



Members' perceptions of the dynamics forest farmer groups at special purpose forest area (KHDTK) Gunung Bromo

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Abstract

The goal of national development is to realize a sustainable agricultural system that is destructive without ecosystems and maintains the condition of the forest environment. One approach that the government can take to help agricultural development is through a group approach. The differences in the characteristics of forest plantations and agriculture make the activities of forest farmer groups an opportunity to maximize natural resources. The basic method used is quantitative with survey techniques. The research location is in villages or sub-districts around the Gunung Bromo Special Purpose Forest Area / Kawasan Hutan dengan Tujuan Khusus (KHDTK) Gunung Bromo. KHDTK Gunung Bromo, namely the villages of Sewurejo, Gedong and Delingan in Karanganyar District, Karanganyar Regency, Central Java, Indonesia. The research sample used proportional random sampling technique. The samples taken were 58 respondents who were members of agricultural forest groups covering three villages. Data collection was carried out using questionnaires, interviews and documentation. Data analysis used the Spearman Rank Test. The research results show that the perception of members at KHDTK Gunung Bromo is in the positive category.

Keywords: group dynamic; forest area; forest farmer; perception

1. Introduction

Population growth in forested areas impacts increased community interaction in land use to meet critical needs. Based on forestry production statistics published by the [Central Statistics Agency/ Badan Pusat Statistik \(2021\)](#), on the island of Java as many as 59.98 percent of households or 180.21 thousand households out of a total of 300.46 thousand control forest land covering an area of 1,000 – 4,999 m². Generally, the majority of land (62.03% of households) converted to forest land before becoming new agricultural land to meet the important needs of rural communities. In rural areas, non-agricultural employment opportunities are underdeveloped, so the community's orientation is to convert forest land to seasonal crop land. In addition to converting them into new agricultural land, many people are converting them into housing. Supported by [Triwanto et al. \(2012\)](#) which states that the impact of forest land conversion may give rise to new problems such as soil erosion, ecosystem extinction, floods and droughts.

The Gunung Bromo Special Purpose Forest Area / Kawasan Hutan dengan Tujuan Khusus (KHDTK) concept is formulated in Law No. 41 of 1999 article 8 paragraph 2 and

paragraph 3, as well as Regulation of the Minister of Environment and Forestry No. 15 of 2021 concerning the Organization and Work (Ministry of Environment and Forestry, 2018). Procedures of the Ministry of Environment and Forestry. Based on Decree (SK) No.177/MENLHK/SETJEN/PLA.0/4/2018. KHDTK Gunung Bromo has changed status and transferred management rights from previously being a Production Forest area managed by Perum Perhutani to Sebelas Maret University Education Forest (HP UNS). KHDTK was chosen as the research site because KHDTK Gunung Bromo is a forest area used by the UNS academic community for research and educational purposes but requires the participation of farmer groups. According to Nuranita et al. (2020), many groups that were formed from government or private activities for the sole purpose of social assistance lost group members or were unable to retain their members. Mashudi (2018) stated that forest farmer group business units can develop and be sustainable if they are supported by relevant government institutions, state land managers, village government institutions and third parties who will accommodate food or wood harvests. According to Nugroho (2017), in doing so management activities, not all activities to support education and training activities as well as forestry research and development can be carried out in an integrated manner, especially those related to forest utilization activities. Wicaksono et al. (2020) reported that most of the livelihoods of residents around KHDTK Gunung Bromo rely on agriculture. Therefore, the government as the highest institution supports agricultural development through a group approach. According to Sjafri (2014), the existence of a group is an effort by group members to obtain needs that they cannot fulfill themselves by collaborating with other people, both internal and external members or other groups in a social community.

According to Damanik (2015), the group method was chosen, because it is more efficient to use as a means of learning and interacting with farmers, bringing about positive changes in farmers' behavior and knowledge for the better. According to Amalia (2017), the existence of groups is something that is really needed in organizing and solving problems. The group's activities in KHDTK took place before the area's status changed and management rights were revoked. According to Supriono et al. (2013), one of the most important aspects of community forest management is the sustainability aspect which is technically determined and managed by community forest holders who are members of forest farmer groups. These community groups usually have attended forestry education, training and counseling. The forest farmer group class classification consists of beginner class, intermediate class and main class. According to Rangkuti (2013), indicators that are used as guidance are measures or combinations of measures that provide an overview of the process, project or product. According to Teluma & Rivaie (2019), assessment is the process of collecting and processing information to measure an achievement.

