The Role and Communication Competence of Agricultural Instructors on Rice Productivity Levels in Kota Manna District, South Bengkulu Regency

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This study aims to examine the impact of agricultural extension agents' role on the productivity of paddy fields in Kota Manna District. This research uses a quantitative approach with descriptive methods. We used single-table analysis, cross-tabulation analysis, the partial t test, the simultaneous F test, and the coefficient of determination to analyse the research data. The results confirmed the acceptance of Ha1, indicating a relationship between the role of agricultural extension workers and the productivity of paddy rice in Kota Manna Subdistrict; the acceptance of Ha2, indicating a relationship between the communication competence of agricultural extension workers and the productivity of paddy rice in Kota Manna Subdistrict; and concurrently, the acceptance of Ha3, indicating that both the role of agricultural extension workers and their communication competence have an influence on the productivity of paddy rice in Kota Manna Subdistrict. The Guilford scale categorizes the simultaneous influence of the role variable and the communication competence of agricultural extension workers as moderate or medium, indicating a relatively high impact. Institutions, and the availability of credit.

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INTRODUCTION

Industry faces challenges from internet-based digital technology. Agriculture as a sector that manages food in this country must adapt and use internet-based digital technology. Internet-based technology will revolutionize agricultural activities including managing land, water, crops and tractors with just a pen. Digital technology is developing faster than human capabilities. There are still many Indonesian people who are not yet technologically literate. In this era, farmer speed and creativity are key. Water, labor and natural resources are no longer a priority. Technological components have turned certain farmers into participants and improved business efficiency and product quality. Extension here is limited to production and productivity objectives. In this case, many farmers are not helped in managing their business. Farmers in several provinces in Indonesia are still traditional. Problems arise because farmers do not have access to technology and high-quality materials. Large farmers remain ignored. Therefore, extension workers as the spearhead of this sector are expected to be able to help farmers in dealing with the digitalization of information (Ramayana, 2023).

In 2017, the Agricultural Extension and Human Resources Development Agency (BPPSDMP) reported that there were 44 million cases of PNS and THL in Indonesia, including 72 million cases in rural areas. This condition shows that there is a balance between land and extension workers. Therefore, extension workers cannot move outside one target district. The increasing complexity and control of tasks is becoming a problem in agricultural development. This affects the quality and efficiency of the instructor’s role. As time goes by, digital communication and information has become the key to speed, precision and accuracy in accelerating performance achievements in all fields. This is no exception in accelerating the realization of food sovereignty for 273.3 million Indonesian people. In this regard, the Ministry of Agriculture has established an Agricultural Development Strategy Command node known as Kostratani in each sub-district.

Communication is very important in agricultural extension because communication functions as a tool and can determine how effective a business is (Hartati et al., 2020). Effective communication can help farmers develop their businesses. Because each farmer in an agricultural area has different characteristics, the way they communicate must be adapted to these characteristics. A two-way and interpersonal dialogue approach will provide better results in farmer extension in isolated rural areas (Bahua, 2014).

An agricultural instructor who has good communication can convey agricultural information clearly, precisely and accurately to farmers (Rahmanita, 2016). This enables farmers to properly understand agricultural concepts, latest practices, technology and other important information that can improve their agricultural yields. Effective communication helps ensure that farmers receive correct and relevant information, so that increasing the likelihood of adopting better agricultural practices (Haq & Sutarto, 2023). Good communication from an agricultural instructor can encourage active participation of farmers in agricultural extension programs. When agricultural extension workers are able
to explain the benefits and goals of the program clearly, build good relationships with farmers, and listen to their input and needs, farmers tend to be more motivated to engage in extension activities and take necessary actions to improve their agriculture.

