

Analysis of Farmers' Perceptions of the Profile of Agricultural Extension Workers in Padang Lawas District

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Abstract

This study aims to analyze farmers' perceptions of agricultural extension profiles in Padang Lawas Regency. Farmers' perceptions are an important aspect that can influence the effectiveness of agricultural extension and the application of new technologies in agricultural practices. This research uses purposive sampling method with special considerations so that it is feasible to be used as a sample. The number of samples used in this study was 9 people. The variables analyzed include perceptions, the nature of the extension agent, the skills possessed by the extension agent, changes in farming. The results showed that farmers' perceptions of the profile of agricultural extension workers in Huristak sub-district were in the good category, with an average score of 713 with a percentage of 72.02%. Where the highest score was obtained by the sample extension officer Mr. Fahmi Saputra Harahap with a total score of 814 with a percentage of 82.22% where the highest score was in the aspect of farmer assessment of the nature of the extension officer with a total score of 357.8 with a percentage of 72.12% and categorized as good, and the lowest score was in the aspect of changes in farming with a total score of 128.8 with a percentage of 71.55% but still in the good category.

Keywords: Farmer perceptions, Traits of extension workers, Skills, Changes in the farming business.

Introduction

Development in developing countries is generally focused on the agricultural sector to improve the quality of food for its population and to meet national food needs (Setiadhi 2020). One of the Government's efforts to realize the agricultural sector into an advanced sector is by passing Law No.16 of 2006, concerning the agricultural, fisheries and forestry extension system in Indonesia (Indonesia 2006). Agricultural extension workers are people who carry out the task of encouraging farmers to change their old ways of thinking, working, and living with new ways that are more in line with the times, the development of more advanced agricultural technology (Nuraeni 2014). An extension worker must have the spirit of an educator who can cause changes in knowledge, skills, attitudes and skills in the farmers he teaches. In addition, he must have the spirit of a leader who is capable and able to direct the attention of farmers to what he wants and expects, capable and able to move the activities of farmers in a better and more profitable direction, capable and able to provide encouragement and enthusiasm for the work of farmers, utilizing leaders or farmer leaders to develop extension materials (Ali, Saleh, and Tolinggi 2018). Extension workers must also be capable, able to patiently and diligently establish a family spirit with farmers in order to act as advisors who provide guidance and assist farmers in facing and solving problems related to their farming (Mardhiah, Fitri, and Khairunnas 2021).

Development in developing countries is generally focused on the agricultural sector in order to improve the quality of food for its population and to meet national food needs (Muhammad Ilham Arisputra 2015). One of the Government's efforts to realize the agricultural sector into an advanced sector is by passing Law No.16 of 2006, regarding the agricultural, fisheries and forestry extension system in Indonesia.

Agricultural extension workers are people who carry out the task of encouraging farmers to change their old ways of thinking, working, and living with new ways that are more in line with the times, the development of more advanced agricultural technology. An extension worker must have the soul of an educator who can cause changes in knowledge, skills, attitudes and skills in the farmers he teaches (Darmawan and Mardikaningsih 2021). (Pujianti 2020) In addition, he must have the spirit of a leader, namely capable and able to direct the attention of farmers to what he wants and expects, capable and able to move the activities of farmers in a better and more profitable direction, capable and able to provide encouragement and enthusiasm for the work of farmers, utilizing peasant leaders or leaders to develop extension materials (Basri, Yamin, and Dewi 2023). Extension workers must also be competent, able to patiently and diligently establish a family spirit with farmers in order to act as advisors who provide guidance and help farmers in facing and solving problems related to their farming.

In Huristak District, there are ten extension workers who have different individual profile identities. stated that age, education, socioeconomic status, relationship patterns and attitudes are individual factors that influence the innovation diffusion process. (Pujianti 2020) explains that individual characteristics are traits inherent in a person and related to aspects of life, including: age, gender, position, position, social status, and religion. impact on performance. Individual characteristics will make a person behave positively, which means discipline and vice versa, if they are not appropriate, they tend to behave undisciplined. Individual characteristics related to performance are also known as job requirements or person specifications. detailing the person specification as follows: (1) technical competence (technical knowledge and skills), (2) training that has been followed, whether vocational training, specialization, deepening or complementary training, (3) work experience, (4) motivation, (5) value systems and attitudes as the essence of organizational culture, (6) personality, (7) knowledge, (8) skills, (9) gender, (10) age and (11) physical measures, such as: weight, height, interests, pleasure, talent, and appearance.