The KHDTK Gunung Bromo forest farmer group is divided based on the surrounding area, namely two sub-districts from Karanganyar District and one village from Mojogedang District, Karanganyar Regency, Central Java, Indonesia. The Wana Sewu group has 37 members from Sewurejo village, Mojogedang. The Putri Serang Group has 67 members from Gedong sub-district, Karanganyar and the Bromo Lestari group has 36 members from Delingan sub-district, Karanganyar.

Land utilization activities at KHDTK Gunung Bromo by forest farmer groups/ Kelompok Tani Hutan (KTH) are by planting agroforestry plants, namely annual crops including annual Mahogany, Sonokeling, Pine and Petai wood. The agroforestry system is the main land use effort carried out by forest farmer groups because one of the provisions of the change in forest function is that farmers are not allowed to cut down trees in forest areas. The use of wood in forest areas is carried out with special terms and conditions, apart from not being allowed to cut down trees, the wood taken comes from trees with fallen branches or wood. Junaidi (2013) stated that agroforestry is an alternative form of land use consisting of a mixture of perennials (trees or shrubs) with or without annual crops and livestock on one plot of land. The diverse plant composition in agroforestry causes this has a function and role that is closer to forest cover compared to agriculture, plantations, and

empty land. Agroforestry has functions similar to forests, especially regarding river basin (DAS).

Community groups meet the needs of their members with a common goal of engaging them as a dynamic and well-functioning group. According to [Wicaksono et al. \(2017\)](#), the more dynamic the group, the easier it will be to develop. According to [Rimbawati et al. \(2018\)](#) factors that influence the dynamics of a group are age, level of formal education, experience of farmer group members, agricultural extension intensity, and number of dependents in the family. Farmer groups as an interactive forum have different conditions and are classified into various categories, namely very active, active, somewhat active and inactive with high group dynamic conditions, medium or low. According to [Armitage et al. \(2012\)](#), group dynamics is a scope of social knowledge that concentrates more on knowledge about the nature of group life which shows progress. According to [Slamet in Wahyuni et al. \(2017\)](#), group dynamics are the forces within a group that determine group behavior and the behavior of group members to achieve group goals.

Researchers want to analyze group members' perceptions of the dynamics of forest farmer groups at KHDTK Gunung Bromo UNS Karanganyar Regency. According to [Anwar et al. \(2018\)](#), the age of respondents who are productive in carrying out activities is still relatively good and can obtain maximum results. According to [Epinda et al. \(2021\)](#), a higher level of education gives a person the opportunity to have more time to work so that the time they have becomes more expensive and the desire to work becomes higher. [Maramba \(2018\)](#) stated that farming experience has an important influence on a farmer's decision making because farmers will observe and study other farmers' farming rather than making decisions based on processing their own information. According to [Bria et al. \(2018\)](#). It is hoped that the support of extension workers in providing materials and conducting visits with a certain intensity will be able to bring about changes in a better direction. [Hanum \(2018\)](#) states that the number of dependents is grouped into two, namely small family dependents if they consist of less than 5 people and large family dependents if they consist of more than 5 people.

Based on the description, the objectives to be achieved in this research are to examine members' perceptions of the dynamics of their group, identify factors that influence members' perceptions of the dynamics of forest farmer groups, and examine the relationship between factors that influence members' perceptions of forest farmer groups and members' perceptions of dynamics of forest farmer groups in KHDTK Gunung Bromo.

2. Methods

2.1. Determining Location, Population and Sampling Techniques

The research was conducted for approximately one year, namely from October 2021 to October 2022 at KHDTK Gunung Bromo, Karanganyar Regency, Central Java, Indonesia. The basic method used in this research is the quantitative method. This research technique uses a sample survey of the population and uses questionnaires as research tools. The questionnaire of this research used a Likert scale with four categories, specifically eliminating neutral responses.

