

Original Research Article
**Socio- psychological constructs and perceived
economic variables impacting the Farmer
Producer Organization members in Kerala: A
Quantitative Analysis**

ABSTRACT

The present study focused on assessing the socio-psychological constructs and perceived economic variables affecting the functioning of the FPOs. An ex-post facto research design was used in the study. The study was conducted in Kerala. Districts from Northern, Central, and Southern Kerala having the maximum number of FPOs were selected for the study. Wayanad from Northern Kerala, Idukki from Central Kerala, and Trivandrum from Southern Kerala were purposively selected for the study. A purposive sampling technique was used for the selection of the FPOs. Two functioning FPOs were purposively selected from the three districts based on discussion with National Bank for Agriculture and Rural Development (NABARD), Small Farmers Agribusiness Consortium (SFAC), and Krishi Vigyan Kendra (KVK). From each selected FPO, 20 farmer members were randomly selected. A total of 40 farmers were surveyed from each district. Thus, from six FPOs in three districts, 120 farmer members were selected. A random sampling technique was used for the selection of the farmer members from each FPOs. The study rigorously examined parameters such as age, education, annual income, scientific orientation, training attended, credit orientation, social participation, group cohesiveness, and creativity levels among FPO members. It was observed that FPOs comprised middle-aged farmers who completed their education up to the high school level. A substantial proportion of FPO members fell within the medium income category, scientific orientation, and have attended relatively fewer training sessions. Additionally, the research unveiled the fact that the majority of the FPO members belonged to a medium level of credit orientation, social participation, group cohesiveness, and creativity among FPO members. These factors play a critical role in shaping the dynamics and effectiveness of FPOs.

Keywords: Farmer Producer Organization, Profile characteristics, Socio-psychological construct, Economic variable, Kerala

1. INTRODUCTION

Agriculture plays a major role in achieving livelihood security as farm sources for livelihood are generally dominant in rural areas. Livelihoods can be made up of a range of on-farm and off-farm activities

which together provide a variety of procurement strategies for food and cash [8]. However, out of the total farming population in India, small (land holding between 1.00 ha and 2.00 ha) and marginal farmers (land holding less than 1.00 ha) constitute 86.00 per cent with an average land-holding size of 1.16ha [23,26]. A livelihood is sustainable, when it can cope with or recover from stress and shocks, maintain its capability and assets, and provide sustainable livelihood opportunities for the next generation [4]. Unfortunately, not all households are equal in their ability to cope with stress and repeated shocks. Small and marginal farmers' livelihoods are endangered due to the liberalization, privatization, and globalization policies, but many chances are made for private capital in the agriculture sector. To increase the income of farmers at the farm level many initiatives are being taken up by the governments. The most important among these include the collectivization of producers, especially small and marginal farmers, into Producer Organizations (PO). A Producer Organization (PO) can be a producer company, a cooperative society, or any other legal form which provides for sharing profits among members. The concept of producer companies was introduced in 2002 by incorporating a new part IXA, into the Indian Companies Act, of 1956 [16]. Producer Organization (PO) is any legal entity formed by primary producers like farmers, milk producers, fishermen, weavers, rural artisans, and craftsmen [33].

FPO is an organization of the farmers, for the farmers, and by the farmers, which helps to bring both the small and marginal farmers to build their business enterprise which will be managed by professionals. FPO offers small farmers to participate in the market more effectively and helps to enhance agricultural production, productivity, and profitability [28]. It has emerged as one of the most effective pathways to address many challenges of agriculture, specifically improved access to investments, technology, inputs, and markets [6]. The main aim of FPO is to ensure better income for the producers through an organization of their own. Small producers do not have the volume individually (both inputs and produce) to get the benefit of economies of scale. Besides, in agricultural marketing, there is a long chain of intermediaries who very often work non-transparently leading to the situation where the producer receives only a small part of the value that the ultimate consumer pays. Through aggregation, the primary producers can avail the benefit of economies of scale. They will also have better bargaining power vis-à-vis the bulk buyers of produce and bulk suppliers of inputs [16]. It is well recognized that the commercialization of products of small-scale, resource-poor farmers is closely linked to higher productivity, greater specialization, and higher income [3]. NABARD and SFAC are the major institutions that provide support to FPO. Small Farmers' Agribusiness Consortium (SFAC) is a designated agency of the Department of Agriculture and Cooperation (DAC) to act as a Single window for technical support, training needs, research, and knowledge management and to create linkages to markets [6].