For this reason, it is necessary to know the profile of some effective extension workers in this area. The reality at the research location that will be used as an object by researchers, agricultural extension workers are still underestimated among farmers in Padang Lawas Regency, so it is necessary to improve perceptions between farmers and extension workers who can help run the farmer organization system and agricultural extension workers. A competent extension worker profile is closely related to the acceptance of agricultural extension workers among farmers. Many phenomena are the cause of the lack of interest in the role of extension workers among farmers today, this is triggered by a very fast technology transition, and also farmers have felt the results of oil palm plantation crop commodities so that they make it a top priority for farmers while food crops are only an additional income so that the role of extension workers is not really seen by their presence (Zuhdi et al. 2021). In addition, the factor of education and training of an extension worker also fills the list of assessments in the eyes of farmers (Kumaat and Dotulong 2015).

Literature Review.

Perception

Perception according to (Kridani 2020) is the process used by an individual to select,

organize, and interpret information inputs to create a meaningful picture of the world. Perception does not only depend on stimuli related to the surrounding environment and the state of the individual concerned. The key word in the definition of perception is individual, people can have different perceptions of the same object because of three perceptual processes, namely: selective attention, selective distortion, and selective memory. According to (Giantara and Santoso 2014). Individual perceptions are essentially shaped by culture because they receive knowledge from previous generations. The knowledge he acquires is used to give meaning to the facts, events and symptoms he faces. Perception as a process by which individuals organize and interpret their sense impressions will give meaning to them. Perception is an experience of objects, events, or relationships obtained by inferring information and interpreting messages. The formation of a person's perception does not necessarily just happen, there must be several stages that become important components after a stimulus or stimulus received by a person. Then a response or stimulus occurs and the perception is formed and a perception is formed. According to (Merfazi 2019) perception has the following indicators:

1. Absorption of stimuli Absorption of stimuli or objects from outside the individual. The stimulus or object is absorbed or received by the five senses, both sight, hearing, touch, smell and taste independently or together. According to (Walgito 2004) the process of understanding the stimulus or stimulus obtained by the senses causes perception to be divided into several forms:
 - a. Perception through the sense of sight. A person can see with his eyes but the eye is not the only part until the individual can perceive what he sees, the eye is only one tool or part that receives a stimulus and this stimulus is transmitted by the sensory nerve to the brain until finally the individual can realize what is seen.
 - b. Perception through the Sense of Hearing People can hear something with the hearing device, namely, the ear. In hearing individuals can hear what hits the receptor as a response to the stimulus. If individuals can realize what is heard, then in this case individuals can perceive what is heard, and there is an observation or perception.
 - c. Perception through the Sense of Smell People can smell things through the sense of smell, namely the nose. Receiving cells or odor receptors are located in the inner nose. The stimulus is in the form of objects that are chemical or gases that can evaporate and hit the receiving devices in the nose, then forwarded by the sensory nerves to the brain, and some of the responses from the stimulus people can realize what they smell, namely the smell they smell.
 - d. Perception through the Sense of Taste The stimulus is a liquid object. The liquid substance hits the tip of the receiving cell on the tongue, which is then transmitted by the sensory nerve to the brain, until finally people can realize or perceive what is tasted.
 - e. Perception through the sense of touch (skin) This sense can feel pain, touch, pressure, and temperature. The above flavors are the primary skin flavors, while besides that there are still various variations. In pressure or touch the stimulus is directly on the part of the touch or pressure. This stimulus will cause awareness of soft, hard, smooth, and rough. Absorption or acceptance by the sensory organs will get a picture, response or impression in the brain. These images can be single or plural depending on the clarity of the stimulus or the normality of the sensory organs and time, recently or long ago and this will produce maximum data and in accordance with the existing conditions in the field. Where the stimulus is strong, the results obtained are more specific..
2. Understanding After images or impressions occur in the brain, the images are organized,

classified (clarified), compared, interpreted so that understanding or understanding is formed. The process occurs that is formed depending also on the old images that individuals have previously had.

