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The Process of Motivational Change in a Farmers' Group: A Case Study in Majalengka Regency, West Java Province, Indonesia

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Abstract: Rural agricultural development in Indonesia requires the collaboration of groups of farmers to build a comprehensive development program. When farmers unite in a group, they gain a strong bargaining position in relation to other agribusiness stakeholders. However, groups of farmers often cannot survive in the long term. This condition makes agricultural development or poverty reduction programs difficult to sustain. The Mekar Jaya Group is an interesting case because it is a group of farmers that has been able to survive over the long term. This paper describes the history of the Mekar Jaya Group's process. The focus of discussion in this paper is the process of changes in the group's development phases. Furthermore, this study examines the group's motivational and affection factors. These include internal factors, external factors and the role of the leader. The results show that internal factors, such as members' experience in caring for sheep, primarily contribute to group motivation.

Key words: Group history, group change process, motivation for membership, internal factors, external factors, role of the leader

INTRODUCTION

Since the Reformation of May 1998, Indonesia has witnessed continuous political change. One such change was the autonomy granted to the secondary level of Indonesia's local government. A national program of regional autonomy moved toward the decentralization of authority, shifting power over households from central to regional government. This shift has given regional governments the ability to make decisions that are better adapted to local needs and issues.

The program of regional autonomy has pushed for the independence of many sectors, including the agricultural, animal husbandry and fishery sectors. These sectors are important to Indonesia's economy, especially for Indonesian villages. A region that has subsequently developed its agricultural sector is the Majalengka Regency. This region has implemented a program to increase national food safety by subsidizing farmers (Program Ketahanan Pangan Nasional, or PKPN). The Majalengka Regency implemented the plan because it is the region with the greatest agricultural resources in West Java Province.

One group that has participated in this program is the Mekar Jaya Group, a union of the small sheep husbandry groups in the village. The Mekar Jaya Group was created by uniting smaller farmers' groups consisting of a minimum of ten people (commensurate with the agricultural department's description of a farmers' group). The Mekar Jaya Group of the Kadipaten sub-district of the Majalengka Regency is one example of a program aimed at village-level development in Majalengka. The group grew from the villagers' awareness that collective action was an important tool for increasing prosperity. Compared to other such village groups, however, Mekar Jaya Group has been able to survive much longer. It stands as an example of how a group's program can survive over the long term.

The survival of the Mekar Jaya Group is one of the characteristics that sets it apart from other groups with similar backgrounds and it raises the question of what factors are related to a group's lifespan or development. One possible answer is that development can only be realized if participants are engaged with the goals of development, both intellectually and actively. Active participation emerges from positive perceptions of the program and the participation o f the local leader. Damisa *et al*. (2007) also stated that perception affected participation when they studied about women participation in agricultural production in Nigeria. The same phenomenon has also described by Zarafshani *et al*. (2008) for the participation of farmer in Participatory Irrigation Management in Iran.

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The process of change in the group's leadership is a factor that affects group motivation. Therefore, it is interesting to examine how the change process motivates the group. Based on the background presented above, the research questions addressed in this study are as follows:

- How does the process of changing group motivation occur
- What factors contribute to the group motivational process

Some theories have attempted to explain how motivational processes occur, including social exchange theory, self-categorization theory and identity theory. Moreland *et al*. (1993) have developed a group socialization model to address what they consider to be the lack of diachronic perspective in many models of group formation and development. This model explained the forces that propel people into and out of groups, or the motivational processes. In their recommendation, they suggested that future research should examine group motivational processes in groups that survive over the long term.

Motivation becomes important factor that affect participation in one activity is also stated by Muderrisoglu *et al*. (2005) when studied about the participation of small group visitors in recreation activity. Ahmadi *et al*. (2009) added the relationship between motivation and adjustment in academic student group. They stated that student motivation has affected the performance of the student.

Some scientists have conducted research on the performance of long-term groups. Uchrowi (2006) has analyzed models of group survival in farmers' groups by studying groups that survived over the long term in Java Province. He used Parson's theory as an approach to study group survival by considering adaptation, goals, integration and latency. Uchrowi stated that group dynamics are not the only way to measure group process, but the group as a system can be studied using Parson's theory. Furthermore, Uchrowi stated that to survive, a group must pass through four steps in its lifetime.

Suharno (2009) studied the relationship between the characteristics and management of long-lived groups and group performance in Indramayu Regency, West Java. He used an input-output approach to define Parson's steps (adaptation, goal, integration and latency). Input consists of group characteristics (formation background, group ties, group size, group age, group activity, business outreach and group leadership) and member characteristics (motivation for group membership, knowledge and attitude about the group, vision of the future, aspirations, creativity, sources of information, social mobility, cooperative spirit, participation in the group and technology mastery). However, his study focused only on group characteristics, not member characteristics.

Further, Suharno defined group management as including a group's goals, plans, tasks, recording, communication, cooperation, creativity, conflict, member empowerment, socialization and social control. Finally, he defined group performance as including business scale, capital and reputation as well as membership size, quality and satisfaction. The results showed that a group's ties, size, age, activity and leadership correlate significantly with the group's performance. Furthermore, group management has a significant relationship with group performance. When he correlated group characteristics with group management, he found that all elements of the group characteristics have a significant relationship with group management. He concluded that groups need external guidance and assistance from extension offices, local government and universities to support their survival.

Although Uchrowi and Suharno did not focus their studies on member motivation, they realized that the motivation for group membership is one of the main areas needing further study to understand group survival. Suharno supported the idea that the psychology of the members is the member characteristic that has the strongest relationship with the group's sustainability. Subejo and Matsumoto (2009) who studied about traditional group which organized the labor exchange in rural java have founded that sustainability of group over long term has connection with group characteristics. One of them is close relationship among members.

