



THE ROLE OF AGRICULTURAL INFORMATION ON THE PRODUCTIVITY OF ARABICA COFFEE FARMERS (Case: Sait Buttu Saribu Village, Pematang Sidamanik District, Simalungun Regency)

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Abstract

The purposes of this study is to determine the role of agricultural counselor on the productivity of Arabica coffee farmers and to find out the obstacles faced by agricultural counselors in providing information concerning the productivity of Arabica coffee farmers in Sait Buttu Saribu Village, Pematang Sidamanik District, Kabupaten Simalungun. The research location chosen deliberately with two considerations, where the Desa Sait Buttu Saribu is one of the centers for Arabica coffee production and counselor activities. The method of determining the sample in this study used simple random sampling with the research sample were farmers who participated in counseling activities. Data analysis was carried out by means of Likert scale and descriptive analysis. The results showed that the role of agricultural counselor workers as dynamists and facilitators was in the category of important role, while the role of counselor workers as motivators was in the category of very important role and the constraints faced by agriculture counselor in extension activities were that farmers did not participate in counseling activities and there are inadequate facilities and infrastructure.

Keywords: The Role of Counselor Workers, Productivity, Likert Scale

1. Introduction

In Indonesia, agricultural development is directed at increasing agricultural production in order to expand employment opportunities, increase exports and farmers' income, encourage equity and meet domestic food and industrial needs. However, the role of the agricultural sector may not necessarily be able to contribute to the largest Gross Regional Domestic Product (GDP) for some regions, but for some regions, agriculture provides the largest contribution to GRDP.

Arabica coffee production in Indonesia can decrease because Arabica coffee plants can be easily attacked by pests and diseases, for example, leaf rust disease. The disease can attack arabica coffee plants in the lower plains. Arabica coffee is coffee that has the highest market demand in the world reaching 85% (Muzaifah, et al., 2016).

In agricultural development there are still many obstacles caused by several factors. These obstacles make it difficult for farmers to develop, to overcome these obstacles, the government has formed an institution that can be called an agricultural extension. The extension worker is a facilitator who is able and can help the community so that the community is willing to participate in farming activities, provide support to farmers, people who are able to hear and understand the aspirations of farmers, and are able to provide facilities to farmers.

Counseling is very important to be given to rural communities because of the conditions and situations in rural areas that really require extension activities as a form of non-formal

school. With the extension, it is hoped that it can increase the dignity of the farming family community. Agricultural extension workers focus their eyes on people (communities) who are involved in life in agriculture. Agricultural extension wants a change in people and communities who work in agriculture, so that they want to make changes in their way of thinking, working, attitude and way of life towards the welfare and progress of farmers.

Agricultural extension workers have a tough task in empowering farmers to increase productivity to the maximum but must still be carried out seriously. Several programs and assistance have been provided and established to farmers to assist farmers in improving their farming progress. The Ministry of Agriculture also assists in issuing policies to increase productivity by replanting damaged crops, intensification, and rejuvenation of old and unproductive coffee plantations, increasing the People's Business Credit (KUR) facility for coffee farmers. The Ministry of Agriculture is also trying to improve the quality for Arabica coffee production.

The purpose of agricultural extension workers is to produce competent human resources for agricultural development actors so that they are able to develop strong agricultural businesses, make farming more profitable (better businesses), live more prosperously, farm better (better farming) and the environment. healthier. Human Resources (HR) that need to be developed include the human resources of the agricultural community (agricultural entrepreneurs, agricultural traders and also farmer-fishermen), so that the capabilities and competencies of the agricultural community can be more advanced and increased because they are the ones who directly carry out all agricultural business activities on their farm land. Sunandar (2019) states that the role of the instructor is as a dynamist, facilitator and motivator.

Puspadi (2010) states that productivity is a measure of how well a resource is utilized and managed to achieve the desired results. Productivity is a ratio between output to resources used in managing an activity. If only certain factors are counted as inputs, it is called partial productivity, if in this ratio the inputs used to produce outputs are calculated entirely, it is called total productivity.