3. Assessment or evaluation After understanding or comprehension is formed, there is a subjective assessment of the individual. Individual assessments vary even though the object is the same. Therefore, perception is individualized. In this process, one's inner sensitivity to the surrounding environment begins to appear. Where is an internal process to know and evaluate the extent to which we know other people. The perspective will determine the impression generated from the perception process..

According to (Ali et al. 2018) after individuals interact with perceived objects, the results of perception can be divided into two, namely:

1. Positive perception is a perception that describes all knowledge (whether you know it or not) and responses that are continued with efforts to utilize it. It will continue with activeness or accepting and supporting the perceived object.
2. Negative perception is a perception that describes all knowledge (whether you know or not) and responses that are not in line with the object being perceived. It will continue with passivity or reject and oppose the perceived object.

The emergence of a positive or negative perception all depends on how a person describes all his knowledge about a perceived object, such as perceptions that are very good, good, sufficient, not good and very bad.

Agricultural Extension Worker

Agricultural extension includes activities to provide knowledge and skills to farmer groups, so that these farmer groups are given the authority to directly deliver government policy programs to farmers. Agricultural extension workers must be competent agricultural experts who are able to communicate effectively with farmers. They are expected to encourage farmers' interest in cooperation and in their work must be oriented to the problems faced by farmers and the understanding of farmers. (Mulieng, Amanah, and Asngari 2018)"Extension competence is an inherent characteristic of the extension agent that increases the effectiveness of the extension agent's performance in carrying out the extension mission".

In extension organizations, it is necessary to determine the level of competence, in order to know the expected level of performance. Determination of the competency threshold needs of extension workers can be used as the basis for selection processes, successful planning, performance evaluation and competency development for each level of qualification of extension workers. Based on the criteria used to predict a job, (Spencer and Spencer 1993) distinguish competencies into two categories, namely (1) threshold and (2) differentiation. Threshold competencies are the main characteristics that a person must have to be able to carry out their work. These main characteristics are basic knowledge or skills related to the field of competence. Differentiation competencies are factors that can be used to distinguish between high-performing and low-performing individuals. These criteria are in line with the results of (Muliady's 2009) research on factors affecting the performance of agricultural extension workers and their impact on the behavior of rice farmers in three districts of West Java, concluding that extension workers' competencies positively affect their performance.

In addition, there is a direct influence of changes in the characteristics, motivation and independence of extension workers on the competence of agricultural extension workers

(Arifianto, Satmoko, and Setiyawan 2018). (Bahua and Musa 2017) suggested that the competence of extension workers needs to be improved through the extension worker's understanding of the characteristics, potential and state of natural resources, climate and environment in the area of fostered farmers. In addition, extension workers need to understand farmer behavior and its development potential, understand agricultural business opportunities that benefit farmers, assist farmers in accessing price and market information, understand applicable laws and regulations related to agricultural businesses. The results of research (Rosmalah et al. 2023) show that "the competence of extension workers has a real effect on the performance of extension workers (information management and leadership)".

The dimensions of extension worker competence include the ability to build interpersonal relationships, the ability to apply the philosophy, principles, and ethics of extension, and the ability in the field of expertise. In line with globalization in the form of trade liberalization, changes in consumer preferences for agricultural products and efforts towards environmental sustainability, requires a dynamic approach to agricultural extension following the changing times. The problem is that the role of agricultural extension workers is considered only as a disseminator of technology and information, whereas agricultural extension workers are required to be more towards a motivator, dynamizer (activator),

Agribusiness Competencies

Agribusiness competencies include aspects of knowledge, attitudes and agribusiness skills owned by farmers. In particular, the agribusiness competence of farmers is about the value-added aspects of farming owned by farmers. Regarding the concept of added value in farming, (Indrawati, Harijati, and Pertiwi 2011) revealed that many farmer group members claimed to know that the selling price of vegetables will increase if the vegetables are sold in a fresh condition and the selling price will increase if the vegetables have been sorted/sorted according to size and quality. Even so, farmers do not practice it because they want to get income immediately after selling their crops. This concept is thought to be too far removed from the thinking of farmers, who may only know about the handling of agricultural products and not about post-harvest vegetables. In addition, farmers want to make money from their farm as soon as possible, so post-harvest handling of vegetables is rarely done by farmers.

