

Analysis of Communication Effectiveness of Rubber Farmers in Riau Province, Indonesia

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Abstract—Communication is an important part of the development process. Therefore effective communication is needed to achieve development goals. Rubber is the second leading commodity from Riau Province, after oil palm, and most rubber commodities are managed by independent rubber pattern farmers. The success of this rubber farming development to increase the income and welfare of rubber farmers requires effective communication to achieve these goals. The purpose of this research is; (1) describe the internal and external characteristics of rubber farmers; (2) analyzing the effectiveness of rubber farmer communication; (3) analyze the relationship between characteristics and effects of communication on rubber farmers. The study was conducted in two potential districts for rubber commodities in Riau Province, namely Kuantan Singingi Regency and Kampar Regency. Respondents in this study were determined by purposive sampling and random sampling methods, with several respondents 143 rubber farmers. The results showed (1) internal characteristics and external characteristics of rubber farmers in the quite supportive category; (2) The effectiveness of interpersonal communication is in the effective category, while the effectiveness of group communication is in the quite effective category; and (3) The role of the government through extension workers is needed to improve the effectiveness of communication with farmer groups, because farmer groups are important institutions for agricultural development.

Keywords—communication effectiveness, group communication, interpersonal communication

I. INTRODUCTION

Communication is the process of delivering messages from one person to another [1] [2][3][4]. Communication is the process of delivering messages from one person to another. Effective communication, if the delivery of the message from the sender to the recipient, followed by feedback from the recipient to the sender of the message indicating that the recipient of the message understands the message delivered by the sender [5]. Communication has an important role in changes in the organization [6]. A sense of concern, discomfort, a sense of togetherness, need to be considered in communicating to create the desired change.

Motivating members for the importance of change and a sense of profit in the organization can motivate members to participate in the planned changes and their implementation [7].

Data from the Central Statistics Agency of Riau Province in 2017 regarding the level of production and area of rubber regency in Riau, shows the land area and the amount of rubber production has decreased. The decrease in land area and the amount of rubber production can be caused by various factors, one of which is due to the lack of effective communication of farmers in conducting self-help rubber farming. Rubber productivity produced by farmers in running rubber farming has not fully applied the knowledge they got from extension agents.

According to Shonubi and Akintaro (2016) [8] the communication function is a function of social communication; business communication function; information dissemination function, development communication function, and intercultural communication function. Effective communication conveys the message and the intent of the communicator to the communicant, so that the communicant understands the message, although there are certain differences between the communicator and the communicant [9]. Effective communication is two-way communication [10].

This research aims to analyze the level of effectiveness of the communication of independent rubber farmers in the scope of Riau Province. Knowing the level of effectiveness of communication between independent rubber farmers and self-help will become a benchmark for extension agents and the government to innovate or deliver messages to be effective. So that it is hoped that independent rubber pattern farmers can understand information and apply the knowledge gained in the cultivation of rubber plants which they manage to increase the amount of production and standard of living of farmers.

II. METHODOLOGY

This research was conducted in Kampar Regency and Kuantan Singingi Regency, Riau Province by taking farmer respondents who are members of farmer groups who are still

active in the last 5 years. The choice of location is based on the consideration that it is an area that has the highest number of self-supporting rubber plantation plantations in Riau Province and is an area that has active rubber farming groups in the last 5 years. This research was conducted from July 2018 to March 2019.

This research method uses survey methods through direct and in-depth interviews with respondents with questionnaire guides that have been prepared previously. The sampling technique used in this study is the purposive sampling method. The purposive sampling method is a sampling technique with certain considerations or criteria adjusted to the research objectives. To represent the population, 143 samples of self-help rubber farmers were taken, who are rubber farmers who are members of groups and are still active in rubber plantation extension activities for the past 5 years.