This study attempts to present further discussion on group motivation and its relationship with group sustainability over the long term, as suggested by Moreland, Levine and Cinii. Additionally, this study presents the specific method for collecting data using members' memories in response to questions about the condition of the group during each leadership period. This method will clearly demonstrate the motivational process. This is the main difference between this study and other studies, such as those conducted by Uchrowi and Suharno.

Motivation includes the drive and/or support to do something. According to Kartono (2008), motivations are (1) the forces that cause behavior for a certain purpose, (2) the basic reasons, thoughts and support that encourage someone to do something and (3) the main idea influencing a person's behavior. Berelson Steiner describes motivation as "an inner state that energizes activities or moves (hence motivation) and that directs or channels behavior toward a goal". The research on motivation has considered both intrinsic and extrinsic motivations for membership. Herzberg *et al*. (1959) theory

on motivation, [1]Two-Factor Theory, suggested that two factors are the source of motivation: motivators (internal) and hygiene factors (environmental).

Some factors have been identified to describe group members' motivation. Suharno (2009) stated that leadership is an important characteristic of groups. Gibson stated that the person who becomes the leader of an informal group is commonly viewed as the most respected and powerful member, who is able to (1) help the group to reach their goals, (2) help members to fulfill their needs, (3) personify the group's values, motivations and aspirations, (4) represent the members' opinions when interacting with other groups and (5) facilitate the resolution of group conflicts.

Kusnadi (2005) has also studied the role of leadership in promoting effectiveness in farmers' groups by using the indicator of role of leadership as mentioned above, but he used only four indicators. He correlated the leadership role with internal member factors and determined that the leadership role has a high correlation value (significant) with the motivation of the members.

In contrast to Kusnadi (2005) work which used only four indicators, this study used five indicators for the role of the leader. In this way, it is similar to Gibson's study. These five indicators are used to define the role of group leadership and to describe its influence on group motivation.

MATERIALS AND METHODS

This case study generates a descriptive explanation of group development. The change process is one of the themes of group development.

The location of the research was Cangkring Hamlet of Kadipaten Village, Kadipaten Subdistrict, Majalengka Regency, West Java Province. This location was chosen based on the case under consideration, in which the processes of people's empowerment that contribute to group life are affected by several factors.

The research population included all 69 members of the Mekar Jaya Group. The research sample included the entire population which increased the significance of the results of this research (complete enumeration). The number of members varied according to the phase to which they belonged. The unit of analysis was the change process of group members' motivation.

The data were collected through interviews, fieldwork and secondary data. The secondary data included the group's administrative books, other relevant research and literature, village monographs and statistical notes from the regional government office.

The following method was used for surveys. Surveys were administered as in-person interviews with an emphasis on the members' description or explanation of the indicators of research in each leadership era (the group has experienced four leadership changes). Members were asked to recall their memories and experiences about the group's life. Interviews were conducted using a questionnaire that had been pre-tested with selected members of group. Furthermore, group discussions were held to gather qualitative information about the group. The fieldwork was conducted by the researcher. Data collection took place in 2002 and was updated in 2009. The data were analyzed using Partial Least Squares (structural equation modeling based on variance) to determine which factors strongly contributed to the group's motivational processes. This method was used because the model consists of latent and observed variables but the sample size is less than 100 (Ghozali, 2006).

The goal of this research was to determine how the motivational change process occurs in groups. This change is important because it is expected that the motivation for group membership has a strong influence on a group's sustainability. This motivation is affected by internal factors, external factors and the role of the leader, as illustrated (Fig. 1).

There are four latent variables: internal factors (X1), external factors (X2), the role of the leader (X3) and the motivation for membership (Y). X1, X2 and X3 are exogenous variables and Y is an endogenous variable. The structural equation modeling of this framework is:

$$Y = \gamma 1 + \gamma 2 + \gamma 3 + \zeta$$

where, Y is the motivation for becoming a member; γ1 is the path from internal factors to motivation; γ2 is the path from external factors to motivation; γ3 is the path from the role of the leader to motivation; and æ is the residual value. All models used $\alpha = 0.05$.

The endogenous variable X1 consists of formal education (X1.1), informal education (X1.2), sheep herding experience (X1.3) and income stage (X1.4). The measurement model for X1 is formative. The model is shown below:

$$X1 = \gamma X1.1 + \gamma X1.2 + \gamma X1.3 + \gamma X1.4 + \zeta_1$$

[1]The Two-Factor Theory suggests that humans have two different sets of needs and that different elements of the work situation satisfy or do not satisfy these needs. The first set of needs include hygiene factors. These factors are not directly related to the job itself but concern the conditions for performing that job. The second type of needs include growth needs, which refers to intrinsic factors within the work itself.

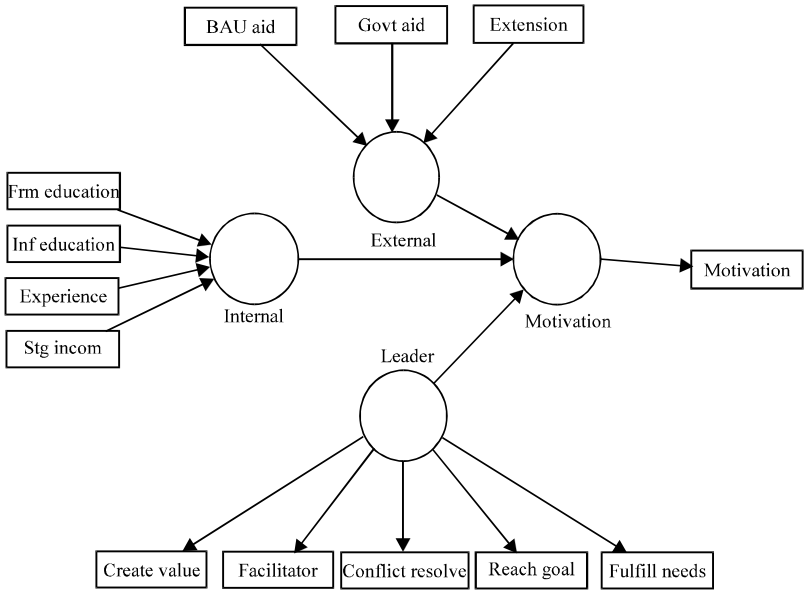

Fig. 1: Diagram of research framework

The endogenous variable X2 consists of BAU aid (X2.1), government aid (X2.2) and extension intensity (X2.3). The general measurement model for this variable is:

$$X2 = \gamma X2.1 + \gamma X2.2 + \gamma X2.3 + \gamma X1.4 + \zeta_2.$$

The model changed between phase II and phase IV; the model was run without X2.1.

The endogenous variable X3 consists of the leadership role to reach the goal (X3.1), to fulfill needs (X3.2), to create value (X3.3), to facilitate external cooperation (X3.4) and to resolve conflict (X3.5). The measurement model for this factor is the reflective model, as shown below:

$$X3.1 = \lambda 8.X3 + \varepsilon 3,\ X3.2 = \lambda 9X3 + \varepsilon 4,\ X3.3 = \lambda 10.X3 + \varepsilon 5,$$
$$X3.4 = \lambda 11.X3 + \varepsilon 6,$$
$$X3.5 = \lambda 12.X3 + \varepsilon 7.$$

Operational definition and measurement

Internal factors: The internal factors of the group studied in this research include the formal education of members (elementary school, junior high school and senior high school), the informal education of members (trainings or internship in each leadership era), experience of sheep herding (knowledge and skill in taking care of sheep) in each leadership era and the income stage of members in each leadership era, determined from income data in 2002 and 2009 and its fluctuation through sheep sales for the active members in each phase (the grade of each indicator is explained in the appendix). The result is an ordinal score and is treated as interval data.

External factors: Aid from the regional government was measured by members' knowledge of the system of aid, the amount of that aid, the members' attitudes toward the aid and the sustainability of the aid. It was categorized as low, medium, or high. Aid from universities was measured by members' knowledge of the aid, the amount of aid received, the members' attitudes toward the aid and the sustainability of the aid. The result was categorized as low, medium, or high. The intensity of agriculture extension was measured by the frequency of extension, the amount and type of extension material and members' attitudes toward the extension. It was categorized as low, medium, or high.

The questions began by asking the members for responses based on situations from each leadership era. For members' perceptions or attitudes toward the aid, the responses were divided into the choices agree, neutral and disagree on a Likert scale (the parameter explanation is in the appendix). The score was ordinal data but was treated as interval data.

The role of the group leader: The role of the leader was measured by the following:

- The contribution of the informal leader to helping the group reach its goals

- The contribution of the informal leader to helping group members meet their needs.
- The contribution of the informal leader to increasing the value of the group
- The contribution of the informal leader to representing the members' opinions in interactions with other groups' leaders
- The contribution of the informal leader as a facilitator of conflict (see the appendix for the indicator explanation)

The choices for each answer were presented on a Likert scale according to the purpose of question, such as often or not often for frequency. The questions also asked for the member's perceptions of the role of each leader during the time that they were a group member. The score was ordinal data and was treated as interval data. Statistical operations were then carried out, such as the sum and average.

Motivation for becoming a group member: Motivation for becoming a group member is the reason members decided to join the group. In this research, motivation consisted of intrinsic and extrinsic motivation. Intrinsic motivation is described as (1) the desire to live in the group; (2) the desire to achieve skill and knowledge in taking care of sheep and (3) the responsibility for attaining a better life for the member and his or her family. Extrinsic motivation is described as the motivation to obtain an economic profit from the group's activity and the environment which may influence the decision to become a group member. Using these indicators, a question list was developed using a Likert scale with three possible responses: agree, neutral and disagree. The questions began by asking the members for responses based on the situation when they joined. The results became ordinal data and were treated as interval data.

The test of data validity is performed to obtain exact measurements of content and construct validity. The validity test is conducted by determining the extent to which a measure represents all aspects of the concept. If the concept of interest is captured completely by the research instrument, this will be reflected in the high validity of the instrument.

Construct validity is determined by listing the concepts used in the research. The standards of operation are then arranged based on the concepts. The concepts used in the research are arranged based on the literature and the opinions of the experts quoted in a master's thesis titled, "The Role of the Informal Leader in the Sustainability of the Group".

Table 1: The results of reliability tests of the main variables

Main variables	Result
Internal factors	0.71-0.74
Motivation for membership	0.73-0.81
External variable	0.72-0.74
The role of the leader	0.71-0.77

To determine which instruments have high standards of measurement, reliability is calculated by using the repeated method, in which the same respondents complete the same measure at two different times. The reliability test is conducted in the same location as the research with 10% of the individuals from the original sample. Then, the first and second results are compared using Pearson's correlation after the results have been changed to interval data.

Table 1 shows the result of the reliability test shows the strong value correlation (>0.5) among variables. The r-result is higher than the r-table (0.707) which means that the items could be used in the research.

GENERAL DESCRIPTION

The Mekar Jaya Group (MJG) is located at Cilutung Dike, Cangkring Hamlet, Kadipaten Village, Kadipaten Subdistrict, Majalengka Regency, West Java Province. The secondary level government of Majalengka is a regency in the province of West Java that has large agribusiness potential and in this sector, the largest regional income was received by Majalengka Regency (Fig. 2). Majalengka is administratively composed of 26 districts with 318 rural villages and 13 urban villages.

