers was beneficial across various activities, including input supply and guidance from research scientists. Additionally, trained farmers often have strong connections with NGOs, other progressive farmers, and access to farm literature, which likely contributed to the observed results. During these training sessions, FIG members are equipped with knowledge and skills related to ATMA and its significance, which further enhances their understanding and adoption of FIG activities.

Size of land holding and cohesiveness

Table 13 indicated that land holding had a positive and non-significant correlation ($r = 0.107$) with their cohesiveness about the significance of ATMA.

This result might be due to that non-discriminatory procedure followed in ATMA to select the FIGs members of FIG, irrespective of their size of land holding.

Annual income and cohesiveness

Table 13 indicated that annual income had a positive and significant correlation ($r = 0.138^*$) with their cohesiveness about the significance of ATMA.

It can be observed that the annual income of member farmers had an impact on the adoption of FIG activities, with higher incomes correlating with increased adoption rates. This trend suggests that as income levels rise, so too does the likelihood of embracing FIG initiatives. The probable reason for this could be that higher income enables farmers to invest more in acquiring knowledge and developing positive attitudes towards FIG activities, thereby facilitating greater adoption. However, the significant relationship between FIG members' participation and their cohesiveness is primarily driven by their interest and willingness to explore new ideas, rather than their annual income. This indicates that regardless of income level, FIG members' engagement and unity in understanding the importance of FIG activities stem more from their intrinsic motivation and curiosity to learn and innovate within their agricultural practices.

Conclusion

More than half of the FIGs members were found in the middle age group, secondary to higher secondary level of education, medium to high level of farming experience, medium to low level of experience in FIG, membership in one organization to two organizations, medium to high level of extension contact, medium to high level of training received, more than three-fifth of FIGs members had medium to high exposure visit, medium to high level of mass media exposure, low to medium annual income, possessed marginal to small size of land holding and medium to high cohesiveness. Education, experience in FIGs, Social participation, Extension contact and mass media exposure had positive and highly significant relationships with cohesiveness, experience in farming, exposure visits, training received and annual income had positive and significant relationships with cohesiveness whereas age and size of land holding had positive and non-significant relationship with cohesiveness.

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