The presence of agricultural extension workers currently contributes to a certain extent to increasing farmer production. Agricultural extension workers play an active role in disseminating agricultural information (Kamaruzzaman, 2016). According to the findings of Darmaluddin & Muliawan (2012), agricultural extension workers have been proven to significantly influence increasing farmer production. Julio et al (2014) also stated the same thing, stating that there was a difference in income between strawberry farmers who took part in the extension program and those who did not. Farmers who diligently participate in extension programs have higher production compared to farmers who are less diligent in participating in the program. Another study with similar findings was presented by Bahri (2019) who explained the differences in lowland rice productivity before and after agricultural extension, which indicated the impact of agricultural extension on increasing lowland rice productivity.

The condition of people's agriculture, which is still weak in various aspects, while the challenges faced are increasingly severe, requires activity extension and the role of extension agents are intensive, continuous and directed. The role of agricultural extension must be positioned strategically to ensure well-coordinated and effective implementation. Rice farmers need to continue to get the latest inspiration to increase motivation and enthusiasm in seeking to increase rice production consistently and with commitment (Eswandi, 2017).

Data from the Ministry of Agriculture's Strategic Plan 2020-2024 revision 2 shows that the production of dry milled grain (GKG) for rice in Indonesia increased to 81.15 million tons in 2017. Using the Area Sample Frame (KSA) method, which is a sampling approach with land area as enumeration unit, BPS released rice production data in 2018. This system improves the long-used rice data calculation method by using technology such as geographic information systems (GIS), remote sensing, information technology, and statistics. To increase the accuracy of calculations, the KSA basis is used to count tile samples to reduce harvest risk. The results of the KSA method calculation show that rice production in 2018 was 59.20 million kilograms of Milled Dry Grain (GKG), a decrease from the previous Agricultural Survey (SP) rice method data of 81.15 million kilograms.

The success of agricultural development depends on the skills of quality farmers. If farmers have good insight into something, this will in turn result in changes in farmer behavior. Farmers who have skills also have the ability to improve their behavior and habits when farming. The lack of skills of farmers means that the agricultural products they produce are not optimal (Limonu, 2015). Farmers expect agricultural extension workers to perform well because they are considered capable of solving their problems (Muchtar, 2015). The quality of agricultural instructors' work in helping farmers determines the increase in farmers' knowledge, attitudes and skills in their farming business (Yuswandi et al., 2023).
Lack of available agricultural extension workers or lack of accessibility to rural areas may make communication and technical guidance limited; The level of education and awareness of farmers in Kota Manna District, South Bengkulu Regency can also influence interaction and communication between agricultural instructors and farmers. If the level of education is low, agricultural extension workers may need to adapt their communication approach to suit the farmer's level of understanding; Cultural and contextual aspects also influence communication and interaction between agricultural instructors and farmers. Differences in language, beliefs, customs, or social norms can influence the way agricultural extension workers communicate and how their messages are received by farmers. In overcoming this challenge, it is important to carry out continuous evaluation and updates regarding the role and communication competence of agricultural extension workers. Support from the government, ongoing training, and collaboration between various parties can help improve communication competence and strengthen the role of agricultural instructors in increasing rice productivity in Kota Manna District, South Bengkulu Regency.

LITERATURE REVIEW

The novelty in this research lies in a more specific focus on the role and communication competence of agricultural instructors on the level of rice productivity in Kota Manna District (Sari, 2017; Smara & Agung, 2017). This research expands understanding of the influence of the role and communication competence of agricultural instructors on agricultural productivity levels, which has not previously been studied in depth in this context. Communication competence and competency have important differences. The previous research above discusses competency in general, which refers to the overall abilities, knowledge, skills and attitudes possessed by a person in a particular context, while current researchers focus on discussing communication competency more specifically, referring to a person's ability to communicate effectively (Muin, 2017; Kabu, 2020; Alif, 2020). This involves understanding and applying the principles of good communication, including listening, speaking, writing and adapting to different audiences.

