

Research Article

Analysis of the Social Capital Toward Farmers' Independence in the Integrated Farming in the Agrowisata Urban Village of Rumbai District Pekanbaru City

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Abstract.

Farmers in the Agrowisata Urban Village use an integrated farming system, and the social capital of farmers can influence the integrated farming system for research objectives, namely, to analyze: (1) the level of integrated agricultural farmer empowerment in the Agrowisata Urban Village, Rumbai District and (2) the relationship of social capital with the independence of farmers integrated in the Agrowisata Urban Village, Rumbai District. This study used a census research method with a population of 45 farmers using primary and secondary data. Data were analyzed using the Likert scale analysis and multiple linear regression. The results showed that the empowerment of integrated agricultural farmers was in the high category with an average of 4.18. Human resources, a productive economy, and institutions owned by integrated agricultural farmers are also in the high category. The relationship of social capital with the independence of integrated agricultural farmers in the Agrowisata Urban Village indicated that norms, productive economy, and institutions have a positive effect or have an influence on the independence of integrated agricultural farmers in the Agrowisata Urban Village Rumba District.

Keywords: integrated agriculture, social capital, empowerment, independence

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Published: 2 October 2024

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Selection and Peer-review under the responsibility of the 4th ICONISS Conference Committee.

1. Introduction

Indonesia is known to rely largely on the agricultural sector both as a livelihood source and a fulfillment of necessities, as is the case in Riau Province. Riau Province is one of the provinces in Indonesia located in the central part of the Sumatra Island, which has an area of 87.024 km², where agriculture is a very important sector as a driving force of the economy. The PDRB of agriculture, forestry, and fishing in Riau Province itself is quite large, which is seen in 2020 at 26.63% [1]. The agricultural sector has a very large contribution to the Riau province. The size of Riau's GRDP cannot be separated

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from the contribution of this agricultural sector, because Riau Province still relies on the agricultural sector to increase its Regional Original Income (PAD).

Integrated agriculture is an agricultural system that integrates agricultural sub-sectors such as food crops, livestock, and fish to increase the productivity of land resources, independence, and welfare of farmers sustainably manner. Siswati, L. and Rini N. state that “integrated agriculture can increase farmers’ income and welfare with horticultural crop and livestock patterns” [2]. Farmers’ income is influenced by several factors which include; age, education, land areas, type of crop, type of livestock, length of farming, number of family members, and workforce.

Recently, integrated agriculture has been well developed in Pekanbaru because the Pekanbaru Government formed a Urban Villagethat focused on agriculture, especially integrated agriculture, namely the Agrowisata Urban Village in 2019. This is due to the small amount of food farming land in Pekanbaru, and Agrowisata Urban Village has quite a large amount of land that can be used to carry out agricultural activities, so the Agrowisata Urban Village was chosen as the Village to develop integrated agricultural activities. Because of this, the researchers also chose the Agrowisata Urban Village as the location for his research. Agrowisata Urban Village is one of the sub-districts in Agrowisata Urban Village West Rumbai District, Pekanbaru City, Riau Province, Indonesia. This Urban Villagewas expanded from the Palas Urban Village area during the regional expansion in Pekanbaru City in 2016. 45 families implementing an integrated agricultural system.

Social capital is a resource that arises from the results of interactions within a community/group, whether between individuals and individuals, individuals and groups, or groups and groups that give rise to emotional bonds in the form of trust, reciprocal relationships, social networks, and values. values and norms that form a community structure that is useful for coordination and cooperation in achieving common goals. Social capital is an important aspect that influences farmers’ empowerment and independence.

Based on the explanation above, because the social capital existing in integrated agricultural farmers is one of the important factors that support empowerment and independence of these farmers, it is important to research how social capital influences the empowerment and independence of farmers. It is hoped that it can help increase economic development in the integrated agricultural sector in the Agrowisata Urban Village.

2. Research Methods

This research uses the census research method. Census research is research that takes one population group as a sample as a whole and uses a structured questionnaire as the main data collection tool to obtain specific information Usman & Akbar [3]. Sugiyono defines population as a generalized area consisting of objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn [4]. Population is not only the number of objects or subjects studied, but also all the characteristics and traits possessed by these objects or subjects. The in population this research is integrated agricultural farmers located in the Agrowisata Urban Village with a population of 45. This research uses a sampling method using a saturated sampling technique (census), so the number of samples is 45. This research uses two data sources, namely primary and secondary. According to Sugiyono [4], primary sources are data sources that directly provide data to data collectors, while secondary data are sources that do not directly provide data to data collectors, for example through other people or documents. Secondary data is obtained from related agencies. such as Pekanbaru City BPS, Agrowisata Urban Village Head Office, and other related agencies.