The subjects of this research were members of the KHDTK Gunung Bromo Forest farmer group, a total of 140 people divided into three groups. According to [Sugiyono \(2014\)](#), population is a generalized area consisting of objects or subjects that have certain qualities and characteristics that are determined to be studied and then conclusions drawn. Determination of sample groups used proportional random sampling, each group following the Taro Yamane formula, where precision has been determined at 10%.

$$n = \frac{N}{1 + (Ne^2)} \quad (1)$$

n = Total sample size

N = Total population size

e = Specified precision (10%)

$$n = \frac{140}{1 + (140 \times 0,1^2)}$$

$$n = 58$$

(2)

The number of respondents in this research is 58 people, of which the details are KTH Wanasewu 15 respondents from Sewurejo village, KTH Putri Serang 28 respondents from Gedong village and KTH Bromo Lestari 15 respondents from Deliling village. The sample of group members is obtained by random sampling so that each member of the population has the same opportunity to be selected as a member of the sample. The following is Taro Yamane's derivative formula.

$$ni = \frac{Ni}{N} \times n$$

(3)

n = Total sample size
 ni = Total sample of each group
 Ni = Total population of each group
 N = Total population size

Table 1. Total members' of forest farmer group

Forest Farmer Groups	Population	Sample
Wanasewu	37	15
Putri Serang	67	28
Bromo Lestari	36	15
Total	140	58

Source: Secondary Data, 2021

2.2. Determining the Classification of Dynamic Levels

A score of 1 is given for an unexpected answer, a score of 2 for a less expected answer, a score of 3 for an expected answer and a score of 4 for the most expected answer. Each answer score for all variables measured is added together to obtain a cumulative score. Cumulative score from the respondent then grouped into 4 levels with the largest interval range (Djarwanto in Dida, 2020).

$$i = \frac{R - r}{n}$$

(4)

i = Interval value
 R = Highest cumulative score
 r = Lowest cumulative score
 n = numbers of categories

Table 2. Example of maximum score percentage values achieved with reference Tables

Categories	Score	Percentage (%)
Very Low (VL)	25 - 43	5
Low (L)	44 - 62	10
High (H)	63 - 81	60
Very High (VH)	82 - 100	25
Total		100%

Source: Social Psychology Module Nikolaus, 2019

Find the average score for each respondent using the following formula.

$$i = \frac{\sum xi}{P}$$

(5)

i = Average score for respondent-i
 Σxi = Total score from respondent-i

P = Number of questions

Find the percentage of maximum score compared to the average score of group dynamics.

$$\% = \frac{i}{score} \times 100\% \quad (6)$$

Maximum score = 4

$$Interval = \frac{\Sigma score - \Sigma score}{\Sigma class} \quad (7)$$

Compare the percentage values of score achievement maximum with reference Table, on category where the value is located is the dynamic category group.

2.3. Rank Spearman Analysis Formula

Data management of questionnaires completed by respondents using IBM SPSS Statistic 25 application. Relations between factors affecting the perception of members of KHDTK Gunung Bromo using the Rank Spearman correlation analysis method. Spearman rank correlation is also suitable for data with small samples. When researchers are dealing with categorical data such as job categories, education levels, age groups, and other examples of categorical data, Spearman's Rank Correlation is suitable to use. Spearman's Rank Correlation is also suitable for use in conditions where researchers are faced with numerical data (rupiah exchange rate, financial ratios, economic growth). Meanwhile, the sign of the correlation coefficient shows the direction of the relationship. The negative sign (-) indicates the opposite relationship. The (+) sign indicates a unidirectional relationship. The opposite means that as the value of one variable increases, the other variable decreases. Unidirectional means that as the value of a variable increases, the other variables also increase.

$$r_s = \frac{1 - 6\Sigma di^2}{N(N^2 - 1)} \quad (8)$$

r_s = Spearman's rank correlation coefficient

N = Number of members in the sample group

d_i = Rank differences between factors influencing perception

6 = Constant number

$H_0 : r_s = 0$, This means that there are no factors that influence members' perceptions of the dynamics of their forest farmer group

$H_0 : r_s \neq 0$, This means that there are factors that influence members' perceptions of the dynamics of their forest farmer group

Test the significance of the relationship using a comparison between Sig (2 Tailed) with a 95% confidence level using the following formula.

$$t = r_s \sqrt{\frac{N - 2}{1 - (r_s)^2}} \quad (9)$$

H_0 accepted if $t \text{ count} < t \text{ Table}$ ($\alpha = 0,05$)

H_0 rejected if $t \text{ count} > t \text{ Table}$ ($\alpha = 0,05$)

3. Results and Discussion

3.1. Description of Research Respondents

The total number of respondents in this research was 46 (79%) male and 12 (21%) female. Data obtained from the random questionnaire showed that the majority of respondents were members of Forest Farmer groups, numbering up to 50 people. There are two group leaders, namely Putri Serang and Bromo Lestari. There are 6 people in total, including 1 administrator from Putri Serang, 3 administrators from Wanasewu and 2 administrators from Bromo Lestari.

