# Farmers' Interest in Continuing Organic Rice Farming in Yogyakarta

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**Abstract.** The study aims to determine the interests of farmers and the factors that influence farmers' interest in continuing organic rice farming in Sleman Regency. The study conducted in Sleman Regency, which is an area that has applied the principles of organic rice farming by taking about 70 organic farmers. The data was analyzed descriptively and multiple regression analysis. The results showed (1) The interest of farmers to continue organic rice farming based on internal needs and emotional are verry powerful, while social motives are included in the strong category. It is known that the interest of farmers in continuing organic rice farming in Sleman Regency is said to be very high in meeting physical and spiritual needs, high in social relations, and very high in paying attention to organic rice. (2) Factors that influence the overall interest of farmers in terms of internal needs, social motives, and emotions are age, formal education, non-formal education, farming experience, income, land area, frequency of presence of extension workers, assistance, and number of dependents.

## 1 Introduction

The agricultural sector has a major role in the survival of farmers, producers of raw materials as well as raw materials for industry players, food providers for the population, and providers of jobs. Regarding the role as a food provider, the rice commodity becomes the main staple food for the Indonesian population [1]. This is because rice has a carbohydrate content of 78.9%, fat 0.7%, protein 6.8%, and others 0.6% which is beneficial for the body's nutritional and energy intake [2].

The rice can be grown conventionally using chemical fertilizers and pesticides and organically using organic materials. Rice farmers started switching from traditional rice farming to organic rice cultivation because they were concerned about their health and the environment [3]. Farmers faced a number of challenges when switching from conventional to organic rice farming, including a lack of knowledge of organic technology, a lack of adaptability, difficulty finding organic production facilities nearby, a lack of post-harvest capital, unstable prices for organic grain, and relatively low organic rice production [1]. In addition, there was a decline in production during the three early growing seasons of the transition. Organic rice production will stabilize and increase in certain periods that are common after three growing seasons. Farmers' enthusiasm in continuing to grow organic rice

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in Sleman is impacted by this condition, which they experience. Interest is the key in adjusting between work and someone so that it becomes a consideration in decision making [4].

There are three aspects that can cause interest in a person, namely needs from within, social motives and emotional aspects. Needs that have to do with psychiatric (spiritual) and physical can generate a person's interest in doing activities. On social motives, the emergence of interest in a person can be driven by needs in terms of obtaining rewards, recognition from the living environment, and social relationships with others. Meanwhile, in the emotional aspect there is an element of feeling, because when participating or having experiences, interest will be accompanied by happy feelings [5].

Several studies on the interests of farmers provide diverse information. Lack of understanding of how environmental conservation agriculture (ECA) translates into climate change activism limits farmers' aspirations to improve their local/global environment and boost their production. Additionally, there is a heterogeneity of factors influencing some farming communities in terms of effective adoption techniques for ECA [6].

Farmers who have expressed interest and are currently assessing the ECA for their circumstances should consider what motivates their desire and keep development from exceeding the ECA's level of intensity. According to respondents, there is a need to resolve difficulties with financial viability, stover competition, small-scale mechanization, and information exchange methods if the ECA is to continue to be supported. Respondents indicate that ECA needs to be further modified to meet their contextual reality if farmers' interest in ECA should be based on the technology itself and not a distorted incentive, and that interest should be developed into implementation. To do this, the system's components must promote the ECA in a way that is more adaptable and transitional and is made possible by increased community involvement in the research and extension system [7].

Based on the aforementioned study, it may be necessary to reassess the use of economic incentives to promote the adoption of conservation practices given the mounting body of research showing how pro-social factors affect conservation choices. We propose for more integration between both methods by highlighting the parallels and distinctions between environmental psychology research and applied environmental management [8].