3. Results and Discussions

3.1. Integrated agricultural farmers empowerment

The differences between integrated agricultural farmers in the Agrowisata Urban Village, Rumbai District, Pekanbaru City with indicators of human resources, economics of integrated agricultural products, and institutions are presented in Table 1

TABLE 1: Distribution of value for empowerment integrated agricultural farmer.

No	Empowerment Indicator	Average Score	Category
1	Human resources	4.18	High
2	Integrated agricultural productive economy	4.20	High
3	Institution	4.16	High
Average		4.18	High

Based on Table 1, it can be seen that the productive economic and institutional parameters of integrated agricultural farmers in the Agrowisata Urban Village are also in

the high category, namely 4.20 and 4.16, so that the productive economy and institutions owned by integrated agricultural farmers are good. recapitulation of the empowerment of integrated agricultural farmers shows that the human resources possessed by integrated agricultural farmers in Agrowisata Urban Village have a score of 4.18 and are included in the 'high category'. It means that most integrated agricultural farmers have good human resources.

Overall, the empowerment of integrated agricultural farmers has a score of 4.18 and is in the "high category". The farmer empowerment process is a continuous program, farmer empowerment means developing conditions and situations in such a way that farmers have the power and opportunity to develop and improve their own lives.

3.2. The influence empowerment on independence of integrated agriculture farmer in the agrowisata Rumbai Village, Rumbai District

Analysis of the influence of empowerment on the independence of integrated agricultural farmers uses statistical regression tests where multiple linear regression analysis is a form of linear regression analysis where there is more than one independent variable. Regression analysis is an analysis that can be used to measure the effect of the independent variable (X) on the dependent variable (Y) using a general equation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e \quad (1)$$

Based on Table 2, it can be seen that the constant value (α value) is 27.353, the trust (value of β) is -1.121, the Norm value (value of β) is 1.216, the network value (value of β) is -0.437, the human resources value (β) is -0.364, productive the economic value (value of β) is 0.696, and institutional the value (value of β) is 0.885. So the multiple linear regression equation can be obtained as follows:

$$Y = 27.353 + (-1.121 X_1) + 1.216 X_2 + (-0.437 X_3) + (-0.364 X_4) + 0.696 X_5 + 0.885 X_6 + e \quad (2)$$

it mean:

1) The constant value of farmer independence (Y) is 27,353 which states that the variables X1, X2, X3, X4, X5, X6 or trust, norms, networks, human resources, productive economy, and institutions are zero, then farmer independence is 27,353. This means that If it is not influenced by social capital and empowerment, farmer independence is 27,353.

2) The X1 coefficient of -1.121 means that every time there is an increase in variable A for 1% then the farmer's independence increases by -1.121 or vice versa, every time there

TABLE 2: Results of multiple linear regression analysis.

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27.353	3.139		8.713	.000
	Trust	-1.121	.306	-.978	-3.659	.001
	Norm	1.216	.506	.694	2.404	.021
	Network	-.437	.364	-.299	-1.201	.237
	Human Resouces	-.364	.834	-.133	-.437	.665
	Productive Economy	.696	.708	.285	.982	.332
	Institutions	.885	.719	.345	1.231	.226

a. Dependent Variable: farmer independence

is a decrease in the trust variable (X1) by 1%, the farmer's independence decreases by -1,121. This occurs because the higher the individual level of farmers, namely the greater trust in their fellow integrated farming members, the lower the farmer's independence because they are highly dependent on their fellow integrated farming farmer friends. Another thing that causes a decrease in the level of farmer independence is farmers' trust at the level of social relations, namely trusting extension workers. If integrated agricultural farmers only trust their agricultural instructors, then if there is information or knowledge that is not from the instructor, farmers do not believe it and choose to depend on the instructor. agriculture, this would reduce the independence of integrated agricultural farmers.