Various studies have been conducted regarding the personal and socio-psychological constructs of farmers and Self Help Groups. But very few studies have been conducted on this aspect of Farmer Producer Organizations (FPOs). Presently, around 5000 FPOs (including Farmer Producer Companies) are functioning in the country, which were formed under various initiatives of the Govt. of India like National Bank for Agriculture and Rural Development (NABARD), Small Farmers Agribusiness Consortium (SFAC) and other organizations over the last 8-10 years. Out of these, around 3200 FPOs are registered as Producer Companies [16]. Presently around 100 FPOs are functioning in Kerala, which were formed under the initiative of NABARD. In terms of districts, Idukki district boasts the greatest count of FPOs, totaling 13,

whereas Kollam district exhibits the lowest count of FPOs, amounting to only 3. But the question of the hour arises towards sustainability of the existing FPOs, for which intensive research is required in the valuation of the profile of the FPO members of Kerala provides a foundation towards the scope of the study.

The present study focused on assessing the socio-psychological constructs and perceived economic variables affecting the functioning of the FPOs. The scientific examination of the profile of FPO members will contribute significantly to the existing knowledge base. The findings might provide a solid foundation for policymakers, practitioners, and stakeholders to design evidence-based programs, policies, and interventions tailored to the specific needs and characteristics of FPO members. By acknowledging the diverse profiles within FPOs, targeted support can be provided to enhance entrepreneurship, income generation, social integration, and the adoption of sustainable agricultural practices. This, in turn, might foster the overall development and growth of the agricultural sector.

It focused on the member farmers, Board of Director members and CEOs of the FPO. The difficulty faced during the study was that the Board of Director members and CEOs give only positive information whereas the members were not having much information about the FPO. Efforts were taken to reduce such influence of Board of Director members and CEOs of FPOs on the research outcome as well as to overcome the inherent limitations of the study due to time, resources, and sample size.

2. METHODOLOGY

2.1 Research Design

An ex-post facto research design was used in the study. This design was used because the study aims at measuring the phenomenon which has already occurred and is continuing. Ex-post facto research design is used when the researcher has no control over the independent variable and manipulation is not possible because variables are inherently constant [14].

2.2 Locale of the study

The study was conducted in Kerala. Districts from Northern, Central, and Southern Kerala having the maximum number of FPOs were selected for the study. Wayanad from Northern Kerala, Idukki from Central Kerala and Trivandrum from Southern Kerala were purposively selected for the study. A purposive sampling technique was used for the selection of the FPOs.

2.3 Selection of the FPOs

Two functioning FPOs were purposively selected from the three districts based on discussion with National Bank for Agriculture and Rural Development (NABARD), Small Farmers Agribusiness Consortium (SFAC) and Krishi Vigyan Kendra (KVK). Wayanad Agriculture Spices Producer Company and Bana Agro & Allied Producer Company were selected from the Wayanad district. Neyyasseri Agro. Producer Company and Thodupuzha Farmer Agro Producer Company were selected from Idukki district. Sangamaitri Farmer Producer Organization and Sabarnati Agro. & Livestock Farmer Producer Company were selected from Trivandrum district

2.4 Selection of the respondent

From each selected FPO, 20 farmer members were randomly selected. A total of 40 farmers were surveyed from each district. Thus, from six FPOs in three districts, 120 farmer members were selected. These 120 farmer members were considered as the respondents for the study. Purposive sampling technique was used for the selection of the FPOs whereas random sampling technique was used for the selection of the farmer members from each FPOs.

2.5 Selection of the variables

A list of 35 variables associated with socio-economic constructs and perceived economic variables of the respondents was selected based on the review of literature and informal discussion with subject experts. The list of variables along with their operational definition was sent to 30 judges for rating. The rating was done on a five- point continuum ranging from 'most relevant', 'more relevant', 'relevant', 'less relevant' and 'least relevant' with scores 5, 4, 3, 2 and 1 respectively. The variables were selected based on mean relevancy score. The score obtained for each variable from 30 judges were added and divided by total number of judges. The average of the total score obtained for all the variables was calculated. The variables that scored more than the mean relevancy score were selected for the study. Thus, the socio-psychological constructs and perceived economic variables selected through judges rating were age, education, annual income, scientific orientation, number of trainings attended, social participation, group cohesion, credit orientation and institutional intervention.

2.6 Statistical tools and techniques used

Well-structured interview schedule was used for data collection which was prepared after discussion with experts in order to meet the objective of the study. Master table was prepared in excel sheet using the data collected and basic statistical tools like frequency, percentage, mean and standard deviation were used for data analysis. The final categories were made by using mean and standard deviation.