In this case, the extension agent is expected to be a liaison in efforts to mobilize human resources as an increase in agricultural production and productivity as well as the basic capital for agricultural development. Productivity essentially includes the attitude of farmers who have the view that the method of work carried out today must be better than the method of work carried out yesterday, and the results of agricultural products obtained tomorrow must be more or of better quality than the results achieved today. this. Extension activities can help farmers in terms of increasing farm productivity carried out by farmers and farmers

are expected to understand how to cultivate and maintain their farms so that the expected productivity can be achieved.

2. Research methods

The research was conducted in Sait Buttu Saribu Village, Pamatang Sidamanik District, Simalungun Regency. The distance from the city of Medan to the research location is ± 157.8 Km.

The total population, namely Arabica coffee farmers who participated in extension activities or joined in farmer groups, was 265 people. The technique used in sampling is probability sampling, which is a sampling technique that provides equal opportunities/opportunities for each element or member of the population to be selected as sample members. The method of determining the sample used in this study is simple random sampling (done randomly) and the sample can be obtained using the Slovin formula.

Identification of problem 1, analyzed using the Likert scale method in the Role of Agricultural Extension on the Productivity of Arabica Coffee Farmers with the resource persons being Arabica coffee farmers and showing the level of approval measures such as: score 1 does not play a role, score 2 does not play a role, score 3 is neutral, score 4 plays a role, and a score of 5 is very important (Wardah and Setia, 2018).

Identification of problem 2, analyzed using descriptive method with a quantitative approach. Tika (2005) suggests that descriptive research is more directed at revealing a problem as it is and revealing existing facts, although sometimes analysis is given.

3. Results and Discussion

3.1 The Role of Agricultural Extension on the Productivity of Arabica Coffee Farmers

a. The Role of Extension Officers as Dynamizers

Table 1 Test the Validity of Extension Officers as Dynamizers (X1)

Items	Statement	r Count	r Table	Description
X1.1	Extension workers provide guidance to farmers to improve Arabica Coffee productivity	0.615	0.320	Valid
X1.2	Extension workers conduct collaborations/meetings between Arabica coffee farmer groups in extension activities	0.544	0.320	Valid
X1.3	Extension workers make direct observations in the field after providing information about increasing the productivity of Arabica Coffee	0.599	0.320	Valid
X1.4	Extension workers convey information about increasing productivity Arabica Coffee	0.674	0.320	Valid
X1.5	The instructor activates the role administrators and members of farmer groups	0.736	0.320	Valid

Table 1 above shows that the calculated r value for each item is greater than the r table (0.320) so it can be concluded that all items tested using the Pearson Product Moment test are declared valid, so that the level of validity of the measuring instrument used in this study is acceptable. or can be used to measure what it is supposed to measure.

Table 2. Distribution of Sample Answers from Extension Officers as Dynamizers (X1)

Items	STS	TS	N	S	SS	Total	Average	Description
X1.1	0	0	0	24	14	166	4.37	Very important
X1.2	0	0	1	29	8	159	4.18	Important
X1.3	0	0	2	21	15	165	4.34	Very important
X1.4	0	0	3	25	10	159	4.18	Important
X1.5	0	0	7	28	3	148	3.90	Important
Average whole							4.13	Important

The results of this study agree with the research conducted by Sidauruk, et al., in 2016 that agricultural extension workers play an important role as **dynamist**.

b. Role of Extension As Facilitator

Table 3. Validity Test of Extension As Facilitator (X2)

Items	Statement	r Count	r Table	Description
X2.1	Agricultural extension workers help farmers to obtain inputs (means of production) which is good for Arabica coffee plants	0.605	0.320	Valid
X2.2	Extension workers help farmers to get capital	0.692	0.320	Valid
X2.3	Extension workers help farmers to establishing and developing farmer groups	0.380	0.320	Valid
X2.4	Extension workers help farmers to market their coffee production Arabica	0.676	0.320	Valid
X2.5	Extension workers help farmers to cooperate with farmer groups other	0.550	0.320	Valid
X2.6	Extension workers help farmers to take part in trainings held by government or private institutions for the development of coffee plants Arabica	0.653	0.320	Valid
X2.7	Extension workers assist farmer groups in collaborating with government agencies or the agricultural service in terms of providing seeds and fertilizers	0.601	0.320	Valid

Table 3 above shows that the calculated r value for each item is greater than the r table (0.320) so it can be concluded that all items tested using the Pearson Product Moment test are declared valid, so the level of validity of the measuring instrument used in this study is acceptable. or can be used to measure what it is supposed to measure.

