

Entrepreneurship Characters of Farmer and Rice Farming Performance in Bantul

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Abstract. This study aims to know the entrepreneurial character of farmers, analyze farm performance, and analyze the relationship between entrepreneurial character of farmers and business performance of rice farming in Sewon District. The sample in this study was a rice farmer on a Sewon District as many 40 people were taken proportional random sampling. To analyze the entrepreneurial character using descriptive analysis based on data that has been analyzed with an assessment using a Likert scale. Farming performance is measured by using income and profit. Then to find out the relationship of entrepreneurial character of farmers and performance of rice farming using Spearman Rank correlation analysis. The result of the analysis show that the entrepreneurial character of rice farmer in Sewon District is included in the strong category with a percentage score of 84%. Farming rice in Sewon District in the 2021 planting season generates an income of IDR 6,334,762 and a profit of IDR 5,891,198 so that the farm is feasible to operate. The entrepreneurial character of farmers has a positive relationship with the performance of rice farming in Sewon District Bantul Regency.

1 Introduction

Rice is one of the important commodities in the food crops sub-sector, as a food crop is consumed by around 90% of the total population for daily main food [1]. Rice has a role not only as a staple food, but also as a source of the economy for most farmers and plays a role in various national social and political aspects. The Indonesian economy can be said to be a rice economy [2]. The need for rice will continue to increase in quantity and quality in line with the development of the population and the quality of life of the people.

Rice commodity agricultural products in the Province of the Special Region of Yogyakarta experience growth every year. In 2021, according to the Central Bureau of Statistics for the Special Province of Yogyakarta the rice harvest area will be 108,462 thousand hectares with a production level of 565,032 thousand tons of dry milled grain (GKG). For Regencies/Cities that have the lowest level of GKG rice production, it is in the City of Yogyakarta. The biggest increase or development in the amount of GKG rice

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production in 2021 was in Bantul Regency, which experienced an increase of 24.570 thousand tons or 20.05% from 2020.

Increases and decreases in rice production results are caused by problems experienced by farmers in conducting rice farming. One of them is the selling price of rice, which is limited by government policy, namely in the Regulation of the Minister of Trade of the Republic of Indonesia (PERMENDAG) Number 24 of 2020 as a technical ministry that regulates food prices, so that rice prices cannot be raised or lowered carelessly by farmers (Indonesia, 2022). Nutritional problems affect the life and death of a nation (according to Sukarno, 1st president of Indonesia), therefore there is a need to increase efforts in the food crop subsector in order to increase the amount of food production and increase national income. [3]In addition, the agricultural sector has a high level of risk and uncertainty, because besides the skills and experience possessed by farmers, another factor that determines success is nature. The role of food crops has been proven empirically both in normal economic conditions and during times of crisis, food crops as a basic need always receive high priority in national economic development[4] Therefore, one of the important aspects in improving rice farming is that farmers must have the characteristics and competence in running farming. The characteristics and competence of farming is an illustration of the ability of farmers to manage farming based on technical planning of plant cultivation.

Characteristics of farmers and farming competencies show the performance of farmers in running farming in a better and sustainable manner. Farming performance which includes income and profits earned by farmers in their farming. In this study, as indicators of the characteristics of farmer entrepreneurs, the level of achievement motivation, future orientation skills, leadership skills, extensive business networks, and ability to deal with change were used, which were analyzed in relation to the performance of rice farming in Bantul Regency. The competence of individual farmers is not the same, depending on the entrepreneurial characteristics possessed by farmers.

Based on the above background, this research examines the relationship between entrepreneurial character possessed by farmers and the performance of rice farming in Bantul Regency so that farmers still choose to run rice commodity farming compared to other commodities. This study purposed to determine the entrepreneurial character of rice farmers, to analyze the performance of farming based on income and profits, and to analyze the relationship between entrepreneurial character and the performance of farming rice farmers in Bantul Regency.

2 Method

Table 1. Number of Rice Farmers in Sewon District in Each Village

Ward	Farmer
Panggunharjo	622
Bangunharjo	985
Timbulharjo	1647
Pendowoharjo	1243
Amount	4,497

The method used in this research is descriptive quantitative, that aims to describe systematically, factually, accurately regarding the circumstances and characteristics of an object of research. Meanwhile, the quantitative method to obtain data occurred in the past or currently opinions, characteristics and beliefs from samples obtained from certain populations. The selection of this research location was determined deliberately (purposive), this technique is a sampling technique with certain considerations. Sewon District was chosen as the research location because Sewon District is a District in Bantul Regency which has the

highest total harvested area for rice in 2021 of 3019.5 ha and has the highest increase in harvested area reaching 508.4 ha from 2020. The sampling technique in this study it uses the method proportional random sampling. The sample that will be the research target is 40 rice farmers who are actively involved in rice commodity farmer groups in Sewon District.

Based on table 1, the number of rice farmers in Sewon District is 4,497 people divided into four villages. The distribution of the sample can be done using the proportional allocation formula as follows [5].

$$n_i = \frac{N_i}{N} \times n \quad (1)$$

Information:

n_i = subgroup sample

N_i = total population of each group

N = Total number of population

n = number of samples

Table 2. Allocation of Respondents Distribution

Ward	Farmer
Panggunharjo	5
Bangunharjo	9
Timbulharjo	15
Pendowoharjo	11
Number of Respondents	40

Based on table 2, the results of calculating proportional allocations obtained the number of research respondents as many as 40 people divided into four villages in Sewon District. In this study, two types of data were used to assist in the completeness of the research data. The primary data in this study are the profiles of respondents, implicit costs, explicit costs, the amount of implicit cost, explicit cost, the rice commodity production, land area, labor within and outside the family, and the entrepreneurial character of the respondents. Secondary data in this study were the general condition of the research area, the level of rice production, and the general state of agriculture. Secondary data obtained by collecting data and literature from related agencies.