3. RESULTS AND DISCUSSION

3.1 Age

Age was operationally defined as the number of calendar years completed by the respondent at the time of enquiry. Age was recorded by directly asking the respondents. It is clear from Table (1) that more than half of the respondents (52.50%) belonged to middle age group. 40.83 per cent of the respondents belonged to old age group followed by 6.67 per cent of the respondents belonged to young age group. This result is an indication that old aged farmers have a sentimental approach towards farming and might not be much interested to get engaged as agripreneurs whereas young farmers are more interested in commercialized agriculture. The result also indicates that younger generation is **more interested in** white-collar jobs than agriculture. Lack of interest of the youth to choose agriculture as their source of livelihood might also be the reason. These results are on par with the findings reported by Pranali [24], Raj [25], Parate [21], Chavai [5], Trupti [32], Pannu [20], Pandey [19], Jakkawad [11], Tekale [31], Neeta [18] and Patel [22].

3.2 Education

Education was operationally defined as the highest academic qualification owned by the respondent through formal and informal education. Education was recorded by directly asking the respondents. It is clear from Table (1) that nearly one third (35%) of the respondents had education up to high school, 25 per cent of the respondents had education up to middle school, 19.17 per cent of respondents had education up to college level, 16.67 per cent had education up to primary school followed by those with professional degree (4.17%). None of the respondents were illiterate which clearly reflects high literacy rate in Kerala. Findings about education clearly shows that most of the members pursued their basic education which may help them in a better understanding about the working of FPOs and the benefits they could receive by being a member. Another fact that might have been the reason for the finding is that during the post-independence era, various campaigns have been conducted by the government towards literacy of the rural people with quality institutional arrangement. Another interesting fact that is derived from Table 1 is that 4.17 per cent of the respondents who had professional degree are the Board of Director members (BODs) and Chief Executive Officers (CEOs) of the FPOs. The overall education qualification of the respondents is found to be good. This result is in agreement with Ajith[1], Babu[2], Srinithi[30].

3.3 Annual income

Annual income was operationally defined as the income earned by the respondents from farming and other allied enterprises and was expressed in rupees. It was recorded by directly asking the respondents. It is clear from the Table (1) that 42.50 per cent of the respondents had medium level of income (Rs.60,000 – Rs 2,00,000), 39.17 per cent of the respondents had low level of income (below Rs.60,000), 18.33 per cent of the respondents had high level of income (above Rs.2,00,000).

According to the result, 42.50% of the FPO members had a medium level of income, ranging between Rs.60,000 to Rs.2,00,000. This indicated that a significant proportion of respondents fell within this

income range, suggesting a moderate level of financial earnings. This might be due to the fact that most of the respondents were involved in farming alone with majority of them adopting mono cropping. It also shows that the farmer members belonged to middle class in the economic status of the society. These individuals might have generated a sufficient income to meet their basic needs and invest in their agricultural activities but may have faced limitations in terms of higher financial resources. Furthermore, the statement revealed that 39.17% of the FPO members had a low level of income, below Rs.60,000. This percentage represented a notable portion of FPO members who experienced relatively lower financial earnings. They may have faced financial constraints in meeting their basic needs, investing in agricultural inputs, or expanding their farming operations due to limited income resources. On the other hand, 18.33% of the FPO members had a high level of income, exceeding Rs.2,00,000. This suggested that a smaller but significant percentage of FPO members enjoyed a higher level of financial earnings. These individuals likely had more financial resources at their disposal, enabling them to invest in their agricultural enterprises, expand their operations or address their financial needs more comfortably.

The distribution of income levels among the FPO members could be influenced by various factors such as farm productivity, market conditions, government support, access to credit, and the overall economic context. Factors like efficient farm management, adoption of innovative techniques, market diversification, and access to supportive financial mechanisms could contribute to higher income levels. Conversely, factors like limited access to resources, inadequate market opportunities, challenges in obtaining credit, and external economic factors might contribute to lower income levels. In summary, the reason for the given statement lay in the variation in income levels among the surveyed FPO members, which could be attributed to a combination of individual farming practices, market conditions, financial resources, and external economic factors. The findings are in line with Ajith [1], Babu [2], Golwad [9] and Kamble[13].