Table 4 Distribution of Sample Answers from Extension Officers as Facilitators (X2)

Items	STS	TS	N	S	SS	Total	Average	Description
X2.1	0	0	0	18	20	172	4.53	Very important
X2.2	3	17	18	0	0	91	2.40	Not important
X2.3	0	0	9	25	4	147	3.87	Important
X2.4	5	13	14	6	0	97	2.55	Not important
X2.5	0	0	2	20	16	166	4.37	Very important
X2.6	0	0	1	29	8	159	4.18	Important
X2.7	0	0	9	22	7	150	3.95	Quite important
Average whole							3.69	Important

The results of this study agree with the research conducted by Sidauruk, et al., in 2016 that agricultural extension workers play an important role as **facilitator**.

c. The Role of the Counselor as a Motivator

Table 5. Test the validity of the instructor as a motivator (X3)

Items	Statement	r Count	r Table	Description
X3.1	Extension workers encourage farmers to take part in training held by extension workers/agricultural services on coffee plants Arabica	0.654	0.320	Valid
X3.2	Extension workers encourage farmers to increase coffee production Arabica	0.417	0.320	Valid
X3.3	Extension workers encourage farmers to take part in counseling about Arabica coffee plant	0.568	0.320	Valid
X3.4	Extension workers support farmers so that using Arabica coffee seeds and quality fertilizers	0.521	0.320	Valid
X3.5	Extension workers encourage farmers to stay with the group Arabica coffee farmer	0.627	0.320	Valid
X3.6	Extension workers support activities carried out by farmers, such as the use of fertilizers to increase productivity Arabica Coffee	0.621	0.320	Valid

X3.7	Extension workers encourage farmers to want to use new technology	0.532	0.320	Valid
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Table 5 above shows that the calculated r value for each item is greater than the r table (0.320) so it can be concluded that all items tested using the Pearson Product Moment test are declared valid, so that the level of validity of the measuring instrument used in this study is acceptable. or can be used to measure what it is supposed to measure.

Table 6. Distribution of Sample Answers from Extension Officers as Motivators (X3)

Items	STS	TS	N	S	SS	Total	Average	Description
X3.1	0	0	3	23	12	161	4.24	Very important
X3.2	0	0	2	27	9	159	4.18	Important
X3.3	0	0	2	22	14	164	4.32	Very important
X3.4	0	0	3	11	24	173	4.55	Very important
X3.5	0	0	4	6	28	176	4.63	Very important
X3.6	0	0	4	23	11	159	4.18	Important
X3.7	0	0	5	22	11	158	4.16	Important
Overall average							4.32	Very important

The results of this study agree with the research conducted by Padmaswari, et al., in 2018 that agricultural extension workers play a very important role as **motivator**.

3.2 Constraints Faced by Extension Officers in Extension Activities

a. Farmer Participation

From the results of interviews conducted with agricultural extension workers, it was found that the obstacles faced by extension workers were that farmers did not participate in extension activities where only 50%-70% of farmers attended. Then in carrying out extension activities the time required is not certain because in accordance with the material presented by the extension worker, the farmer also wants concrete evidence of what has been conveyed by the agricultural instructor. Extension activities are carried out at the farmer's house if the information presented is in the form of theories of knowledge and counseling is held in the farmer's garden if the material presented requires practice in its implementation.

b. Extension Facilities and Infrastructure

Facilities and infrastructure are one of the important things in outreach activities. If there are no facilities and infrastructure, extension activities can be hampered and not run as expected. Based on the results of interviews conducted with extension workers in Sait Buttu Saribu Village, the obstacles faced are:

- The road that is traversed has a lot of damage so that this becomes an obstacle for extension workers to carry out extension activities.\

- The production facilities that have been proposed by the extension agent to the agriculture office for the needs of farmers are not met in a timely manner.
- The information delivery media used by extension workers for extension activities still use leaflets and brochures so that the extension process does not run smoothly.

4. Conclusion

The role of agricultural instructors as dynamists and facilitators is in the category of important role, while the role of extension workers as motivators is in the category of very important role. The obstacles faced by extension workers in extension activities are that farmers do not participate in extension activities and there are inadequate facilities and infrastructure.

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