The communication competencies required in this research include the ability of agricultural instructors to communicate effectively with farmers, both in terms of conveying information, understanding farmers' needs, and the ability to motivate and influence farmer behavior to increase agricultural productivity. By having strong communication competence, agricultural instructors are expected to be more effective in providing counseling and guidance to farmers, so that they can contribute positively to increasing lowland rice productivity in the region (Kasemin, 2016; Jamalani et al., 2023; Lustono & Hasnaeni, 2019). Apart from that, the use of quantitative methods with a correlational approach and data collection through surveys is also novel in this research, because it provides a more structured and measurable approach in identifying relationships between the variables studied. Thus, it is hoped that this research can provide a deeper understanding and more concrete solutions related to the level of agricultural productivity through increasing the role and communication competence of agricultural instructors.
METHODOLOGY

Collecting survey data makes this research quantitative descriptive. This research examines the relationship between the independent variable (X) and the dependent variable (Y). The independent variables referred to in this research are the role of agricultural instructors and the communication competence of agricultural instructors, while the dependent variable is the level of rice productivity. The population in this study were farmers who cultivated rice in Kota Manna District, South Bengkulu Regency, who were identified by ownership of an Identity Card (KTP). Data from the South Bengkulu Regency Agriculture Service in 2023 shows that there are 225 rice farmers in Kota Manna District, South Bengkulu Regency. The entire population consisting of 225 rice farmers in Kota Manna District was the sample in this research. Before using the questionnaire in research, researchers will assess its validity with 30 respondents. Researchers used SPSS software and Bivariate Pearson correlation (Pearson Product-Moment) to assess the validity of the research instrument. Validity measurement is carried out by calculating the correlation between each item. The formula used to test reliability is using Cronbach Alpha using the IBM SPSS Statistics application. After testing the independent variable and dependent variable instruments using 30 respondents, a reliability test result was obtained of 0.929. Based on the reliability test table above on the dependent variable, namely the level of productivity, using the Cronbach's alpha method, the alpha coefficient value was 0.848. Because the alpha coefficient value is 0.848, it can be interpreted that this item has very high reliability. Proven by the reliability value of > 0.6, it can be said that the research instrument used in this research is reliable.

RESEARCH RESULT

The results showed that a maximum of 72 respondents agreed that the instructor had demonstrated good rice cultivation to farmers and a maximum of 72 respondents also agreed that their crop yields had increased after practicing the instructor's guidance regarding good rice cultivation. Farmers felt that the demonstration had provided useful information and skills for farmers, so that they could increase their crop yields and apart from that, supportive natural conditions, such as sufficient rainfall and controlled pests, also contributed to increasing their crop yields. However, it turns out that there is still a majority of 40 respondents who do not agree because some farmers feel that the advice given by extension workers is not appropriate to local conditions, such as the type of soil, climate, or pests and diseases that often attack in their area and also some farmers still lack sufficient capital to buy fertilizers, pesticides, or agricultural tools recommended by extension workers.

The highest answer in this table is the Agree category, with a total of 146 respondents. This shows that the majority of respondents (65%) felt that their crop yields increased after participating in the rice cultivation demonstration. Therefore, this cross table shows that rice cultivation demonstrations have a positive impact on farmers' harvests. The majority of respondents (65%) felt that their crop yields increased after participating in the demonstration. This shows that the demonstration is an effective tool to help farmers increase their productivity. From the results of the respondents' answers, it can be seen that the
relationship between the ability of extension workers and the ability of farmers in managing rice field water use is mutually supportive. The ability of qualified extension workers to demonstrate good rice cultivation practices, including water management, will help farmers increase crop yields and production efficiency.

Besides that, regarding instructors being able to make direct visits, it was found that the majority of 67 respondents answered in the affirmative regarding the instructors' ability to make visits or anjangsana to farmers directly and the majority of 67 respondents also agreed that they were able to manage water use in their rice fields. From these results it is known that farmers who are visited by extension workers receive more information and training about rice water use directly, thus increasing their ability to manage rice fields. Farmers who are visited by extension workers will be more motivated to improve their abilities in managing rice fields because they feel they are receiving attention. And support from extension workers, and farmers visited by extension workers will have better access to information about paddy water use, which can help them improve their abilities. However, there were also 36 farmers who did not agree because the farmers felt that there was a lack of monitoring by extension workers to ensure that farmers implemented what they learned from extension services well, so that there was a need for regular visits by extension workers to farmers. This cross table shows that extension visits have a positive impact on farmers' ability to manage rice field water use. The majority of respondents (57%) felt that they were able to manage rice field water use well after attending the extension visit. This shows that extension visits are an effective tool to help farmers improve their knowledge and skills in managing paddy water.