Summated Likert Rating (SLR) scale and descriptive analysis are used to answer the research objectives of knowing the internal and external characteristics of respondents and analyzing the level of effectiveness of self-help rubber farmers' communication. The Spearman Rank Correlation Method is used to determine the relationship between internal and external characteristics of rubber farmers in self-help patterns to the level of communication effectiveness in Riau Province.

III. RESULT AND DISCUSSION

A. Internal Characteristics of Rubber Farmers

The age distribution of rubber farmers in Riau Province is almost entirely in the productive age group, namely 138 farmers and 5 other farmers are in the unproductive age. The education level of the most respondents farmers was in middle and high school graduates totaling 88 people (61.5%). Whereas, there were 45 graduates (31.5%) graduating from elementary school and not graduate and 10 from diploma dan bachelor (7%). That the number of dependents distribution of the respondent farmer families is dominant in the group of 3-4 person dependents, as many as 77 people with a percentage of 53.8%. Meanwhile, the distribution of family dependents for 5-6 people is 15 people with a percentage of 10.5% and the distribution of family dependents 1-2 people is 51 people with a percentage of 35.7%.

The experience of rubber farming in the majority of respondents in the range of 3-17 years as many as 81 people (56.6%). Meanwhile, farming experience 18-32 years as many as 57 people (39.9%), and farming experience 33-47 years as many as 5 people (3.5%). The distribution of most of the respondent's farmers based on the area of land ownership is in the category of medium land, which are farmers who own land of (0.6 Ha-2 Ha) of 113 people or 79%. Meanwhile, farmers who have the land area in the narrow land category are farmers who have a land area of (0.5 Ha) as many as 14 people or 9.8% and farmers who have the land area in the area of land area of (> 2 Ha) as many as 16 people or 11.2%. The rubber farmers' cosmopolitan in Riau Province is in the low category with

an average score of 1.65. This shows that rubber farmers in Riau Province are less active in reading information about rubber farming through mass media such as newspapers, magazines, the internet, YouTube, official sites and others.

B. External Characteristics of Farmers

The Extension intensity of farmers in Riau Province was carried out quite well. It can be seen from the score of 2.19 in the medium category, the extension intensity in Kampar District, which is extension agents rarely do direct extension. The accuracy of the extension program for rubber farmers in Riau Province is included in the medium category with an average score of 2.09. It shows the communication channel with a direct method (lectures and discussions) is in the medium category with a score of 2.01 or considered as quite good by some farmers. And seen from the accuracy of the target of the extension communication channel also in the medium category with a score of 2.17 or considered less precise by some farmers.

The number of sources of information obtained by rubber farmers in Riau Province on rubber farming is in the medium category with an average score of 2.03. The average amount of rubber farming information received by farmers is 3 out of 4 pieces of information. Information obtained by farmers in the form of materials related to production facilities (seeds / seeds, fertilizers and pesticides, coagulation and stimulants latex, equipment), cultivation (planting and planting distances, plant maintenance, tapping techniques, how to make shade shelters / rain guard), marketing (latex sales systems and market prices) and supporting institutions (farming groups and government policies). Some farmers lack knowledge of marketing information, which is pricing. Because the full pricing is still in the hands of the wholesaler. Farmers who sell their crops to the auction market can only choose which wholesaler places a higher price on their rubber but farmers do not have the ability to set prices.

C. Communication Effectiveness

The success of an organization to achieve its goals is determined by effective communication, in addition to the method of communication, effectiveness, and suitability of communication channels also determine [11]. Effective communication with leaders who can motivate members to participate in the organization has a major impact on a business or organization [12].

Group communication effectiveness

In an institution, the role of communication is to bridge the relationships between people within the institution and to build an environment that is favorable for the institution's development [9]. Communication, group dynamics, and teamwork are important components for achieving group effectiveness [13]. Improving communication between leaders and members will make a leader more effective [12].

The rubber farmer communication effectiveness in groups is seen from four subsystems namely the upstream subsystem, on-farm subsystem, downstream subsystem and

supporting subsystem. It can be seen in the following Table 1.