Agricultural extension includes activities to provide knowledge and skills to farmer groups, so that these farmer groups are given the authority to directly deliver government policy programs to farmers. Agricultural extension workers must be competent agricultural experts who are able to communicate effectively with farmers. They are expected to encourage farmers' interest in cooperation and in their work must be oriented to the problems faced by farmers and the understanding of farmers. (Harahap, Rosnita, and Yulida 2017) cited Spencer and Spencer's (1993) theoretical review that "extension agent competence is an inherent characteristic of the extension agent that increases the effectiveness of the extension agent's performance in carrying out the extension mission".

In extension organizations, it is necessary to determine the level of competence, in order to know the expected level of performance. Determining the competency threshold needs of extension workers can be used as the basis for selection processes, successful planning, performance evaluation and competency development for each level of extension qualifications. Based on the criteria used to predict a job, (Spencer and Spencer 1993) distinguish competencies into two categories, namely (1) threshold and (2) differentiation. Threshold competencies are the main characteristics that a person must have to be able to carry out their work. These main characteristics are basic knowledge or skills related to the field of competence. Differentiation competencies are factors that can be used to distinguish between high-performing and low-

performing individuals.

In addition, there is a direct influence of the characteristics, motivation and independence of extension workers on the competence of agricultural extension workers (Arifianto et al. 2018). (Pramono, Fatchiya, and Sadono 2017) suggested that the competence of extension workers needs to be improved through extension workers' understanding of the characteristics, potential and state of natural resources, climate and environment in the area of fostered farmers. In addition, extension workers need to understand farmer behavior and its development potential, understand agricultural business opportunities that benefit farmers, assist farmers in accessing price and market information, understand applicable laws and regulations related to agricultural businesses.

Research Method

The location used by researchers as a research object in carrying out research is in Huristak District, Padang Lawas Regency. The research time lasted for three months starting from December 2023 to June 2024. The method used in determining respondents is the simple random sampling method, with a research sample of five extension workers who are assessed based on the answers of farmer respondents as many as 3 fostered farmer groups, each group of 3 respondents, a total of 9 respondents taken according to positions in farmer groups.

Results and Discussion

Farmers' Assessment of the Character of the Extension Officer

The farmers' assessment of the farmer group on the characteristics of the extension workers can be seen in the following table:

No	Farmers' assessment of extension workers	Marahuddin Harahap	Syahrani Muliadi Harahap	Raja Muda Hasibuan	Parlindungan Harahap	Fahmi Saputra Harahap
1.	Responsibility for Duty	36	37	35	34	37
2.	Affection for Farmers	34	39	32	29	36
3.	Confidence in the Material Provided	32	35	30	26	35
4.	Mastering Science / Technology	32	33	30	23	36
5.	Quick to Adapt	34	37	33	20	36
6.	Patience, Diligence	36	35	31	18	39
7.	Always Ready to Help	36	38	33	19	34
8.	Discipline	34	38	29	20	42
9.	Educated	33	36	31	20	34
10.	Progressive, Dynamic, Democratic	33	36	29	22	40
11.	Willing to Learn	36	37	30	21	40
Total		376	401	343	252	417
Presentase		75.95%	81.01%	69.69%	50.90%	84.24 %
Category		Good	Very Good	Good	Good enough	Very good

Based on data from Table 4. 6 concluded that farmers' perceptions of the profile of extension workers in aspects based on the nature of extension workers showed that the average score obtained was 357.8 with a percentage of 72.12% included in the good category, where the highest score was obtained by the sample extension worker Mr. Fahmi Saputra Harahap, namely with a score of 417 with a percentage of 84, 00% because Mr. fahmi saputara harahap is the youngest extension agent still only working 3 years, progressive, dynamic and democratic, has a spirit of educating discipline and is always ready to help, mastering science and technology makes Mr. fahmi saputra harahap very confident in the material he provides, patient and diligent and willing to learn to adapt quickly, be responsible for duties and have compassion for farmers.

While the lowest score is on the sample extension Mr. Parlindungan Hasibuan with a score of 252 with a percentage of 50.90% categorized as quite good, this shows that the sample extension Mr. Parlindungan Hasibuan in the assessment of farmers respondents less patient and less diligent and also very difficult to help farmers because Mr. Parlindungan Hasibuan very rarely make field visits, he only comes when there is a need and if farmers contact him, considered less responsible for their duties.