From the results of the respondents' answers, it can be seen that when an instructor rarely makes direct visits to farmers or anjangsana, the farmer's ability to manage rice field water use is also lacking, this is because the instructor plays an important role in providing the latest information and knowledge about existing water management techniques and practices. optimal for rice fields. Without extension visits, farmers may not have access to this information, which could cause them to use inefficient water management methods. Therefore, it is important to ensure that extension workers make regular and regular visits to lowland rice farmers to assist them in improving their abilities in water use management and increasing crop yields.

The coefficient of determination (R-square) value of 0.537 in this study indicates that 53.7% of the variation in lowland rice productivity levels in Kota Manna District can be explained by the role and communication competence of agricultural instructors. This means that half of the variation in lowland rice productivity levels is influenced by the role and communication competence of agricultural instructors, while the other half is influenced by other factors not included in the research.
DISCUSSION

Based on the research results obtained, the role of agricultural instructors as facilitators, motivators, educators and communicators has a strong influence on the level of rice productivity in Kota Manna District, South Bengkulu Regency. This is supported by the results of previous research which show that the variable role of agricultural instructors has a positive influence on the level of lowland rice productivity in Kota Manna District, South Bengkulu Regency, because the researcher has tested the t hypothesis by obtaining a significance value of 0.000 < 0.005 and the calculated t value is 4.388 > t table 1.970. Based on the results of these calculations, it can be concluded that the variable role of agricultural instructors partially influences the level of lowland rice productivity in Kota Manna District, South Bengkulu Regency.

Overall, the role of agricultural instructors as facilitators, motivators, educators and communicators has a positive influence on the level of rice productivity in Kota Manna District. By helping rice farmers access resources, providing motivation, providing education, and facilitating effective communication, agricultural extension workers help rice farmers to improve their agricultural skills, knowledge, and practices, which will ultimately help increase their rice productivity.

The findings of this research are in line with research by Jamalani, Rustan DM, and Didiek Handayani Gusti (2023) with the title "The Influence of Communication Competence and Professionalism on the Quality of Public Services by Selayar Islands Regency Transportation Service Officials". In Jamalani et al.'s research, the results showed that the communication competence and professionalism of transportation service officials had a significant influence on the quality of public services. Likewise, in the context of the role of agricultural instructors on lowland rice productivity levels, the role of agricultural instructors who are effective and have good communication competence will contribute to increasing lowland rice productivity levels. Conceptually, it can be said that in both the agricultural sector and the public service sector, good roles and competencies are very important to achieve the desired results. In the agricultural sector, the role of agricultural instructors and good communication competence can help farmers increase productivity and quality of agricultural products. Meanwhile, in the public service sector, the role of transportation service officials and good communication competence can influence the quality of public services to the community.

In the context of this research, the results of the t test show that the role of agricultural instructors has an influence on the level of lowland rice productivity in Kota Manna District, South Bengkulu Regency. This shows that agricultural extension workers who are active, involved and provide an effective role in supporting farmers will have a positive impact on increasing productivity.

The communication success of Manna City agricultural extension workers in developing effective lowland rice farmers will be reflected in their ability to understand, inform, support, involve and evaluate farmers effectively based on the principles of communication theory. Good communication between agricultural instructors and rice farmers in Kota Manna District is the key to
achieving the goals of sustainable agricultural development and increasing overall agricultural output in Kota Manna District.

Communicative agricultural instructors can convey information about more efficient agricultural techniques, pest and disease management, and the use of new technology in rice farming. So this knowledge and skills can improve farmers' performance in managing their land and crops. By increasing rice production in Manna City, farmers will get higher incomes, which in turn can improve their welfare.