Kadipaten Village is in the northern part of Majalengka Regency (Fig. 3). It is located 6 meters above sea level and has an average temperature of about 32°C. Most of the villagers have jobs in labor or the private sector (45.5%) or in trading (30.3%). Other occupations include farming (4.8%), farm labor (9.7%), husbandry (0.9%), public service (7.4%), craftsmen (0.2%), doctors (0.1%) and mechanics (0.9%).

Kadipaten Village has 7 hamlets, including Cangkring Hamlet, the location of the research. Unlike other hamlets in which the main occupations are in trade or the private sector, the people of Cangkring Hamlet primarily work as farmers and sheep traders, especially in RT (Rukun Tetangga, small neighborhood units) 12 and 13. The total population of RT villagers is 435 people. This number includes 91 heads of households, of which 56% are farmers and farm labors and 23% are traders. The rest are in self-employment sectors, such as pedicabs and motorcycle taxis.

Taking care of sheep has become traditional for most people who live near or along the Cilutung River (the river

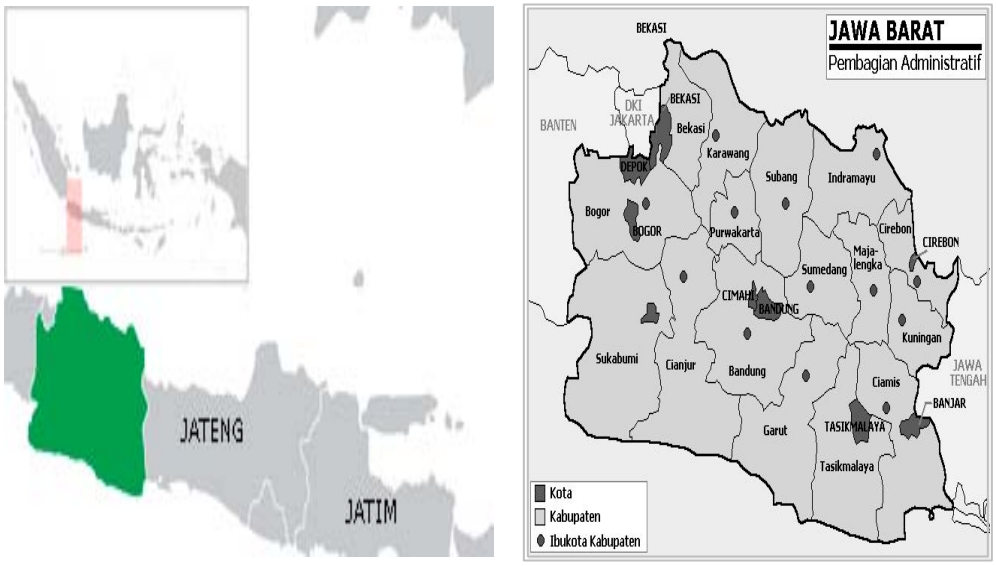

Fig. 2: Map of Indonesia and west java province (Jawa Barat)

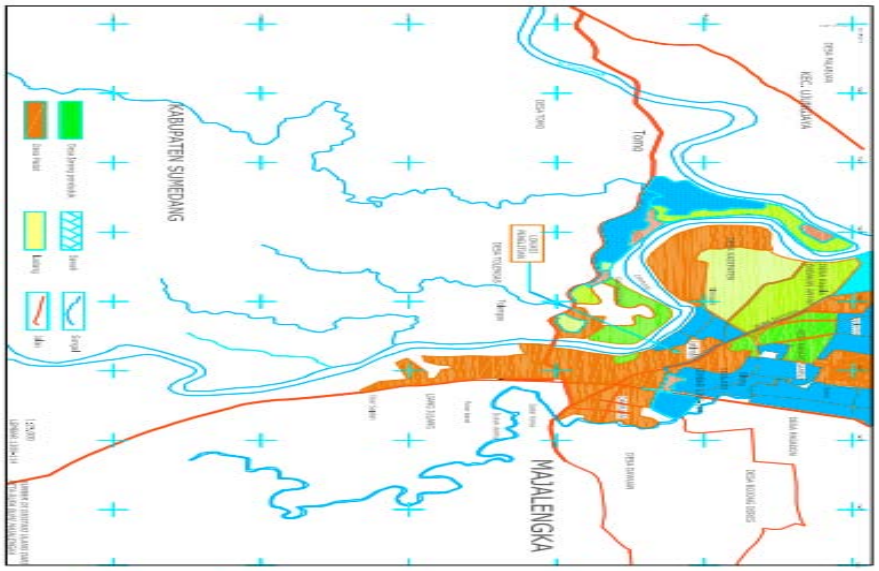

Fig. 3: Map of kadipaten village

at Kadipaten sub district). One reason for this is the ease of finding or planting grass along the river. Even though many of the villagers take care of sheep, it is not easy work. This type of work requires skills to achieve good results, including knowledge of how to select good male and female sheep, how to mate the sheep, how to feed the sheep, how to cure diseases and how to sell them to the market.

The variety of sheep developed by this group is Garut sheep. Famous in Indonesia, Garut sheep are a rare variety of superior quality with some specific physical characteristics. They have a larger and heavier body size

Table 2: Income structure of members

Source of income	Active members (.000)	(%)	Ex-members (.000)	(%)
Farming	4.500	24.2	3.600	20.1
Sheep sale	2.251	12.1	-	-
Labor	2.630	14.1	6.335	35.4
Farm labor	2.640	14.2	2.750	15.4
Self-Employment	5.553	29.9	4.495	25.1
Side Income	1.019	5.5	719.000	4.0
Total	18.593	100.0	17.899	100.0

Source: Primary data, 2009. The value is the average income per member per year

than other sheep and are known for their large, beautiful horns. This variety has a very aggressive nature and good fighting skills which make them economically attractive. In West Java Province, contests displaying the Garut fighting skill are traditional attractions. A sheep that wins a contest is worth approximately twice as much as the usual price.