TABLE 1. THE LEVEL OF RUBBER COMMUNICATION EFFECTIVENESS BETWEEN GROUP RUBBER FARMERS IN RIAU PROVINCE

Aspect	Cognitive	Affective	Conative	Average	Category
Upstream Subsystem	2.17	2.50	2.20	2.29	Quite Effective
Cultivation subsystem	2.02	2.31	2.08	2.14	Quite Effective
Downstream Subsystem	2.11	1.14	2.14	1.80	Quite Effective
Supporting Subsystem	2.21	2.19	2.03	2.14	Quite Effective
Average	2.13	2.04	2.11	2.09	Quite Effective

Based on the table, it can be seen that the farmer communication effectiveness as a group is in the quite effective category with an average score of 2.09. The group communication effectiveness in the upstream subsystem is in the quite effective category with an average score of 2.29. The group communication effectiveness on the on-farm subsystem is quite effective with an average score of 2.14. The group communication effectiveness in the downstream subsystem is in the quite effective category with an average score of 1.18. And the group communication effectiveness in the supporting subsystems is in the quite effective category with an average score of 2.14.

The communication effectiveness is in the quite effective category because it is seen from the cognitive, affective and conative effects on rubber farmers. In the upstream subsystem, the on-farm subsystem and the supporting subsystems of rubber farmers in Riau Province obtained information in group communication from a meeting of extension agents, group leaders and farmer groups or farmer groups combined management. Whereas in the downstream subsystem, farmers obtain information in group communication from meetings with the EMFTAS (Economic Movement Forward Tanjung Alai Society) or the auction market committee and the wholesaler auction market.

The information delivered by the extension agents is good enough, but the method of delivery is not supported by direct demonstration or no direct product pilot. As well as the intensity of extension meetings with farmers that are low/sparse, extension agents only hold group meetings when provide replanting seedlings and agricultural machine tools. As for the evaluation, the instructor contacts the chief/secretary of the farmer group via handphone. However, in Kuantan Singingi District, extension agents conduct counseling activities once a week if the weather conditions are good. If the weather is not good, counseling held once in two weeks.

Then seen from the cognitive effects, farmers' knowledge is sufficiently increased by the existence of extension workers, but farmers do not understand the information in detail. Farmers know and understand quite well in the upstream subsystem. Such information includes seeds/seedlings of good rubber plants, appropriate fertilizers for plants, good latex stimulants, environmentally friendly

pesticides, coagulants that provide good quality latex and rubber tapping equipment that supports rubber cultivation activities. The knowledge that farmers have about cultivation subsystems is good enough. Farmers have learned about land clearing, seed selection, planting distance, seed planting, caring for mature plants, fertilizing, tapping techniques, collecting latex and using stimulants. Farmers already know and understand the information in the downstream subsystem. Information on the downstream subsystem includes information on the location of latex sales with high prices and a good place to store latex and how to process latex. Farmers already know and understand information on supporting subsystems. Information on supporting subsystems including easy and reliable loan facilities, benefits and functions of cooperatives as well as benefits, functions, and activities of farmer groups.

Affective effects, farmers have an interest in finding out more information and they assume that information is following their needs. However, because the way of delivering the information is still difficult to understand, farmers think that information is quite difficult to apply in their farming.

The conative effect, most farmers implement the information that is not following the theory delivered by the extension agents and only some farmers decide to apply the information and be sustainable in their farming. Group communication is less effective so farmers are more active in interpersonal communication to people they believe have the information needed such as traders, farmer secretaries, and fellow farmers. Quality effective communication needs to have completeness, conciseness, consideration, truth, politeness, clarity, concreteness. For successful communication in groups, there needs to be openness in it [14].

Interpersonal Communication Effectiveness

Interpersonal communication is the delivery of messages by one person and the receipt of messages by another person or a small group of people, with various impacts and with opportunities to provide immediate feedback.