3.2. Factors that Influence Perception

The unit used to calculate age is year. According to Table 3. the ages of the group members interviewed in this research ranged from 20 to 70 years old. [Ariga et al. \(2021\)](#), career advancement typically occurs between the ages of 40 and 45, a period when an individual's social and personal world becomes larger and more complex.

Formal education is a structured and hierarchical educational path that includes basic education, secondary education, and higher education. This type of teaching has a defined or undefined curriculum. The level of education a person completes will help them better know how to think, receive information, or evaluate problems that arise. According to Table 3. the level of formal education in this research was the last level of education completed by the respondent.

According to Table 3. a person's experiences in a group will influence how accurately they perceive a situation. Every individual has their own potential to develop and progress better. According to [Herwina & Simanungkalit \(2023\)](#), corporate experience is considered more effective than the formal education model because it focuses more on the needs and potential of each individual and pays more attention to the individual's circumstances. multiplied by neighboring groups where they live.

Group Extension is able to influence the skills of a group member. According to [Purnomo & Puspitaloka \(2020\)](#), the success or failure of an institution really depends on paying attention to or ignoring the reality of existing differences. According to Table 3. the amount of support from the instructor will change the behavior of group members. Family dependents are defined as those who are insured by the head of the family and remain part of the same family whose essential needs are still met. According to [Masitah \(2022\)](#), the number of family members can affect a person's business activities. According to Table 3. the more dependents there are in the family, the more dynamic the business will be because it is driven by the family's responsibility to be financially responsible. The ages of respondents in this research ranged from 35 to 70 years old, with an average of early elderly status (46 to 65 years old), and 26 (45%) had primary school education. Up to 50% of members have group experience from 1-10 years and are consulted very often, up to 52%. The number of dependents in the respondent's family is from 3 to 5 people (41%).

Table 3. Distribution of respondents based on factors that influence perception

Distribution of Respondents	Criteria	Amount (people)	Percentage (%)
Age	46 - 65 years old	22	37.9
Level of Formal Education	Not finished/finished elementary school	26	44.8
Forest Farmer Group Experience	1 - 10 years	29	50.0
Intensity of Extension	Once a month	30	51.7
Number of Family Dependents	3 - 5 people	24	41.3

Source: Primary Data Analysis, 2022

3.3. Members' Perceptions of the Dynamic Forest Farmer Group

Perception is the process of searching for information to understand using sensory tools. According to [Fahmi \(2020\)](#), the more important and attention-grabbing an event is, the more perceptions are formed unconsciously. The positive and negative perceptions formed will impact a person's actions, decisions, and even life path. Members' perceptions of the

Forest farmer group at KHDTK Gunung Bromo include several aspects of group dynamics, specifically aspects of group goals, group structure, task functions, training and development, group cohesion, group climate, group pressure/tension, group effectiveness, hidden agenda/hidden intentions. This perception is classified into very high, high, low and very low. The distribution of respondents based on the perceptions of Forest farmer group members at KHDTK Gunung Bromo can be seen in Table 4.

According to the Table 4. members' awareness is classified as high, meaning 41.38% of respondents think the group is very active. Members have high awareness, meaning that most members agree with the dynamics of their group. The distribution of respondents' perceptions is based on the aspects of group goals, group structure, task functions, orientation and development, group cohesion, group atmosphere, group pressure/tension, group effectiveness, hidden agenda/intentions are described as follows:

Table 4. Members' perceptions of forest farmer group

	Categories	Score	Percentage (%)
Distribution of Respondents Perception	High	86.5 - 96.7	41.4
	Low	66 - 76.2	5.2

Source: Primary Data Analysis, 2022

Group goals are the conditions desired by each member in the group and are then summarized into one goal to be achieved together. According to Umar (2020) group goals as the desired state of each member are categorized based on indicators of goal clarity, goals underlying activities, and relevance of group goals. Based on the Table 5. it can be seen that the number of respondents with a high level of understanding about the group's goals is 24 people, accounting for 41.4% of the total rate. On the other hand, the remaining 4 people had a very high level of understanding about the group's goals, accounting for 6,8%. This means that 24 members can state group goals, participate in activities, and group goals are similar to individual goals and only 4 people known-well about group goals.