Features of interest of sheep producers ranked by growth rate, body size and marketing value are ranked third. The practice of genetic improvement in sheep producers of smallholder farmers shows promising results with indigenous Washera F 1 crossbred lambs and which are intended for weaning rates, body size, marketing age, age at first lambing, good temper, and large litter size in their ranking order. The tendency of contemporary breeding practices suggests that, reducing herd size to increase herd productivity through the practice of crossbreeding [9]. The main characteristics of interest (TOI) in the Corsica (France) and Thessaly (Greece) regions are related to milk production, milk persistence, udder shape, and vulnerability to diseases like mastitis. Through the use of these TOIs or connected TOIs as replacement criterion or other breeding procedures like culling and utilization of breed, improved herd performance for TOI can be attained [10]. The number of sources of agricultural information, the frequency of eating animal-source food, the frequency of eating fruit, the size of the farm, the plant diversity score, the amount of income earned outside the farm, the frequency of visits to the extension office, and the consumption of crickets are all factors that affect awareness on cricket farms. Along with having a cell phone, the degree of risk aversion, and eating termites, some of these characteristics also affected people's enthusiasm in adopting cricket farming [11].

In horticultural commodities, the results of statistical tests indicate that the performance of young farmers is influenced by individual characteristics, economic environment, socio-cultural environment, management capacity, and interests, despite the fact that there is still a strong interest in horticultural agriculture in Malang Regency. However, both the economic

and sociocultural environments have an impact on performance through the interests of farmers, economic variables, family environments, and personal characteristics, particularly in terms of agricultural technology and capital that will stimulate the interest of young farmers in horticultural agriculture in Malang, Indonesia [12]. Factors influencing farmers' interest in shallot farming consist of land area, experience, income, support, and trauma. The chances of farmers in shallot farming increase by 22% if the land area increases by one hectare. Probability variables with support were 0.3% stronger than without support. While the probability variable without trauma is stronger by 0.014% compared to trauma [13].

The Theory of Values, Beliefs, and Norms is a useful paradigm for forecasting farmers' interest in the valorization of horticultural by-products in the agricultural domain. More findings imply that an internal ecological worldview may be pertinent for farmers' perceptions of contextual factors promoting bio-economics. These findings may have managerial and policy repercussions related to locating prospective clients to spread cutting-edge sustainable practices and generally advance bio-economics [14].

According to different research, 61% of operators are at least somewhat interested in producing wood biomass. To delve deeper into how the characteristics of the agricultural system, those of individual farmers and ranchers, as well as pertinent attitudes, knowledge, and perceived limits, ordered *probit* regression is utilized [15]. Regarding the hemp crop, 75% of respondents said they were interested in becoming certified farmers, and 52% said they intended to grow industrial hemp primarily for cannabidiol (CBD) oil. The vast majority of responders (65%) said they hoped to be one of the pioneering farmers in their region to cultivate and market hemp. Industrial hemp production is more likely to be adopted by farmers who have experimented with novel crops or agricultural techniques in the last three years. The research will enable decision-makers to comprehend the major issues of farmers intending to adopt industrial hemp as a substitute source of income [16]. While the majority of row crop growers are willing to accept the farmgate price when it is at $0.28/kg, the majority of them will be interested in growing pennycress if it is lucrative [17].

A number of additional factors, in addition to structural losses alone, may influence Polish farmers' desire in agricultural diversification [18]. Poland's farmers' interest in these schemes varies significantly by location. This interest is more pronounced in regions with improved agrarian structures and higher levels of agricultural development. These two aspects are connected to Poland's natural environment as well as a significant historical setting [19].

In the future, 21% of farmers showed interest in using a joint venture (JV) structure for insurance and financing, mostly to cut costs and boost productivity. The multinomial logit model reveals that these farmers are considerably different from farmers who are not interested in adopting the JV structure for a variety of sociodemographic factors, such as age and education [20]. Since Norwegian farmers are reluctant to be identified as crowdfunding recipients in public, it appears that combined campaigns with other farms, managed by intermediary groups, are the ideal method to conduct crowdsourcing (not by individual farmers) [21]. In general, farmers are ready to pay premiums of USD 42.42 per ha each growing season for rice and USD 29.52 per ha per season for wheat, with over 84% of farmers interested in acquiring area-based crop insurance [22].

In research of the reading preferences of school-age students and children of farmers, the public's interest in agricultural sustainability was discovered. The Cengkong Village farmer's son has already developed a love of reading. Books with lots of images, drawings, and color are the kind of reading material that children of farmers will find intriguing and will need. Additionally, there is still a dearth of parental encouragement for kids' reading interests. It is challenging for parents to spend time with their kids while also working on the farm, let alone engage them in reading activities. Due to the economy and labor obligations, this has happened [23]. The student's interest in continued farming is substantially influenced by the factors of parental farming experience, student age, and plant kind. Interest in farming was

found to be unaffected by three additional factors, including income from agriculture, the size of the farm, and parents' education or training in agriculture [24].