3.4 Scientific orientation

Scientific orientation was operationally defined as the degree to which a farmer was focused to the practice of scientific methods in decision making. It is clear from the Table (1) that majority of the respondents (60.83%) had medium level of scientific orientation followed by respondents with high (24.17%) and low (15%) scientific orientation respectively. According to the result obtained, the majority of FPO members (60.83%) exhibited a medium level of scientific orientation. This indicated that a significant proportion of respondents had shown a balanced propensity for incorporating scientific knowledge and techniques into their farming activities. They likely possessed a moderate understanding of scientific principles and practices, enabling them to make informed decisions regarding farm management, crop selection, pest control, and other related aspects. Furthermore, 24.17% of the FPO members demonstrated a high level of scientific orientation. This subset of respondents displayed a greater inclination towards leveraging scientific knowledge and techniques in their farming practices. They were more likely to actively seek and implement advanced scientific methodologies, innovative technologies, and research-based recommendations to optimize productivity, minimize environmental impact, and enhance overall efficiency in their agricultural operations. On the other hand, 15% of the FPO members exhibited a low level of scientific orientation. This indicated a smaller percentage of FPO members who had limited exposure to or interest in

scientific principles and practices. They may have relied **more on conventional farming** methods and were less open to incorporating scientific advancements into their agricultural activities.

The variation in scientific orientation among FPO members can be attributed to several factors, including educational background, access to scientific resources, exposure to training programs, and the dissemination of scientific information within the FPO. Individuals with higher educational qualifications or those who have received training on scientific farming methods were more likely to exhibit a higher level of scientific orientation. Additionally, the availability of agricultural extension services, research institutions, and peer networks that promote scientific knowledge exchange could also contribute to the development of higher scientific orientation among FPO members. This result is in agreement with Dechamma [7], Gopala [10] and Shivani [27].

3.5 Training attended

The result Table (1) indicates that 42.50 per cent of respondents had attended a maximum of two trainings followed by 40.83 per cent of respondents, who attended three or more training and 16.67% of the respondents attended only one training. This suggests that a significant portion of respondents had participated in a relatively small number of training sessions. It is likely that these individuals either had limited access to training opportunities or chose to attend fewer sessions due to various factors such as time constraints or personal circumstances. On the other hand, 40.83% of the respondents had attended three or more training sessions. This indicates that a substantial portion of the surveyed FPO members had actively engaged in multiple training opportunities. These individuals demonstrated a higher level of commitment and a greater desire to acquire knowledge and skills related to scientific farming methods and business management. Furthermore, the result mentions that 16.67% of the respondents attended only one training. This smaller percentage suggests that a minority of FPO members participated in a single training session. These individuals might have had limited exposure to training opportunities or might have chosen to attend only one session based on their specific needs or interests.

Overall, the distribution of training attendance among the respondents reveals varying levels of engagement and participation within the FPO member group. Factors such as availability of training, individual priorities, and personal circumstances likely influenced the number of training sessions attended by each respondent. The result is in agreement with Naidu [17].

3.6 Credit orientation

Credit orientation was operationally defined as the orientation of the FPO members to take advantage of the financial institution for credit, which help to improve their economic status. It is clear from the above Table (1) that 50.83 per cent of respondents had medium level of credit orientation followed by high and low credit orientation for 27.50 per cent and 21.67 per cent of respondents respectively. 50.83 per cent of the FPO members had a medium level of credit orientation suggested that a significant portion of respondents demonstrated a moderate inclination towards utilizing credit as a financial resource. These

individuals might have likely recognized the value of credit in supporting their farming activities and business operations but might have maintained a cautious approach in accessing credit. Furthermore, the statement indicates that 27.50% of the respondents had a high credit orientation. This percentage represented a substantial number of FPO members who displayed a strong inclination towards utilizing credit as a primary financial tool. These individuals were probably more inclined to utilize credit opportunities in order to allocate funds towards their farming activities, expand their agricultural operations, or fulfill financial requirements within their agricultural enterprises. On the other hand, 21.67% of the respondents had a low credit orientation. This smaller percentage suggested that a minority of FPO members exhibited a more reserved approach towards utilizing credit. These individuals might have been more cautious or hesitant in accessing credit, either due to personal preferences, risk aversion, or limited awareness about the benefits of credit in supporting agricultural activities.

The distribution of credit orientation among the FPO members indicated varying attitudes and approaches towards credit utilization within the surveyed group. Factors such as individual financial goals, risk perceptions, past experiences, and awareness about credit opportunities might have influenced the level of credit orientation displayed by each respondent. Overall, the result shows that the membership in FPOs increases the extend of availability of credit to the farmers. The result is in agreement with Babu [2], Sreeram [29].