In this research, agricultural instructors' communication competence is measured through variables such as the instructor's ability to provide accurate and relevant information, the instructor's ability to understand farmers' needs, and the instructor's ability to increase farmer awareness about the importance of good agricultural practices. The research results show that the communication competence of agricultural instructors has an influence on the level of lowland rice productivity, with a calculated t value of 4.179 which is greater than the t table value of 1.970. Apart from that, the partial t value of 0.000 is also smaller than the t table value of 0.05, which shows that there is an influence of agricultural instructor communication competence on the level of rice productivity.

To connect research results with William Cupach and Brian Spitzberg's communication competency theory, we need to understand the basic concepts of the theory. According to Cupach and Spitzberg, communication competence is related to a person's ability to manage and produce effective messages in various communication situations (Muh & Seli, 2023).

By considering the communication competency theory by Cupach and Spitzberg, it can be assumed that agricultural instructors in Manna City have good knowledge about agriculture, effective communication skills, and positive motivation and are able to have a positive impact on the level of rice productivity in the District. Manna City, South Bengkulu Regency. The research results that have been explained are in line with research conducted by Lestari et al (2023) which concluded that communication competence has a positive effect on interest in vaccinating, where the higher the communication competence of the Covid-19 Task Force, the greater the interest in vaccinating. Thus, when communication competency rules are applied both in the context of Covid-19 vaccination and in the context of agriculture, effective communication can have a significant impact. In research on Covid-19 vaccination, the communication competence of the Covid-19 Task Force and the intensity of family communication influence people's interest in vaccinating. Likewise, in the agricultural context, the communication competence of agricultural instructors can also influence the level of rice productivity in Kota Manna sub-district. Agricultural extension workers who have good communication competence can also adapt their messages and approaches to the needs and characteristics of farmers in Kota Manna District.

In conclusion, although the research topics mentioned are different from the agricultural extension context, the basic principles of communication competence and their influence on behavior remain relevant. In both contexts,
effective communication is the key to influencing desired behavior or practices, whether it is interest in vaccinating or implementing more effective agricultural practices to increase lowland rice productivity (Wardhani, 2005).

In counseling, the three elements that are targets for change are knowledge (cognitive aspect), attitude (effective aspect), and skills (psychomotor aspect). In agricultural extension, the ultimate goal is behavior change (Zubaidi & Rofiatin, 2011). Good communication competence in agricultural extension workers will enable them to be more effective in carrying out their roles. They will be able to convey information in a way that is engaging and easy for farmers to understand, motivating them to adopt necessary changes, and facilitating learning processes and positive behavior change. Thus, increasing the communication competence of agricultural instructors will have a direct impact on increasing lowland rice productivity in Kota Manna District through more effective extension.

This is proven by the results of research regarding the results of the F test showing that simultaneously, the role and communication competence of agricultural instructors has an influence on the level of rice productivity. In this case, the p-value obtained is 0.000 < 0.05, and the calculated F value (128.807) is greater than the F table (2.326). This shows that together, the role and communication competence of agricultural instructors influence the level of rice productivity. The results of this research are in line with research by Lustono and Anisa Desy Hasnaeni (2019), researchers studied the influence of communication, competence and discipline on employee performance at the Banjarnegara Research & Development Planning Agency (Baperlitbang) Office. The research results show that effective communication, good competence and high discipline have a positive influence on employee performance.

In the context of these two studies, the influence of communication competence in employees/communication competence in agricultural instructors and the role of employees/role of agricultural instructors play an important role in achieving the desired results. Good communication competence in employees or agricultural extension workers allows them to communicate well, convey information clearly, understand the needs of the target audience, and establish good relationships with farmers/employees. Meanwhile, the effective role of agricultural employees/instructors involves tasks that support increased productivity and performance.

In the context of agricultural development in Kota Manna District, South Bengkulu Regency, this research shows that good communication competence and the effective role of agricultural instructors have an influence on the level of rice productivity. Good communication enables agricultural extension workers to interact with farmers effectively, while an effective role helps in providing guidance, education and assistance to farmers to improve their agricultural practices.