In terms of organic farming, the factors that influence farmers' interest are land area, experience, and education [25, 26]. However, farmers who are strongly educated tend not to attend non-formal education so they rarely attend counseling and training on other organic rice farming businesses [27]. In fact, extension activities can improve the skills and knowledge of farmers as well as the perception of the surrounding community for decisions to implement better organic rice farming [28,29,30]. Age-related issues, meantime, can have an impact on farmers' attitudes and methods of operation when it comes to organic rice cultivation. Additionally, the adoption of organic rice farming calls for support in the form of resources like money, technology, and equipment for production facilities that are anticipated to help enhance production yields [31].

Considering the reviewed literature that has been looked at, the author has not found a study of farmers' interest in continuing organic farming, especially in food crop commodities, namely rice. Therefore, this paper will discuss the extent of interest in continuing organic rice farming by collecting cases in the Special Region of Yogyakarta.

## 2 Research Method

Site selection in this study was carried out using purposive sampling techniques, namely deliberately choosing in the Sleman Regency area, Daerah Istimewa Yogyakarta with the consideration that farmers in the area have applied the principle of organic rice, although not all groups have done it purely or can be called organically. Farmer sampling was carried out using a simple random technique of 70 organic rice farmers from five farmer groups in four sub-districts in Sleman Regency, namely Pakem, Berbah, Sleman, and Cangkringan.

The research method used is a quantitative descriptive method. Quantitative research is a scientific research method that has complemented scientific rules in a concrete, measurable, systematic, objective, and rational manner with the aim of researching samples or populations, research instruments are used to collect data, and analyze statistical or quantitative data [32]. Quantitative descriptive research in this study will describe an overview of farmers' interest in implementing organic rice farming and what factors affect the interest of farmers in Sleman Regency.

The scoring technique uses a Likert scale with indicators: strongly disagree (1), disagree (2), neutral (3), agree (4), strongly agree (5). To evaluate whether the questionnaires were utilized in this study, statements on the Likert scale should undergo validity and reliability testing. Table 1 presents the criteria for determining the category of interest of farmers to continue organic rice farming in Yogyakarta.

**Tabel 1.** Criteria for determining the category of interest of farmers to continue organic rice farming.

| No | Score | Interest categories |
|---|---|---|
| 1 | 1.00 -1.80 | Very weak |
| 2 | 1.81-2.60 | Weak |
| 3 | 2.61-3.40 | Keep |
| 4 | 3.41-4.20 | Strong |
| 5 | 4.21-5.00 | Very powerful |

Source: [33]

The technical analysis used to answer the second objective is to find out the factors that influence farmers' interest in continuing organic rice farming using multiple linear regression.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 D_1 + \beta_8 D_2 + \beta_9 D_3 + \beta_{10} D_4 \quad (1)$$

Information:
$Y_1$ = Needs from within (score)
$Y_2$ = Social Motives $Y_3$ = Emotional (score)
$\beta_0$ = Constant
$\beta_1$ - $\beta_{10}$ = Regression coefficient
$X_1$ = Age (year old)
$X_2$ = Formal education (score)
$X_3$ = Farming experience (year)
$X_4$ = Income (IDR)
$X_5$ = Land (meter square)
$X_6$ = Number of Family Dependents
$D_1$ = Training
$D_1$=1 if there is training, $D_1$= 0 if there is no training
$D_2$ = Counseling
$D_2$=1 if there is counseling, $D_2$= 0 if there is no counseling
$D_3$ = Presence of Extension Workers
$D_3$= 1 if there is the presence of an extension worker, $D_3$= 0 if there is no presence of extension workers
$D_4$ = Incentive
$D_4$= 1 if there is incentive, $D_4$= 0 if there is no incentive

Additionally, the model's correctness is evaluated based on the value of the coefficient of determination, and the F-test and t-test are used to simultaneously and partially assess the impact of independent variables on farmers' interests [5,34].

# 3 Results and Discussion

## 3.1 Farmers' Interest in Continuing Organic Rice Farming

Farmers' interests consist of three aspects, namely the must of internal needs, social motivation, and emotional aspects. Aspects of needs from within can generate farmer interest driven by psychiatric-related needs, namely physical needs and spiritual needs as presented in Table 2.