Group structure is the relationship between individuals in a group. Team members are analyzed based on their position, status, and role. Criteria for group structure include member participation in decision making, communication processes, and rules used. Group structure is the relationship between individuals in a group.

Based on the Table 5. it can be seen that the number of respondents with good awareness of group structure is 23 people, accounting for 41.38% of the total rate. This means that some members simply fulfill their roles, participate in activities 2 to 3 times a month, regulations are respected quite well and information is conveyed easily to members. the member understands. This happens because respondents clearly understand their position in the group. Team members are analyzed based on their position, status, and role. Criteria for group structure include member participation in decision making, communication processes, and rules used.

Based on the Table 5. task functions in group dynamics are organized so that each group member does something based on their respective function and position in the group structure. Criteria for task functions in groups include motivational functions, participation functions, problem-solving functions and information-providing functions. It can be seen that the number of people with good awareness of functions and tasks in the group is 29 people, accounting for 50% of the total rate. Some members hold information quite well, have the ability to discuss among members, motivation mostly comes from family/relatives, actively invite relatives/other members to participate in activities and respondents participate to fulfill needs. This happened because the interviewees clearly understood their functions and tasks within the group.

Group training and development is carried out so that each member can maintain and develop life in his or her group. Criteria for group training and development include the

availability of group facilities, as well as the socialization of group norms and rules to which members adhere. Based on the Table 5. it can be seen that the number of people agreeing that team training and development is appropriate is 33 people, accounting for 56.9% of the total number of respondents. This means that the majority of members use the group's facilities, comply with the standards, and understand the group's rules. This happens because respondents clearly understand their functions and duties within.

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Group cohesion is expressed by a feeling of destiny, common actions, uniformity of behavior, as well as unity in group goals and recognition by the group leader. Group cohesion indicators are measured based on loyalty, sense of belonging, sense of belonging, and sense of cohesion. Based on the Table 5. it can be seen that the group's cohesiveness received a score of 6.76 – 8.51, as many as 46.55% of the total respondents agreed that the group's situation was less than cohesive.

This means there is a lack of contribution between members, there have been less than 6 collaborative activities between group members in the last 2 years, and relations between members are less than harmonious. This happened because several respondents had problems with the boundaries of their cultivated land. Apart from that, disharmony occurs because some forest farmers are immigrants and have no blood ties with other members so that the delivery of the best information considers the agroforestry business to be just a side job.

Group atmosphere is the morals, attitudes, and feelings of enthusiasm or apathy that exist within the group. The group atmosphere can be in the form of friendliness, solidarity, freedom of action, orderliness, and so on. Based on the Table 5. it can be seen that the member comfort level received a score of 7.6 – 9.1, namely 32.76% of members felt uncomfortable or in the low category. This means that some members are related by blood, some members are uncomfortable because they have conflicts with other members and have not implemented 96 deliberation results. This happened because the relationship between several respondents was not good.

Group pressure comes from within and from outside the group. Group pressure can take the form of internal competition between group members, competition with other groups, and openness to criticism and suggestions. Based on the Table 5. it can be seen that the number of respondents with a strong awareness of group pressure is 25 people, accounting for 44.64% of the total. This happens because there is conflict, sanctions and rewards have not been applied, conflicts are resolved without the participation of other parties. However, respondents remained open to criticism and suggestions for personal improvement.

Group effectiveness is measured based on indicators including the role of members, the level of success in group activities and the spirit of group members. Whether or not a group is effective depends on its ability to achieve its goals. Based on the Table, it can be seen that as many as 37.93% of respondents feel free to express their opinions, the number of members has increased in the last year, regular monitoring is carried out, and members' personal goals have been achieved in the group. The hope of increasing skills in farming can be fulfilled. This happens because all entities that play a role realize the importance of group effectiveness in the long term.

Hidden agendas are goals that are known to all members but are not stated in writing. Hidden agendas can take the form of hidden intentions of the chairman or members. Based on the Table, it can be seen that the number of respondents who have the perception that there is a hidden agenda is low at 25 people or 43.10% of all respondents.

This means that few members know the unwritten common goals, both the goals of the chairman and other members. This happens because these goals have less impact and do not hinder group performance.