Farmers' assessment of extension worker skills

This assessment is a theory put forward by (Giantara and Santoso 2014), that the process of social, economic and political change to empower and strengthen the ability of the community through a participatory learning process, in order to change behavior in all stakeholders (individuals, groups, institutions) involved in the development process, for the realization of an increasingly empowered, independent and participatory life that is increasingly prosperous in a sustainable manner..

No	Extension Skills	Penilaian Petani Marahuddin Harahap	Penilaian Petani Syahran Muliadi Harahap	Penilaian Petani Raja Muda Hasibuan	Penilaian Petani Parlindungan Harahap	Penilaian Petani Fahmi Saputra Harahap
1.	Understanding the Role of Extension Organizations	34	37	36	35	36
2.	Technology Knowledge	34	34	30	27	36
3.	Ability to Explain the Purpose of the Extension Program	34	38	29	24	36
4.	Ability to Organize the Community	33	36	31	24	35
5.	Skills to Adjust Activities to Field Conditions	33	33	32	23	37
6.	Research Skills	34	32	31	23	36

7. Skills in Community Relations	33	38	31	25	36
Total	235	248	220	177	252
Presentase	74,60%	78.73%	69,84%	56.19%	80.00%
Kategori	Good	Good	Good	Good enough	Very Good

Source: Primary Data Processing Results, 2024

Based on the table above, it can be seen that the perception of farmers on the profile of agricultural extension workers in Huristak sub-district in the aspect of assessment based on the skills possessed by the extension workers shows that the average score obtained is 226.6 with a percentage of 71.87% including in the good category. where the highest score was obtained by the sample extension officer Mr. Fahmi Saputra Harahap with a score value of 252 with a percentage of 80.00% categorized as very good, the value was given by respondent farmers based on skills in adjusting activities to field conditions, skills in researching and skills in community relations, ability to explain program objectives, knowledge of technology, understanding the role of organizations and the ability to organize farmers.

While the lowest score is obtained by the sample extension worker Mr. Parlindungan Hasibuan with a score of 177 with a percentage of 59.19% categorized as quite good. The value is given by farmer respondents based on the skills possessed by Mr. Parlindungan Hasibuan is still considered ordinary, nothing stands out, even considered less good at organizing farmers, still lacking knowledge of technology, research skills are also still lacking and have not been able to adjust activities with field conditions. due to rarely make field visits Mr. Parlindungan Hasibuan is still lacking in community relations in his wkpp.

Farmer Respondents' Assessment of Farming Activities

This assessment is a theory put forward by (Darmawan and Mardikaningsih 2021), the determinants of the success of agricultural extension can be observed from changes in the implementation of farming activities which include the type and amount of farming facilities or techniques, changes in productivity and income levels, changes in business management (individual, group, cooperative), as well as management of income obtained from farming.

Table 3 Responses of Farmer Respondents Regarding Changes in Farming Activities

No	Farming Business Change	Marahudd in Harahap	Syhran Muliadi Harahap	Raja Muda Hasibuan	Parlindungan Harahap	Fahmi Saputra Harahap
1.	Changes in the number and means of farming	34	36	33	30	37
2.	Changes in productivity and income levels	34	35	31	28	35
3.	Changes in business management	33	36	28	27	37
4.	Changes in income management	33	27	29	24	36
Total		134	134	122	109	145
Presentase		74.44%	74.44%	67.77%	60,55%	80.55%

Category	Good	Good	Good	Good	Very Good
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Source: Primary Data Processing Results, 2024

Conclusion

Farmers' perceptions of the profile of agricultural extension workers in Huristak sub-district are in the good category. with an average score of 713 with a percentage of 72.02%. Where the highest score was obtained by the sample extension worker Mr. Fahmi Saputra Harahap with a total score of 814 with a percentage of 82.22% where the highest score was on the aspect of farmer assessment of the nature of the extension worker with a total score of 357.8 with a percentage of 72.12% and categorized as good, and the lowest score was on the aspect of changes in farming with a total score of 128.8 with a percentage of 71.55% but still in the good category.

An extension worker, whether in agriculture, health, education, or other fields, requires various traits and skills to succeed in his work which include responsibility, love, confidence, mastering knowledge, adapting quickly, patience, discipline, dynamic educational spirit and willingness to learn. In addition, extension workers must also have skills in technology, organization, adjusting to field conditions, researching and being able to establish relationships with the community.

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