Furthermore, trust at the social system level is trusting farmers from outside the sub-district. If integrated agricultural farmers increase their trust in farmers outside the sub-district, this will reduce farmers' independence because farmers will depend on information from outside the Urban Village which can even involve different methods of caring for their plants due to the differences in land types and seeds, fertilizer and others. Furthermore, trust in the level of social care, the higher the level of trust of farmers in lending assistance in the form of money to other farmers, the lower the level of independence of farmers who are lent money will be because they will depend on other people's money. Lastly, trust in mutual assistance, the higher the level of trust in assisting to other farmers, the lower the level of farmer independence will be because they are used to being helped by other farmers if they need help.

3) The X2 coefficient of 1.216 means that every time there is an increase in the variable X2 (norm) by 1% then the farmer's independence increases by 1,216 or vice versa, every time the variable X2 (norm) decreases by 1%, the farmer's independence decreases by 1,216. Increasing the norm by 1% will increase the independence of farmers by 1,216. This happens because firstly, the increasing number of farmers who obey the existing rules in agriculture will increase the independence of farmers in integrated farming systems, secondly, the increasing cultural values will increase the independence of farmers. because farmers who have good cultural values such as working together to repair damaged roads, farmers can do it themselves, without waiting for assistance from the government.

Third, namely social norms in competition, the increasing competition between integrated agricultural farmers will increase the independence of farmers, this happens because farmers compete in a healthy manner, for example fellow integrated agricultural farmers have one type of livestock and have appropriate agricultural equipment, so other farmers do not want to lose money and they also increase the types of livestock, and try to have good agricultural equipment because it will increase the independence of farmers. And the last norm in the value of honesty, the higher the level of farmer honesty, the greater the farmer's independence will be, for example, honest farmers share tools, use the tools well, and return the equipment to its original condition, so integrated agricultural farmers will be more independent and not want to borrow tools from other farmers.

4) The X3 coefficient of -0.437 means that every time the variable X3 (network) increases by 1% then the farmer's independence increases by -0.437 or vice versa, every time the variable X3 (network) decreases by 1%, the farmer's independence decreases by -0.437.

An increase in the network by 1% means that farmer independence decreases by 0.437, this happens because if there are farmers who increase their initiative to act to solve problems, it will make other farmers less independent and wait for problem - solving from farmers who usually solve their problems. Furthermore, if there are farmers who increasingly provide information to other integrated agricultural farmers, this will result in other farmers not being able to independently seek information themselves, only remaining silent and waiting for information from farmers who usually only provide information.

5) The X4 coefficient of -0.364 means that every time there is an increase in variable X4 (human resources) by 1% then the farmer's independence increases by -0.364 or vice versa, every time the variable X4 (human resources) decreases by 1%, the farmer's independence decreases by -0.364. If human resources increase by 1%, farmers' independence will decrease by 0.364.

6) The X5 coefficient of 0.696 means that every time there is an increase in the variable X5 (productive economy) by 1%, Farmers' independence increases by 0.696 or vice versa, every time there is a decrease in variable X5 (productive economy) by 1%, farmer independence decreases by 0.696. The increase of farmers' productive economy by 1% will increase farmers' independence by 0.696. This happens because income from farmers' integrated agricultural businesses increases so the farmers can buy their agricultural equipment, buy their superior seeds without waiting for assistance from the government anymore.

7) The X6 coefficient of 0.885 means that every time the variable X6 (institutional) increases by 1% then Farmers' independence increases by 0.885 or vice versa, every time there is a decrease in variable X6 (institutional) by 1%, the independence of farmers decreases by 0.885. The increasing institutions by 1% farmers' independence will also increase by 0.885. This can happen because if the institutions that integrated agricultural farmers have, such as farmer groups, increase so they can help integrated agricultural farmer businesses, then farmers will become more independent and no longer dependent on the government to solve every problem in agriculture.

From the description above, it can be concluded that norms, productive economy, and institutions have a positive influence on the independence of integrated agricultural farmers in the Agrowisata Urban Village, Rumbai District. Meanwhile, trust, networks, and human resources have negative effects or do not effect the independence of integrated agricultural farmers.

4. Conclusion

The empowerment of integrated agricultural farmers in the Agrowisata urban village, Rumbai district is in the high category with an average of 4.18. Human resources, productive economy, and integrated agricultural farmer institutions are in the high category. The relationship between social capital and the independence of integrated agricultural farmers in the Agrowisata urban village indicates that norms, productive

economy, and institutions have a positive influence or influence on the independence of integrated agricultural farmers in the Agrowisata urban villange, Rumbai district. Meanwhile, trust, networks, and human resources have a negative effect or do not effect the independence of integrated agricultural farmers.

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