Table 5. Group dynamic of forest farmer group

Elements of Group Dynamics	Categories	Score	Percentage (%)
Group Goals	High	8.2 - 10.2	41.4
	Low	10.3 - 12.3	6.8
Group Structure	High	10.2 - 12.6	41.4
	Low	5.0 - 7.5	18.4
Task Function	High	10.5 - 13.3	50
	Low	5.0 - 7.7	8.6
Coaching and Development Group	High	5.2 - 6.7	56.9
	Low	3.6 - 5.1	8.6
Group Compactness	Low	6.7 - 8.5	46.5
	High	10.3 - 12.0	6.9
Group Atmosphere	Low	7.6 - 9.1	32.7
	High	6.0 - 7.5	20.7
Group Pressure	High	9.5 - 11.3	44.6
	Low	6.0 - 7.7	5.4
Group Effectiveness	High	19.5 - 23.3	37.9
	Low	12.0 - 15.7	8.6
Hidden Agenda	Low	5.3 - 7.5	43.1
	High	9.8 - 12.0	10.3

Source: Primary Data Analysis, 2022

3.4. *The Relationship between Factors Influencing the Perception of Member' Perception of Dynamic Forest Farmer Groups at KHDTK Gunung Bromo*

Research was conducted to analyze the relationship between factors that influence members' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo. The factors that influence perceptions in this research are age, level of formal education, experience in farmer groups, intensity of extension, and number of family dependents. Members' perceptions of the dynamics of forest farmer groups are measured through aspects of group goals, group structure, task functions, coaching and development, group cohesiveness, group atmosphere, group pressure/tension, group effectiveness, hidden agendas/hidden intentions.

Analysis is used to test the relationship between factors to influence members' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo, the Spearman Rank correlation test (r_s) was used. The level of significance is determined by comparing the $\text{sig.}(2\text{-tailed}) > \alpha$ value, then H_0 is accepted so that there is no significant relationship between the factors that influence perceptions and members' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo. H_0 is rejected if $\text{sig.}(2\text{-tailed}) < \alpha$, which means there is a significant relationship between the factors that influence members' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo.

The results of this relationship analysis can be briefly seen in Table 6 as follows: The respondent's age factor has a significant relationship with members' perceptions of the dynamics of forest farmer groups. The Table 6. shows the value of the Spearman rank correlation coefficient (r_s) which is (0.261) with $\text{sig.}(2\text{-tailed})$ is (0.048) $< \alpha$ (0.05), at the 95% significance level. This shows that H_0 is rejected and H_a is accepted, so there is a significant relationship between age and members' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo. The correlation coefficient (r_s) value of 0.261* is included in the strong category with a positive (-) or opposite direction of the relationship. These results mean that the age of group members is able to shape respondents' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo. The age of the respondents in this study is mostly classified as early elderly, who have more control over the scope of the area they work on and are also sufficient with the work they are carrying out. This makes the age factor an influence on changes in members' perceptions because respondents are flexible and adaptive to changes or dynamics that exist in the group.

The extension intensity factor has a significant relationship with members' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo. The Table 6. shows the value of the Spearman rank correlation coefficient (r_s) which is (0.374) with $\text{sig.}(2\text{-tailed})$ is (0.004) $< \alpha$ (0.05), at the 95% significance level. This shows that H_0 is rejected and H_a is accepted, so there is a significant relationship between members' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo. The correlation coefficient (r_s) value of 0.374** is included in the very strong category with a positive (-) or opposite direction of the relationship. These results mean that the extension carried out by the instructor.

Forests are able to shape respondents' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo. Extension activities in the form of training and workshops on agriculture which were attended by respondents resulted in more group members learning and understanding forest farming in their farmer groups. Most members have participated in outreach activities, training and workshops regarding agroforestry at KHDTK Gunung Bromo.

The factor of number of family dependents has a significant relationship with the perception of members of the forest farmer group at KHDTK Gunung Bromo. The Table shows the value of the Spearman rank correlation coefficient (r_s), namely (0.275) with $\text{sig.}(2\text{-tailed})$ is (0.036) $< \alpha$ (0.05), at the 95% significance level. This shows that H_0 is rejected and H_a is accepted, so there is a significant relationship between the number of family dependents and the perception of members of the forest farmer group at KHDTK Gunung

Bromo. The correlation coefficient (rs) value of 0.275* is included in the strong category with a positive (-) or opposite direction of the relationship.