**Table 2.** Average scores and categories on aspects of needs from within.

| Indicators | Score | Category |
|---|---|---|
| **Needs from within (Physical)** | | |
| Farmers get healthy and nutritious food | 4.76 | Very Powerful |
| Farmers get natural food | 4.59 | Very Powerful |
| Farmers avoid chemical | 3.87 | Strong |
| Farmers can live more prosperously | 4.07 | Strong |
| Farming can meet the needs of the family | 3.60 | Strong |
| **Average** | **4.18** | Strong |
| **Needs from within (Spiritual)** | | |
| Farmers live more comfortably | 4.41 | Very Powerful |
| Farmers feel optimistic about succeeding | 4.40 | Very Powerful |
| Nature looks comfortable and beautiful | 4.44 | Very Powerful |
| Successful harvest pleases farmers | 4.71 | Very Powerful |
| The production process does not kill all organisms | 4.64 | Very Powerful |
| **Average** | **4.52** | Very Powerful |

Based on Table 2, it is known that the most important signal for physical needs is consuming wholesome food, with an average score of 4.76 falling into the very strong category. These findings suggest that since food that is healthy and nutritious has the highest average score among the various categories, it is a priority in terms of physical demands. Food that is healthy and nourishing is essential to daily life. Farmers who eat healthy and nutritious food will have a healthy body so that they can carry out their daily activities properly.

On spiritual needs the most dominant indicator is successful harvest making happy with an average score of 4.71 belonging to the very strong category. Farmers feel happy when they succeed in harvesting because they can sell some of the proceeds and consume them to their own families so that they can save expenses. In addition, in the farmer comes a sense of satisfaction so that his life becomes more peaceful. Based on the overall findings, it can be inferred that eating wholesome foods is the most important predictor of internal needs.

Aspects of social motives can generate farmer interest driven by the need to gain recognition, appreciation from the surrounding environment as well as relationships with others. Table 3 presents the specific social motives in detail.

A good relationship with other farmers is the most important signal for the desire component, according to Table 3, with an average score of 4.41, placing it in the very strong group. Every organic rice farmer certainly still needs the help of other farmers such as giving each other seeds, fertilizers, pesticides, or assistance by exchanging information. Farmers now frequently lend a hand to one another, which not only fosters positive connections but also contributes to the development of organic rice. With an average score of 2.64, which includes the moderate category, the two indicators—obtaining special social status and special nicknames—showed the same results regarding approval of the status. Organic rice farmers want to assume the same social status as conventional rice farmers so that there is no difference. Organic rice and conventional rice that distinguish only their implementation so that it is felt that there is less need for privileges. The privileges in question include nicknames as millenial farmers, modern farmers and other nicknames. Based on the overall findings, it can be inferred that positive relationships with other farmers are the most important social motive indicator.

**Table 3.** Average scores and categories on aspects of social motives.

| **Indicators** | **Score** | **Category** |
|---|---|---|
| **Social Motives (Desires)** | | |
| Farming is accepted by the community | 4.33 | Very Powerful |
| The standard of living is improving | 4.33 | Very Powerful |
| Network building to other farmer groups | 4.30 | Very Powerful |
| Can build a network to agricultural extension workers | 4.17 | Strong |
| Can build a network to the Department of Agriculture | 4.21 | Very Powerful |
| Can build a network to consumers | 4.04 | Strong |
| Can build good relationship with other farmers | 4.41 | Very Powerful |
| Can build on decision-making | 4.01 | Strong |
| **Average** | **4.23** | **Very powerful** |
| **Social Motives (Approval of status)** | | |
| Can get special social status | 2.64 | Keep |
| Can get a special nickname | 2.64 | Keep |
| **Average** | **2.64** | **Keep** |

The emotional aspect can generate farmer interest derived from the intensity of a person in providing attention while getting motivation on a certain activity or object. Table 4 provides more information on this.

Based on table 4, it is known that the quality of organic rice, with an average score of 4.73 including the very strong category, is the most significant signal in the driving sub-aspect. According to data from the field, organic rice is superior than conventional since it has more pitted seeds despite taking longer to harvest. [35]. A pitted seed is a seed that contains, is not hollow and not empty. Better quality is the most important thing to motivate farmers because over time people will prefer organic rice with health considerations.