The sale of sheep has a significant influence on the group and members' income structure. When discussing the group's income structure, it must first be noted that the group is composed of members with several different occupations. In Cangkring Hamlet, 75.8% of heads of households have become group members. Their occupations include 24 farmers, 18 laborers (including 13 farm laborers), 23 traders (including 8 sheep traders), 1 pedicab and 1 motorcycle taxi. After joining the group, members were separated into active and inactive members. During the last phase of the group's life, the inactive members became ex-members.

As shown in Table 2, the average income of active members is slightly higher than that of ex-members because active members have additional income from the sale of sheep. This factor clearly influences the income structure of the members. Ex-members do not have this additional income because they no longer have sheep. The most extreme difference between active members and ex-members is in labor income; it is clear that ex-members have higher income than active members because this category includes retired public servants, who receive pensions and factory workers, who have high income.

RESULTS AND DISCUSSION

Group history: The Mekar Jaya Group has experienced various phases over its lifespan. These phases and their explanations are described in the following sections.

Phase I (1989-1994): Phase I began in 1989 at a location usually called *Balong pengairan* Stalls (Irrigation Pool Stalls). This term was used because the stalls are located near a natural pool that could be used for irrigation. The group was called Harapan Mekar which means "hope blooms". In Phase I, the group membership 1consisted of 18 farmers, 4 farm laborers and 8 sheep traders. The members were divided into two types based on their sheep ownership before the project: those who had sheep before the project and those who had no sheep before the project. The first group consisted of 22 members, including 18 farmers, 2 laborers and 2 sheep traders. The second group consisted of 8 people who had no sheep before the project, 6 sheep traders and 2 farm laborers.

During Phase I, the group accepted aid from a lecturer at Bogor Agriculture University's (BAU) Department of Husbandry and Social Economics. This aid involved providing superior sheep (Garut sheep) that were chosen and bought from the sheep market in Kadipaten Subdistrict. The aid was given to approximately 30 members, each of whom received one female sheep and two superior male sheep which were placed in the leader's stall. Repayment was scheduled for 1993, four years later. Most members were able to repay some of their installments and only one or two people were unable to repay their obligations. In 1995, the stalls were moved to the flood plain of the Cilutung, although Leader A (the leader in Phase I) did not agree to move the location. He felt that the new location was too far from the village. The resulting group conflict led to a succession of leadership.

The conflict between Leader A and the village was based on the plan to move the location. Leader A, who was not liked by the village administrators, accused them of seeking a profit from the land used for housing. The village administrators realized that if the location of the stalls was moved to a specific area, the group would receive aid from the local government. The situation became complicated and most of the members supported the plan to move. Finally, the leader gave up; however, he did not want to continue as the leader because he did not want to be viewed as a loser and he nominated his replacement. However, he retained power in the group and he remained active even after the conflict between him and the village administrators. Leader B (the leader in Phase II) appeared to mediate the conflict and prepared the group to accept new aid. In the new location, the name was changed from Harapan Mekar to Mekar Jaya, indicating that the group had already achieved glory.

Phase II (1995-1997): The next aid to be received came from BKKBN (Badan Koordinasi Keluarga Berencana Nasional/National Family Planning Coordination Body) in 1995. The aid took the form of simple credit with 0.5% interest. Repayment was to occur in three installments over a period of two years in consideration of the three months it takes a sheep to grow. Membership increased from 30 to 60 members. The structure of the group also changed during this time to include women, a condition

for accepting the aid from the Family Planning Institution. Therefore, of the 30 new members, there were 10 women who united in one small group. These women were the wives or sisters of former members, so caring for the sheep was still primarily conducted by their husbands or brothers. After the end of the aid in 1997, this small unit was dismissed from the group. Therefore, the actual number of members during this phase was only 50 people.

During this new recruitment phase, Leader B and other people were in charge of the process. Twenty new members joined as part of this recruitment. Twelve of them remained active in the group until Phase IV because of strong fraternal relationships between themselves and Leader B, the recruiter when they joined the group. The other new members, 4 traders and 1 laborer, became inactive members.

Most members could repay the loan, although some of them could not. One factor influencing this situation was the increasing cost of living due to the economic crisis. Near the end of this program, the transition process began. The group members conducted an evaluation at the end of the program. In 1997, the group prepared to receive new aid and there was a leadership succession. The new leader, who replaced Leader B, was the treasurer of the group during Phase I. He had significant experience in the group although he was not a native of Kadipaten Village. He had connections with many local government officials and he was responsible for the group receiving aid from the local government. There was no conflict at that time because the current leader and the members were aware of his advantage. At that time, the power of Leader A decreased because he had a night job as a security guard at a sugar factory in Kadipaten Subdistrict. However, he remained active and had some sheep in the group.

Phase III (1997-2002): The next aid came from the livestock office (*Dinas peternakan*) and was known as UPSUS Aid (*Upaya khusus* or Special Effort). The UPSUS aid is credit given to the group with 0% interest that has to be repaid in three years. Therefore, 2002 was the last year to repay the credit because the UPSUS aid was given in 1999. The allocation of aid was approximately IDR 3,600,000 per member for a total of about IDR 500,000,000.

At that time, the number of group members had increased to 69 because of the villagers' interest in government aid. When the aid was first distributed, the group members were divided into several smaller groups to facilitate aid distribution. Job distribution occurred at this time because a large amount of input was needed. For example, each small group was instructed to gather grass for livestock feed. They often went far from the group's location to gather the grass because the grass stock near the stall was limited. Some group members sold their sheep to meet economic needs or to buy luxury items. However, others still depended on raising livestock for their livelihood.