The results of this research have important implications for the development of the agricultural sector in Kota Manna District, South Bengkulu Regency. By improving the communication competence of agricultural extension workers and strengthening their role, the government and related stakeholders...
can increase the level of rice productivity in the region. Efforts to train and develop communication competencies for agricultural instructors need to be considered, so that they can be more effective in conveying information, providing guidance, and facilitating the exchange of knowledge between agricultural instructors and farmers.

In conclusion, this research shows that the role and communication competence of agricultural instructors has an influence on the level of lowland rice productivity in Kota Manna District, South Bengkulu Regency. These findings are consistent with previous research linking communication roles and competencies to performance or outcomes in different contexts. Therefore, developing the communication competence of agricultural extension workers and strengthening their role is an important step in increasing agricultural productivity and farmer welfare in the region.

Some of the things that researchers have described above regarding the study and analysis of the role and communication competence of agricultural instructors which are linked to the level of productivity of lowland rice in Kota Manna District, South Bengkulu Regency, is a good novelty for improving the welfare of farmers through the level of productivity of lowland rice which is assisted by the role of good agricultural instructors.

**CONCLUSIONS AND RECOMMENDATIONS**

The alternative hypothesis (Ha1) can be accepted while the null hypothesis (H01) is rejected. This means that there is an influence between the role of agricultural instructors on the level of rice productivity. The research results are in line with previous research in the agricultural sector, the role of good agricultural instructors can help farmers increase productivity and quality of agricultural products. Acceptance of the alternative hypothesis shows that the role of agricultural instructors, which involves effective communication skills, influences the level of rice productivity. Thus, the communication competency theory remains relevant and accepted in this research. This influence occurs because the role of agricultural instructors influences the effectiveness of communication, understanding farmers' needs, motivation and encouragement, and the delivery of relevant information to farmers. The alternative hypothesis (Ha2) can be accepted while the null hypothesis (H02) is rejected. This means that there is an influence between the communication competence of instructors on the level of rice productivity in Kota Manna District, South Bengkulu Regency. In the context of William Cupach and Brian Spitzberg's communication competence theory, these results indicate that this theory is still relevant in this research. The instructor's communication competence, which may include aspects such as clarity, persuasiveness, and ability to interact with farmers, is related to the level of rice productivity. Therefore, these findings support the applicability of the communication competency theory in the context of research on agricultural productivity. The alternative hypothesis (Ha3) can be accepted while the null hypothesis (H03) is rejected. This means that, simultaneously, both the role of agricultural instructors and the communication competence of agricultural instructors have an influence on the level of rice productivity. Therefore, the communication competency theory is still relevant in this research.
showing that good communication skills of agricultural instructors can contribute positively to productivity levels in the context of lowland rice farming. The active and effective role of agricultural instructors enables the delivery of appropriate information and guidance to farmers, while good communication competence enables agricultural instructors to communicate effectively with farmers. With the combination of these two factors, farmers can gain the knowledge, skills and support needed to increase their productivity.

ADVANCED RESEARCH

Researchers suggest to parties who will continue research on communication competence, to be able to research using other relevant variables to determine the relationship or correlation by taking into account other factors that can influence the level of rice productivity such as type of rice variety, planting distance, use of fertilizer, planting system and soil conditions, climate, pests and diseases, cultivation techniques and technological innovation, farmer skills, length of service of the instructor, friendliness of the instructor, intensity of extension, distance to location of extension and economic factors such as production costs, labor prices, education level, level of income, risk and uncertainty, institutions, credit availability, and so on. The researcher also suggests that future researchers can carry out further research by conducting a more in-depth study regarding communication competence or the role of extension workers by using qualitative approaches such as in-depth interviews or focus groups to gain deeper insight into the experiences and perspectives of farmers and extension workers or research combination (mix methods). Various methods can provide deeper insight into how communication competence or the role of agricultural instructors influences farmers' agricultural practices and rice productivity results in each region.

REFERENCES