The effectiveness of interpersonal communication contributes greatly to improving one's workability and productivity [15]. Successful interpersonal communication is one of the successes of effective communication of organizations or groups, in addition to gathering information and using appropriate information and communication technology. Through interpersonal communication between group members can share information and knowledge can improve group dynamics and help make efficient decisions [16].

The interpersonal farmer communication effectiveness in this research is humanistic aspects that can create the accuracy of interpersonal communication. This communication will result in changes in opinions, attitudes, and actions. The communication effectiveness includes openness, empathy, supportive attitude, positiveness, and equality.

To find out the farmer's communication effectiveness indicators are needed to measure it. High or low communication effectiveness can be known from the score

or assessment of the responses or answers given by respondents from various questions based on the variables used. The communication effectiveness is divided into three categories, namely effective, quite effective, and ineffective.

TABLE 2. THE LEVEL OF INTERPERSONAL COMMUNICATION EFFECTIVENESS OF RUBBER FARMERS IN RIAU PROVINCE

No	Communication Effectiveness	Score	Category
1.	Openness	2,34	Effective
2.	Empathy	2,32	Quite Effective
3.	Supportive attitude	2,31	Quite Effective
4.	Positiveness	2,43	Effective
5.	Equality	2,29	Quite Effective
Total Score		11,69	
Average score		2,34	Effective

Based on the table shows that the level of the interpersonal communication effectiveness of rubber farmers in Riau Province is in the effective category with an average score of 2.34. That is because the variables of openness and positiveness are in the effective category while in the variables of empathy, supportive attitude and equality are in the quite effective category.

In the empathy variable, supportive attitude and equality are in the quite effective category with an average score of 2.32; 2.31; and 2.29. Farmers have a fairly good sense of empathy, shown by only a small proportion of farmers who can get to know other farmers better and have a feeling of mutual need with other farmers. While there are some other farmers who find it difficult to get to know members of the group well, it is due to several things as follows: (1) The number of farmers who are members of the farmer groups in particular (farmer groups combined) is always changing, some are out there are also new ones entering. (2) the low intensity of meetings due to members who are members of farmer groups from farmers outside the village. (3) Incorrect intentions when joining farmer groups such as only to get government assistance, resulting in low attendance at farmer group meetings. The supporting attitude of the farmer is quite good which is shown by only a part of farmers who are willing to accept the warning with supportive, react frankly to the achievements of other farmers and are willing to hear different opinions with him. Whereas in terms of equality, farmers are at a different level and in general farmers with low levels of education are more passive in conducting internal communication, because farmers feel less confident.

The openness and positive attitude variables are in the effective category with average score of 2.34 and 2.43. Farmers are open in sharing information about themselves. Communication will be effective if the communicator and communicant know each other personal information. The openness is illustrated by the freedom of farmers in submitting their opinions in forum meetings or gatherings. While the positive attitude of farmers is shown by the attitude of farmers in respecting others (communicators) who provide information, farmers give praise to the

achievements of other farmers (communicators) and respond positively to the other's strength. This can be described as follows.

IV. CONCLUSION

Internal characteristics of rubber farmers 96.5% of productive age (15-65 years); 61.5% is a high-school education; number of dependents between 1-6 people (53% of dependents 3-4 people); 56.6% of farmers have experienced 3-17 years; 79% land ownership area > 0.5 - 2 ha; and the respondent's cosmopolitan level is low. External characteristics in the aspects of the extension intensity, the extension accuracy channel and the number of information sources in the medium category.

The group communication effectiveness is in the quite effective category (both from the cognitive, affective and conative aspects). The interpersonal communication effectiveness is in the effective category, from the openness and positiveness aspect is in the effective category, while from the empathy aspect, supportive attitude and equality is in the quite effective category.

The role of the government through extension workers is needed to improve the effectiveness of communication with farmer groups, because farmer groups are important institutions for agricultural development. Many government and private programs in order to increase the income and welfare of farmers, to achieve the goal need effective communication in groups of farmers.

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