There was a conflict during this phase. New bias recruitment took place more clearly than in Phase II. The presence of free riders in the group provoked a conflict between the loyal members and the free riders. The loyal members were jealous that the free riders could easily enter the group and receive the loan. Leader A blamed Leader C (the leader in Phase III) for this unexpected situation. On one hand, Leader C was very good at mediating the relationship with the donor institution, but on the other hand, he was too quick to accept the aid and recruit new members. In contrast, Leader A was very strict and had a difficult time maintaining bonds within the group.

From 2002 to 2005, the group did not accept any aid and did not cooperate with outside agencies. Leader C was still the leader during this phase, but another member carried out the tasks of managing the group.

Phase IV (2002-2009): In 2006, the group received aid from the village government. The system of aid was like the aid in Phase I and the amount of aid was one mother sheep per member. One male sheep was placed in the leader's stall. In addition, the group's active members and the leader agreed that the membership should be revitalized and the number of members should be reconsidered because many members were no longer active. Therefore, 19 inactive members from the Phase III group and 8 inactive members from the Phase II group were excluded from the group's membership. In addition, two members had passed away among the Phase I group and Leader C was no longer in the group because of the conflict and because of his age. The group now had 39 members. The young new leader (Leader D), a sheep trader, replaced the old leader. This group continued until 2009.

Group change process analysis: Throughout the group's history, it has experienced four periods of change in the group size. To simplify the explanation, the term Phase I group is used for Phase I membership, Phase II group is used for the new members in Phase II, Phase III group is used for the new members in Phase III and Phase IV group is used for the membership in Phase IV (Fig. 4).

Table 3 shows that the Phase I group has experienced four phases in the group's life, that is, from

Table 3: Active and inactive members in each phase

	Phase I Group				Phase II Group			Phase III Group	
	I	II	III	IV	II	III	IV	III	IV
Active members	30	30	30	27	12	12	12	0	0
Inactive members	0	0	0	1	8	8	8	19	19
Total	30	30	30	28	20	20	20	19	19

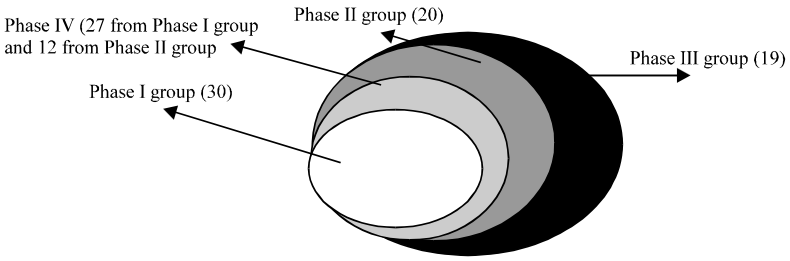

Fig. 4: Change process of group membership structure

Table 4: Path weight of the factors that influence motivation[2]

	Phase I	Phase II	Phase III	Phase IV	Average
Internal factors to motivation	0.434	0.401	0.419	0.602	0.464
External factors to motivation	0.357	0.112	0.055	-0.089	0.109
The role of the leader to motivation	0.193	0.465	0.482	0.378	0.380
Motivation value	2.44	2.13	1.73	2.27	2.14

This value is the path weight of each exogenous variable to motivation. $\alpha = 0.05$ The value of motivation is mean value of interval scale of all group in four phases

Phase I to Phase IV. However, in Phase IV, the active members from Phase I decreased by three people; two of them died and one of them, Leader C, became inactive. The final membership in Phase IV came from the Phase I group (27 people) and the Phase II group (12 people). No members from the Phase III group were still in the group.

Change of member motivations in group: From the average values in Table 4, it can be seen that internal factors and the role of the leader have a significant influence on the motivation of members (46.4 and 38.0%).

In Table 4, it is evident that the internal factors contribute most significantly to member motivation. This contribution can be determined from the average of the path weight from the independent factors to member motivation. Other influencing factors are the role of the leader and the external factors. These factors can be explained by the change motivation process in each phase's subsection.

Table 4 shows that motivation is a dynamic factor. There is a decrease in member motivation from Phase I to Phase III, but there is an increase again in Phase IV. The mean value of motivation in Phase II is slightly lower than the mean average value. There are several reasons for this condition.

First, the Phase I group has a lower motivation score than the Phase II group. The members of the Phase II group had greater motivation to join the group because of their intensive communication with the informal group leader who selected them to join the group. The motivation was not internally produced. In contrast, the Phase I group had high intrinsic motivation. As noted in the group's history, the Phase I group comprised former members who realized that sanitary housing is very important for families; therefore, they moved the stall from a nearby house to another location far from the housing. This move showed their intrinsic motivation; the group was formed to increase both their welfare and their health.

Second, the economic crisis situation influenced the supply and demand of the regional and local sheep markets and the demand for sheep decreased. This condition made the members less hopeful. In addition, the daily cost of living increased, making life more difficult for the members. Therefore, some members sold their sheep. This condition also affected the Phase I group, but they had capital to manage that problem. Their communication network was already formed and they had experience participating in sheep contests. Therefore, when they participated in and won contests, they could earn enough money for their families.

Table 4 also shows that Phase III experienced the peak of motivation which decreased in the next phase. Many free riders with low motivation caused the group's motivation to deteriorate. In addition, the conflict between Leader A and Leader C over how to recruit new members exacerbated the group's condition, despite Leader C's many efforts to increase group activity in the beginning of phase, such as group meetings and "Arisan".