**Table 4.** Average scores and categories on the emotional aspect.

| Indicators | Score | Category |
|---|---|---|
| **Emotional (Driving)** | | |
| Quality of organic rice | 4.73 | Very powerful |
| The selling price is more expensive | 4.39 | Very powerful |
| Putting health first | 4.66 | Very powerful |
| Budget savings | 3.91 | Strong |
| Rarely fails/small risk | 4.03 | Strong |
| **Emotional (Attention)** | | |
| Studying organic rice | 4.46 | Very powerful |
| The condition of the rice fields and their surroundings | 4.27 | Very powerful |
| Active participation in training | 4.20 | Strong |
| Active participation in farmer groups | 4.36 | Very powerful |
| Extension workers provide information and practices in the field | 4.23 | Very powerful |

In the sub-aspect of attention, the most dominant indicator is that the successful harvest makes happy with an average score of 4.71 including the very strong category. Farmers can learn organic rice independently, from extension workers, farmer groups and the agricultural department. Farmers who intend to study organic rice signal that interest in continuing organic rice is strong. The more often farmers study, the more knowledge and understanding they have, it is hoped that organic rice farming will grow. Based on the overall results, conclusions can be drawn if the most dominant indicator on the emotional factor is the quality of organic rice.

**Table 5.** Obtaining Farmer Interest Scores in Organic Rice Farming.

| Aspects of Interest | Score | Category |
|---|---|---|
| Needs from within | 4.35 | Very Powerful |
| Social Motives | 3.90 | Strong |
| Emotional | 4.32 | Very Powerful |

Table 5 shows that, with a score of 4.35 and a very strong category, the need from inside is the most important element influencing desire. Farmers prioritize needs from within because there are physical and spiritual needs needed in daily life such as needing healthy and nutritious food.

### 3.2 Factors Affecting Farmers' Interest in Continuing Organic Rice Farming

The analysis's findings show that experience, income, land area, and the number of family dependents are the variables that have the most impact on organic rice producers' interest in meeting their own requirements. The f test findings simultaneously received a significance value of $0.024 < 0.05$, leading to the conclusion that the independent variable simultaneously has a substantial impact on the dependent variable, i.e., the farmer's interest in needs-related elements. A value of 0.157 was found for the Adjusted R Square when the coefficient of determination on the internal needs' component was tested. Accordingly, 15.7% of a dependent variable can be described by an independent variable, while the rest 84.3% can be explained by other factors not included in the model.

Farming experience has a significant effect with a significance of 0.023 < 0.05 and a confidence level of 95% so that $H_0$ is rejected and $H_1$ is accepted. The regression coefficient has a value of 0.128 positive value which means unidirectional. This research is in line with farming experience has a significant effect with a significance of 0.023 < 0.05 and a confidence level of 95% so that $H_0$ is rejected and $H_1$ is accepted. The regression coefficient has a value of 0.128 positive value which means unidirectional. This research is in line with [25] that experience had a significant effect with a yield of 0.000 < 0.01. Based on the needs of the farmer requires old organic rice farming experience because the longer the farming business that has been carried out, the more insight and ability of farmers to develop organic rice farming.

**Table 6.** Factors influencing the farmer's interest in aspects of needs from within.

| Variables | Regression Coefficient | Significance |
|---|---|---|
| Age | 0.074 | 0.104 |
| Formal Education | 0.217 | 0.644 |
| Experience | 0.128** | 0.023 |
| Income | 0.587** | 0.039 |
| Land | 0.003*** | 0.007 |
| Number of Family Dependents | 0.765** | 0.041 |
| Dummy training | 0.819 | 0.312 |
| Dummy counseling | 0.223 | 0.902 |
| Dummy Attendance of Extension Workers | 0.419 | 0.844 |
| Dummy incentive | 1.201 | 0.328 |
| R-Squared = 0.279 | F-Hit = 2.285 | |
| Adj R-Squared = 0.157 | Prob (F-Hit) = 0.024 | |

Information: *** Significant at α = 1%; *Significant at α = 10%; ** Significant at α = 5%

Income has a significant effect on farmers' interest with a significance of 0.039 < 0.05 and a confidence level of 95% so that $H_0$ is rejected and $H_1$ is accepted. The regression coefficient has a value of 0.587 positive value which means unidirectional. This research is in line with [36] that income has a significant effect on farmers' interest with a significance of 0.028 < 0.05. Income has a significant effect because through organic rice farming farmers hope that the needs from within can be met, such as achieving a more prosperous life and meeting daily needs.