3.7 Social participation

Social participation was operationally defined as the extent and nature of participation of the respondent in various activities of social organization. It is clear from the result presented in Table 1 that, majority of the respondents (62.53%) belonged to medium category of social participation, followed by 14.36 per cent of the respondents in high social participation category. 13.26 per cent and 02.50 per cent of the respondents belonged to low level of social participation and never participated category of social participation respectively.

According to the results obtained, 62.53% of the FPO members belonged to the medium category of social participation. This suggests that a significant majority of respondents demonstrated a moderate level of involvement in social activities within the context of their FPO membership. These individuals might have been likely to be engaged in social events, meetings, and collaborative initiatives to a reasonable extent, contributing to the collective participation and cohesion of the FPO. Furthermore, the results indicates that 14.36% of the respondents belonged to the high category of social participation. This percentage represented a smaller but significant portion of FPO members who displayed a strong and active involvement in various social activities. These individuals might have been likely to be highly engaged in community events, group discussions, and collaborative projects, contributing actively to the social cohesion and development of the FPO. On the other hand, 13.26% of the respondents belonged to the low level of social participation category. This might have been since a minority of FPO members exhibited a relatively limited involvement in social activities. These individuals may have participated in social events and engagements to a lesser extent, possibly due to personal constraints, time limitations, or individual preferences. Additionally, the statement mentions that 02.50% of the FPO members belonged to the "never participated" category of social participation. This smaller percentage indicated a very small portion of

respondents who did not actively participate in any social activities within the FPO. These individuals may have chosen not to engage in social events or may have faced challenges in integrating into the social dynamics of the FPO.

The distribution of social participation levels among the FPO members reflects varying degrees of involvement and engagement within the surveyed group. Factors such as personal preferences, time availability, social dynamics, and individual motivations might have influenced the level of social participation exhibited by each respondent. These results are similar to the findings of Pannu [20], Pranali [24] and Trupti [32] as majority of the respondents belonged to medium category of social participation.

3.8 Group cohesion

It is clear from the above Table (1) that majority of the respondents (65%) had medium group cohesiveness. 18.33 per cent of respondents had low group cohesiveness followed by 16.67 per cent of respondents with high group cohesiveness.

The reason for the given statement can be explained scientifically by understanding the concept of group cohesiveness and its distribution among the FPO members who were surveyed. Group cohesiveness refers to the degree of unity, bonding, and solidarity among the members of a group or organization.

According to the result, the majority of FPO members (65%) had a medium level of group cohesiveness. This suggests that a significant portion of the surveyed FPO members exhibited a moderate level of unity and bonding within the group. They likely experienced a reasonable level of trust, collaboration, and shared goals, contributing to a cohesive and harmonious working environment. Furthermore, the result indicated that 18.33% of the FPO members had low group cohesiveness. This percentage represented a smaller portion of FPO members who displayed a relatively weaker level of unity and bonding within the group. These individuals might have experienced challenges in establishing strong connections, fostering trust, or aligning their goals with other members, resulting in a lower level of group cohesiveness. On the other hand, 16.67% of the FPO members had high group cohesiveness. This suggests that a minority of FPO members demonstrated a strong sense of unity, bonding, and shared purpose within the group. These individuals might have experienced a high level of trust, cooperation, and mutual support, fostering a tight-knit and cohesive group dynamic. The distribution of group cohesiveness among the FPO members can be explained scientifically through factors such as interpersonal relationships, communication patterns, shared values and objectives, and the overall organizational culture. Elements like effective leadership, clear communication channels, and opportunities for collaboration and team-building can contribute to higher levels of group cohesiveness. Conversely, factors like conflicts, lack of shared goals, and inadequate communication may contribute to lower levels of group cohesiveness.

In summary, the distribution of group cohesiveness among the surveyed FPO members can be scientifically understood by examining the interplay of various factors that influence the unity, bonding, and collaborative dynamics within a group or organization.

Since FPO consists of group of farmers who themselves manages all the activities, group cohesiveness is an important component of entrepreneurial success. The result is in line with Kalaivani [12], Mathuabirami [15], Sreeram [29] and Srinithi [30] as majority of the respondents belonged to medium category of group cohesiveness.

3.9 Creativity

Creativity was operationally defined as the extent to which the members of the FPO perceived the level of intimacy or closeness they had among the other members of the group. The result presented in Table (1) clearly shows that 65.83 per cent of respondents had medium creativity followed by 18.33 per cent of respondents with high creativity and 15.83 per cent of respondents with low creativity.