Table 4 suggests that there is a core group that has helped the group survive. Even when the group suffered from decreasing motivation, it was able to survive and modify its form. This survival showed that there is a nucleus in the group. Table 5 shows that the Phase I group is the core group that helped the group survive. Although some external factors after Phase I had a negative impact on this group, internal factors made them

[2]The regression weight used in this analysis is the beta coefficient or standardized coefficient because the main purpose of the research is to determine which factor has the most significant influence on the dependent variable (Ghozali, 2001). Therefore, when the beta coefficient is used, it is not necessary to present the R-multiple determinant (which comes from the unstandardized coefficient or B) and the R-square.

Table 5: Path weight of the factors that influence motivation of phase I group in four phases

	Phase I	Phase II	Phase III	Phase IV	Average
Internal factors to motivation	0.434	0.561	0.450	0.773	0.556
External factors to motivation	0.357	-0.053	-0.065	-0.073	0.004
The role of the leader on motivation	0.193	0.409	0.481	0.262	0.336
Motivation value	2.440	2.320	2.140	2.280	2.300

This value is the path weight of each exogenous variable on motivation. The value of motivation is the mean value of the interval scale of the Phase I group in four phases

Table 6: Path Weight of Factors in Each Phase

	Phase I	Phase II	Phase III	Phase IV
Loading factor of age of member as internal factor	-0.002	0.220	0.185	-0.033
Loading factor of informal education as internal factor	-0.060	0.241	0.272	0.168
Loading factor of sheep herding experience as internal factor	0.727	0.914	0.932	0.882
Loading factor of income stage as internal factor	0.457	0.282	0.119	0.026
Loading factor of BAU aid as external factor	0.990	-	-	-
Loading factor of extension intensity as external factor	-0.055	0.816	0.763	0.703
Loading factor of local government aid as external factor	-	0.343	0.465	0.672
Loading factor of the role of the leader in reaching the goal	0.870	0.738	0.745	0.786
Loading factor of the role of the leader in fulfilling needs	0.678	0.436	0.542	0.284
Loading factor of the role of the leader in creating value	0.698	0.669	0.737	0.548
Loading factor of the role of the leader in facilitating relationships	0.551	0.689	0.769	0.678
Loading factor of the role of the leader in resolving conflict	0.431	0.740	0.710	0.324

$\alpha = 0.05$

strong enough to manage the group's deterioration and maintain their motivation. Table 5 shows that the motivation for membership in the Phase I group was constant which is a very important fact because these members chose to remain in the group and lengthen the group's life. The internal factors are explained further in the following subsection, based on Table 6.

Change of member motivation process in phase I: Table 6 shows that members' income stage and sheep herding experience have a dominant influence as internal factor indicators. Increasing income caused by the sale of Garut sheep became the motivation for the Phase I group to expand their welfare through the group's activity. As noted previously, Garut sheep that won fighting contests were worth more money, sometimes up to three times their former price. However, raising and training good sheep for contests requires experience and special skills. The Phase I group had more experience than the other groups.

The aid from Bogor Agriculture University (BAU) is the most significant external factor. The system of sharing the aid and the respectful personality of the officer had a positive impact on the psychology of the members. The members were more motivated to take care of the sheep and to be more productive and the members' trust in the supervision of the group increased.

In terms of the intensity of extension, the members felt few extensions that the group accepted from the extension office. The leader's role in helping the members reach their goals had a dominant influence. Group meetings provided many solutions to technical problems faced by the members.

The BAU officer, helped by the leader, carried out the aid program by conducting intensive group meetings to establish good relationships among all parts of the group. This activity delivered large amounts of information to members and created many understandings, agreements and solutions to problems. The members' high motivation to join the group, as shown in Table 4 and 5, pushed them to actively accept a large amount of informal education from the BAU officer in the BAU aid program. It also made the atmosphere of the group more conducive to members' interactions. Gradually, a communication network pattern formed in the Phase I group.

Change of member motivation process in phase II: Table 6 shows that during Phase II, experience in sheep herding was still a significant internal factor for member motivation. When the BAU aid and supervisory assistance ended, their experience became the means to expand the group's productivity, including preparing for sheep contests. The income stage also remained significant. Although there was more informal education in the group, the motivation itself decreased because the economic crisis occurred during Phase II. Because of this contradiction, statistically, the influence of informal education on member motivation is quite low.

The external factors of local government aid and the intensity of extension are not significant factors for member motivation. The intensity of extension was supported by the aid package, but the influence on member motivation was low because the influence of the BAU aid in Phase I significantly influenced Phase II. In addition, the economic crisis made the members less motivated to keep sheep.

After the BAU aid ended, Leader B became the one that made any changes in the group. He continued to use the group meetings as a means for group discussions and facilitated the acceptance of new aid from the local

government. However, after the aid ended, he gave his position to another person who had advantages in skill and knowledge and who became the leader in Phase III. Leader B's actions prevented conflict in the group.

Change of member motivation process in phase III: Many new members became inactive but the members in Phase I were able to maintain their motivation to stay in the group, as shown in Table 5. Their experience in raising sheep and profiting from selling sheep and from sheep contests could encourage them to remain active in the group. However, the free riders became inactive and then became ex-members after the aid was finished. Table 6 clearly shows this condition. The increasing income from sheep sales was not considered sufficient for those with low income and it was not considered high enough for those with high income, such as retired public servants and factory staff. Therefore, their motivation decreased, as shown in Table 4.

The government aid and extension intensity became insignificant factors. These factors deteriorated the group's condition when there was corruption in the delivery of the aid. In Phase III, the active members, especially the Phase I group, felt that the BAU aid was of better quality than the local government aid. The motivation from Phase I kept them active in the group, even though some conflicts, such as the conflict between Leader C and Leader A over member recruitment, made the situation in the group worse.