Land area has a significant effect on farmers' interest with a significance of 0.007 < 0.01 and a confidence level of 99% so that $H_0$ is rejected and $H_1$ is accepted. The regression coefficient has a value of 0.003 positive value, which means unidirectional. This research is in line with [25] that the land area has a significant effect on the interest of farmers with a significance value of 0.018 < 0.05. Land area affects interest because the wider the land, the greater the opportunity to increase rice production so that it is more guaranteeing to be able to meet the needs of farmers.

The number of family dependents had a significant effect on farmers' interest with a significance of 0.041 < 0.05 and a confidence level of 95% so that $H_0$ was rejected and $H_1$ was accepted. The regression coefficient has a value of 0.765 positive value, which means unidirectional. This research is in line withn [37] that the number of family dependents had a significant effect on farmers' interest with the result of t counting 11.6082 > t table 1.6939. Based on information from the field, the number of family dependents has an effect because the more dependents, the more physical and spiritual needs are met, so that it will affect the interest of farmers in continuing the organic rice farming business.

Age, experience, and money are significant influences on farmers' interest in social causes, according to the examination of these elements. Inferring that independent factors simultaneously have a substantial impact on the variable of interest in emotional

characteristics is possible from the results of the f test, which got a significance value of 0.034 < 0.05. The adjusted R square value for the results of testing the coefficient of determination on social motives was 0.143. This suggests that the independent variable can explain the dependent variable by 14.3%, while other factors that are not part of the model can explain the remaining 85.7%.

Age has a significant effect on farmers' interest with a significance of 0.020 < 0.05 and a confidence level of 95% so that H0 is rejected and H1 is accepted. The regression coefficient has a value of 0.641 positive value which means unidirectional. This research is in line with [37] that age had a significant effect on farmers' interest with t counting 24.40 > t table 1.69. In the aspect of social motives, both young and old farmers want organic rice farming to be supported or recognized by the community without giving special awards.

**Table 7.** Factors influencing farmers' interest in aspects of Social Motive.

| Variable | Regression Coefficient | Significance |
|---|---|---|
| Age | 0.641** | 0.020 |
| Formal Education | 0.008 | 0.978 |
| Experience | 0.598* | 0.077 |
| Income | 0.534*** | 0.008 |
| Land | 0.001 | 0.361 |
| Number of Family Dependents | 0.035 | 0.875 |
| Dummy training | 0.355 | 0.471 |
| Dummy counseling | 0.006 | 0.824 |
| Dummy Attendance of Extension Workers | 0.022 | 0.898 |
| Dummy incentive | 0.857 | 0.253 |
| R-Squared = 0.267 | F-Hit =2.149 | |
| Adj R-Squared = 0.143 | Prob (F-Hit) = 0.034 | |

Description: *** Significant on α = 1%; ** Significant on α = 5% *Significant on α = 10%;

Farming experience has a significant effect on farmers' interest with a significance of 0.077 < 0.1 and a confidence level of 90% so that $H_0$ is rejected and $H_1$ is accepted. The regression coefficient has a value of 0.598 positive value, which means unidirectional. This research is in line with [38] that experience had a significant effect on farmers' interest with t counting 2,605 > 1,676 t table. Farmers who have been running an organic rice farming business for many years already have a lot of experience so that they can convince the surrounding community that the organic rice farming business is worth continuing.

Income has a significant effect on farmers' interest with a significance of 0.008 > 0.01 and a confidence level of 99% so that $H_0$ is rejected and $H_1$ is accepted. The regression coefficient has a value of 0.534 positive value which means unidirectional. This research is in line with [39] that income has a significant effect on farmers' interest with a significance value of 0.012 < 0.05. The stronger the income earned by farmers from organic rice farming can prove to the surrounding community that it is not supportive if the organic rice farming business is feasible to continue.