Table 6. Statistical test of the relationship between factors that influence perceptions and group members' perceptions of the dynamics of forest farmer groups at KHDTK Gunung Bromo

Factors that Influence Perception	Members' Perceptions of the Dynamic Forest Farmer Group		Annotation
	rs	Sig.(2-tailed)	
Age	0.261*	0.048	S
Education Level	0.184	0.168	NS
Farmer Group Experience	0.184	0.167	NS
Extension Intensity	0.374**	0.004	VS
Number of Family Dependents	0.275*	0.036	S

Source: Primary Data Analysis (2022)

Note:

rs = Spearman Rank Correlation
 α = 0,05
 VS = Very Significant
 S = Significant
 NS = Not Significant

The relationship between factors that influence members' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo is as follows (Figure 1):

- a. There is no significant relationship between the level of formal education and experience in farmer groups and members' perceptions of the dynamics of forest farmer groups.
- b. There is a significant relationship between age, intensity of extension, and number of family dependents with members' perceptions of the dynamics of forest farmer groups.

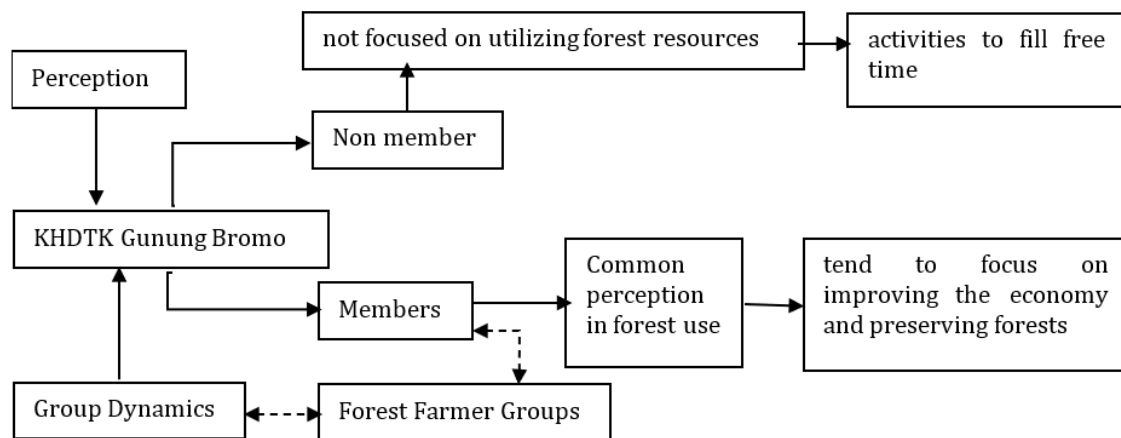


Figure 1. Schema Analysis

4. Conclusions

The perception of forest farmer group members as a whole regarding group dynamics at KHDTK Gunung Bromo is included in the high category, which means that the results of the distribution of respondents based on factors that influence members' perceptions in this study indicate group dynamism. The assessment of member perceptions includes several aspects of group dynamics, namely aspects of group goals, group structure, task functions, coaching and development, group pressure/tension, and group effectiveness. Other aspects, namely group atmosphere, group cohesiveness, and hidden agendas are included in the low category, because several respondents had problems with other group members or between group members themselves regarding the distribution of their farming land. The majority of factors that influence members' perceptions of the dynamics of forest farmer groups in KHDTK Gunung Bromo are in the high category, namely age, intensity of

extension, and number of family dependents. This is because the older a person gets, the more adept they become at running a farming business, extension services under the auspices of KHDTK regularly hold meetings once a month, and the average number of family members supported by more than two people which influences the enthusiasm for work becomes higher. The higher a person's level of formal education does not guarantee his or her activeness in the group and the average experience of forest farmer groups at KHDTK Gunung Bromo by members is in the last year so it does not support the existing group dynamics.

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Author Contribution

Conceptualization, A.M.W., W., S.A.; Methodology, A.M.W.; Software, A.M.W.; Validation, A.M.W., W., S.A.; Formal Analysis, A.M.W.; Investigations, A.M.W.; Resources, A.M.W.; Data Curation, A.M.W., W., S.A.; Writing – Original Draft Preparation, A.M.W.; Writing – Review & Editing, A.M.W., W., S.A.; Visualization, A.M.W.

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Based on direct observation, data have been generated based on request due to confidentiality or ethical constraints.

Conflicts of Interest References

The authors declare no conflict of interest.

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