As in Phase II, during Phase III, Leader C made significant changes in the group. The most significant role in this phase involved creating value and reaching goals. Leader C tried to enforce group meetings and "arisan". He also tried to distribute the jobs searching for grasses to smaller groups of members because the number of members had increased significantly as a consequence of the new aid. This distribution seemed effective at the beginning of the phase, although the conflict in the group later deteriorated the group's condition.

Change of member motivation process in phase IV: The member characteristics in Phase IV were not different from Phase III, but there was a decrease in the number of members. All inactive members from Phase II and Phase III were excluded from the group. The lack of external cooperation in Phase III and the conflicts among the leaders caused this condition. However, the active members from Phase I and Phase II were still active in the group and had accumulated experience in taking care of sheep, as shown in Table 6.

The result of the group's experience in earlier phases was a difference between the perceptions of members about BAU aid, on one side and local government aid and extension, on the other side. The agricultural extension officer was a poor model for the members and created a moral hazard when he corrupted the aid activities.

The active members' motivation to revitalize the group after the experience of previous phases was a significant factor in this phase. There was a resurrection of member motivation after it decreased in Phase III. Leader C's role in reaching the group's goals helped the members revitalize the group. They evaluated the advantages and disadvantages of the previous phases and reinforced the positive activities, such as group meetings and only accepting aid with shared results before accommodating and accepting aid from the village government.

CONCLUSIONS AND RECOMMENDATIONS

The Mekar Jaya group has experienced four phases. Its members' motivation decreased from Phase I to Phase III, but it increased slightly in Phase IV. This finding suggests that group motivation is a dynamic factor that influences members' decision to remain in or to leave the group. Three factors significantly influence the motivation to become group members. These include internal factors, external factors and the role of the leader. Internal factors have the strongest influence on member motivation.

In conclusion, there is one value that kept members active in the group: the cumulative experience in sheep herding which was strengthened by informal education as part of external aid, especially in Phase I. This value became the fundament of the group. The leader's role is another factor that contributed to the process of change in the group. It supported the group by managing their five of leader roles.

The Phase I group which consisted of members who were in the group from Phase I to Phase IV, was the nucleus of the group. This group had an important role in supporting the group's sustainability and was a source of the group's leaders. Leaders A, B, C and D came from this group. The experience, skill and knowledge of this group became important factors in choosing them as group leaders.

It would be worthwhile for future studies to examine more deeply the group dynamics, group process and group communication patterns as ways to resolve conflicts. In-depth study of these factors can contribute to a comprehensive explanation of the group process.

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APPENDIX

Table A1: The measurement of internal factors

Variable	Indicators	Grade
Internal factor	Formal Education	Low if graduated from elementary school
		Medium if graduated from junior high school
		High if graduated from senior high school
	Informal Education	Low if participated less than twice
		Medium if between twice and four times
		High if more than four times
	Experience in Sheep Herding	Low if less than 5 years
		Medium if between 5 and 10 years
		High if more than 10 years Income Stage of Member
		Low if less than IDR 400,000
		Medium if between IDR 400,000 and IDR 600,000
		High if more than IDR 600,000

Table A2: The measurement of external factors

Variables	Indicators	Parameter
The aid of BAU	The system of aid	Members know that there is aid
	The amount of aid	Members know about the system of aid
	Attitude toward the aid	Members know about the amount of aid
	The sustainability of aid	Members' attitudes toward the aid
		Members know about repaying the aid
		Members know about the assistance of aid
The aid of	The system of aid	Members know that there is aid
local government	The amount of aid	Members know about the system of aid
	Attitude toward the aid	Members know about the amount of aid
	The sustainability of aid	Members' attitudes toward the aid
		Members know about repaying the aid
		Members know about the assistance of aid
Agricultural	The frequency	Members know about the extension of extension frequency of extension intensity
	Kind of extension material	Members know about the kind of extension material
	Attitude toward the extension	Members' attitudes toward the extension

Table A3: The Measurement of the Role of the Leader

Variables	Indicators	Parameter
The role of helping members to reach goals	Direction of the activity	The members know the direction of activity
	Explanation of the direction	The members understand the direction
	Pioneering the implementation	The members follow the leader's implementation of the activity
The role of creating group value	The closeness of group members to the leader	The members know how close they are to the leader
	The agreement of the members and the leader about the value of the group	There is interaction and dialogue between the leader and members
	The members' acceptance or suspicion of the leader	The members accept or reject the value
The role as the members' representative	How well the individual can interact with people outside the group	The members feel that they need someone else to communicate with another group member
	Encouraging a good relationship between the two groups	The members know that the leader has always encouraged a good relationship between the two groups
The role as conflict facilitator	The frequency with which the leader is called upon to mediate conflicts between members	The members know how many times the leader tried to mediate the conflicts
	The leader's way of mediating conflict	The members know how the leader mediates the conflict

Table A4: The measurement of motivation for becoming a group member

Indicator	Parameter	Statement
The awareness of living in a group	Need to socialize other people	I need one or many friends to with alk about many problems
	Believe that living in a group is better	I can get it from the group
To achieve high skill and knowledge in taking care of sheep	Taking care of sheep requires more skill and knowledge	Taking care of sheep requires more skill and knowledge
	Goal can be reached in a group	I can reach this goal in a group
Responsibility for a better life for himself and his family	Awareness that self and family life must be improved	I am aware that my family has many primary needs to be satisfied
To gain economic profit from group activity	I think that taking care of and selling sheep is profitable	I am aware that my life and my family's life must be improved
	I can get more in a group	I think that taking care of and

Table A4: Continued

Indicator	Parameter	Statement
selling sheep is profitable		
Environment that may influence the decision to become a group member	Persuasion from the leader	I can get more in a group
	Persuasion from friends	I want to be a member because of persuasion from the leader
	Bandwagon	I want to be a member because of persuasion from friends
		I want to be a member to be on the bandwagon

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