Age, formal education, experience, and land area are the characteristics that affect organic rice farmers' interest in the emotional element, according to the t test results. It is clear from the results of the F test that independence concurrently has a considerable impact on the variable of interest in the emotional component, with a significance value of 0.017 < 0.05. The adjusted R Square value for the coefficient of determination test results was 0.172. This indicates that the independent variable can account for 17.2% of the dependent variable's variance while the remaining 82.8% of the variance is accounted for by other factors not included in the model.

Age has a significant effect on farmers' interest with a significance of 0.007 < 0.01 and a confidence level of 99% so that $H_0$ is rejected and $H_1$ is accepted. The regression coefficient

has a value of 0.090 of positive value which means it is unidirectional. This research is in line with [34] that age had a significant effect on farmers' interest with a significance value of 0.010 < 0.05. Young farmers have a strong physique more than older farmers. Older farmers tend to have a good psychic like when making decisions compared to young farmers. Young and old farmers have different ways of paying attention to organic farming.

**Table 8.** The results of the analysis of factors affecting interest in the emotional aspect.

| Variable | Regression Coefficient | Significance |
|---|---|---|
| Age | 0,090*** | 0,007 |
| Formal Education | 0,613** | 0,022 |
| Experience | 0,672** | 0,04 |
| Income | 0,262 | 0,189 |
| Land | 0,002** | 0,046 |
| Number of Family Dependents | 0,022 | 0,836 |
| Dummy training | 0,412 | 0,746 |
| Dummy counseling | 0,46 | 0,721 |
| Dummy Attendance of Extension Workers | 0,098 | 0,948 |
| Dummy incentive | 0,015 | 0,986 |
| R-Squared = 0,292 | F-Hit = 2,437 | |
| Adj R-Squared = 0,172 | Prob (F-Hit) = 0,017 | |

Description: *** Significant on α = 1%; ** Significant on α = 5%; *Significant on α = 10%;

Formal education had a significant effect on farmers' interest with a significance of 0.022 < 0.05 and a confidence level of 95% so that $H_0$ was rejected and $H_1$ was accepted. The regression coefficient has a value of 0.613 positive value, which means unidirectional. This research is in line with [39] that formal education had a significant effect on farmers' interest with a significance of 0.015 < 0.05. Farmers who are strongly educated generally have more extensive knowledge so that they can apply innovations. The level of education will also affect the mindset of farmers regarding how to pay attention to organic rice, it is hoped that they can apply the right technology to increase production yields.

Farming experience has a significant effect on farmers' interest with a significance of 0.040 < 0.05 and a confidence level of 95% so that $H_0$ is rejected and $H_1$ is accepted. The regression coefficient has a value of 0.672 positive value which has a unidirectional meaning. This research is in line with [36] that experience had a significant effect on farmers' interest with a significance value of 0.017 < 0.05. Farming experience affects interest because the longer the organic rice farming business is carried out, the more knowledge and skills you have. Based on this, it can be concluded that farmers can pay better attention to organic rice farming.

Land area has a significant effect on farmers' interest with a significance of 0.046 < 0.05 and a confidence level of 95% so that $H_0$ is rejected and $H_1$ is accepted. The regression coefficient has a value of 0.002 positive value, which has a unidirectional meaning. This research is in line with [26] that the land area has a significant effect on farmers' interest with a sig value of 0.000 < 0.05. Large land can produce strong production if assisted by good farmer understanding and the application of correct technology.

## 4 Conclusions and Recommendations

The desire of farmers to continue organic rice farming falls into the very strong category with an average score of 4.35 in the internal needs category, the strong category with an average score of 3.90 in the social motives category, and the very strong category with an average score of 4.32 in the emotional motives category.

Age, formal education, non-formal education, farming experience, income, land area, frequency of presence of extension workers, help, and the number of family dependents are the factors that affect farmers' total interest in both the aspects of internal needs, social motives, and emotions. In the aspect of needs from within the factors that affect interest are experience, income, land area, and the number of family dependents, in social motives are age, experience and income while in emotional is age, formal education, experience and land area. Therefore, extension worker has a very important role to increase the interest of organic rice farmers. Extension workers can provide information related to organic rice farming so that it can increase the knowledge of farmers. Training is one way that can increase the abilities and skills of farmers so that it is sought to hold training regularly while still complying with health protocols during a pandemic.

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