According to the result, the majority of FPO members (65.83%) exhibited a medium level of creativity. This indicated that a significant proportion of respondents displayed an average level of originality and innovative thinking in their agricultural endeavors. They possessed the cognitive capacity to generate moderately novel ideas and explore alternative methods within the context of their farming practices and business operations. Furthermore, 18.33% of the FPO members demonstrated high creativity. This subset of respondents showed a stronger inclination towards original thinking and innovation. They exhibited an advanced cognitive ability to generate highly novel ideas, embrace unconventional approaches, and introduce innovative practices within their agricultural enterprises. In contrast, 15.83% of the FPO members displayed low creativity. This minority group exhibited a relatively limited capacity for original thinking and innovation. They were less prone to generating novel ideas or deviating from established practices, relying more on conventional methods within their agricultural pursuits.

The distribution of creativity levels among the FPO members could be attributed to various factors rooted in cognitive processes, individual traits, and environmental influences. Cognitive processes related to divergent thinking, problem-solving, and idea generation played a crucial role in determining an individual's creative potential. Additionally, individual traits such as openness to new experiences, risk-taking propensity, and cognitive flexibility contributed to the manifestation of higher creativity levels. Environmental factors, including the organizational culture within the FPO, availability of resources, and exposure to innovative practices, could also influence creativity levels. A supportive and stimulating environment that encouraged experimentation, knowledge-sharing, and collaboration fostered higher creativity among individuals.

In conclusion, the distribution of creativity levels among the surveyed FPO members was scientifically explained by considering cognitive processes, individual traits, and environmental influences. These factors collectively shaped an individual's creative potential and impacted their ability to generate novel ideas and embrace innovative practices in the realm of agriculture and business. FPO aims to increase the entrepreneurial behaviour of farmers. Creativity is an important component of entrepreneurial behaviour which aims to increase the capability of the farmer to offer products that are unique in the market space. The result is in agreement with Sreeram [29] as majority of the respondents belonged to medium category of creativity.

Table 1. Distribution of respondents according to their profile characteristics (n=120)

Sl.No	Variable	Category	Frequency	Percentage (%)
1	Age	Young	8	6.67
		Middle	63	52.50
		Old	49	40.83
2	Education	Illiterate	0	0
		Primary school	20	16.67

		Middle school	30	25.00
		High school	42	35.00
		College	23	19.17
		Professional degree	5	4.17
3	Annual income	Low	47	39.17
		Medium	51	42.50
		High	22	18.33
4	Scientific orientation	Low	18	15.00
		Medium	73	60.83
		High	29	24.17
5	Training attended	One	20	16.67
		Two	51	42.50
		Three or more	49	40.83
6	Credit orientation	Low	26	21.67
		Medium	61	50.83
		High	33	27.50
7	Social participation	Never participated	12	9.85
		Low	16	13.26
		Medium	75	62.53
		High	17	14.36
8	Group cohesiveness	Low	22	18.33
		Medium	78	65.00
		High	20	16.67
9	Creativity	Low	19	15.83
		Medium	79	65.83
		High	22	18.33

4. CONCLUSION

In conclusion, this research paper presents a scientific exploration of the profile of FPO members, encompassing various dimensions of their characteristics and attributes. The study rigorously examined parameters such as age, education, annual income, scientific orientation, training attended, credit orientation, social participation, group cohesiveness and creativity levels among FPO members. It was observed that FPOs comprised of middle aged farmers who completed their education up to high school level. The findings unveiled significant insights into the income distribution among FPO members, revealing a diverse range of income levels. A substantial proportion of FPO members fell within the medium income category, reflecting variations in financial capacities within the FPO. Majority of FPO members exhibited a medium level of scientific orientation which indicated that a significant proportion of respondents had shown a balanced propensity for incorporating scientific knowledge and techniques into their farming activities. The study revealed that significant proportion of the FPO members have attended relatively less number of training sessions. This suggested the need towards regular training programs focused on scientific farming methods and business management, which might effectively instill a sense of innovation among FPO members.

Additionally, the research unveiled the fact that majority of the FPO members belonged to medium level of credit orientation, social participation, group cohesiveness, and creativity among FPO members. These factors play a critical role in shaping the dynamics and effectiveness of FPOs. Understanding the patterns of credit utilization, the extent of social engagement, the strength of group cohesion, and the level of creative thinking within FPOs can guide the development of strategies that promote sustainable agricultural practices, effective collaboration, and overall growth and development.

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