Data analysis was performed using descriptive analysis, to measure the level of entrepreneur character of farmers using a *scalelikert*. To determine the category in the entrepreneurial character of rice farmers in Sewon District, the interval calculation results that have been calculated previously are used. The following determines the score of the entrepreneur character of rice farmer in Sewon District.

Table 3. Determination of the Entrepreneur Character Level of Rice Farmer in Sewon District

Score	Score Achievement	Entrepreneurial Character Level
1-5	1 – 1.7	Very weak
	1.8 – 2.5	Weak
	2.6 – 3.3	Enough
	3.4 – 4.1	Strong
	4.2 - 5	Very strong

Validity and reliability tests were carried out on the instruments used so that the instruments were in accordance with the research objectives [6]. The results of the validity test on the indicator have a calculated r value greater than r table with a significance of 5%, thus indicating that all questions in the questionnaire used in this study are declared in the

valid category so that the questionnaire can be used in this study. Then the reliability test results have value *Cronbach's Alpha* > 0.6 So that it can be integrated that all the components of the questions in the research questionnaire used have a high level of reliability so that they are suitable for use as material in research.

Then a farming analysis was carried out which included total costs, revenues, income, and profits of rice farming. ([7,8]) Followed by correlation analysis *rank Spearman* to determine the strong relationship between entrepreneurial character and farming performance which includes income and profits [9].

3 Results and Discussions

Table 4. Rice Farmers' Land Area in Sewon District, Bantul Regency

Land Area (m ²)	Number of people	Percentage (%)
350 – 1958	26	65
1959 – 3567	9	23
3568 – 5176	2	5
5177 – 6785	2	5
6786 – 8394	-	-
8395 – 10000	1	3
Amount	40	100

The area of rice farming land in one growing season in Sewon District varies from 350m² to 1.0000 m². The average area of land owned by rice farmers in Sewon District is 2,023 m². As for farming costs and revenue, as presented in table 5 and table 6.

Table 5. Total Cost of Rice Farming in Sewon District, Bantul Regency

Total cost	Value (IDR)
Explicit Cost	1,780,826
Implicit Cost	456,717
Amount	2,224,390

Table 6. Revenue of Rice Farming in Sewon District

Description	Value
Rice Production (kg)	991
Selling Price (IDR/kg)	8,187
Total Admissions	IDR 8,115,588

Based on tables 5 and 6, it can be calculated that the income from rice farming is IDR 6,334,762. The profit earned is IDR 5,891,198. so that it can continue to run and develop the potential of the land owned by rice farmers in Sewon District. In line with the results of research [10] about the income analysis of tobacco farmers in Menggoro Village, Tembarak District, it shows that the income received by farmers are varies, it depends on how much land the farmer has, the larger the farmer's land, the higher the income.

3.1 Farmer entrepreneurial character

Entrepreneurial characteristics have an important role in shaping a person's mental attitude, innovativeness, creativity, courage, high morale, perseverance which synergizes with knowledge, skills, and vigilance in determining business success, this also applies to rice

farmers. Farmers are required to always be optimistic, think positively, and have a creative spirit to deal with all circumstances they may meet within the scope of their business (Essel, Adams, & Amankwah, 2019[11]) There are 5 indicators of entrepreneurial character used in this study, namely achievement motivation, future orientation, leadership spirit, business network and ability to deal with change.

3.1.1 Achievement motivation

The achievement motivation of rice farmers in Sewon District is very strong category with an average score is 4.76. This means that rice farmers in Sewon District have very strong achievement motivation in farming. This is in line with the results of research on the characteristics and behavior of Muntok pepper farmers in South Bangka Regency. Pepper farmers have high achievement motivation who have a willingness to continue to learn from experience, are involved in farming training, and are highly motivated by farmers in applying new methods related to pepper cultivation techniques [12].

3.1.2 Orientation to the Future

The average score of future-oriented indicators owned by farmers is 3.75 which is included in the strong category. This indicator is seen from several criteria such as skills, market orientation, and planning. Farmers already have thoughts about the sustainability of the farming that is being carried out, and planning what to do. The results of this study are the same as research on the relationship between entrepreneurial characteristics and the success of horticultural farming in Lembang District, which has a future-oriented character score of 64%. With a high future-oriented character, it can be used as a strength to deal with the progress of innovations that are applied in future farming [13].

3.1.3 Leadership spirit

The leadership character of rice farmers is the very strong category with an average score is 4.56. It mean having a very good leadership spirit. Evidenced by the attitude of farmers, during the harvest season not all farmers receive the expected yields and rice prices cannot be raised arbitrarily thereby hampering farmers' income, but rice farmers in Sewon District do not give up easily and have high self-confidence and dare to take risks to continue to plant rice commodities again.

In research on the entrepreneurial level of pineapple farmers in Belik Pematang District, it was stated that leadership is a key factor for an entrepreneur. With excellence in the field of leadership, an entrepreneur pays great attention to goal orientation, work relationships, and effectiveness [14]. This supports rice farmers in Sewon District who have very strong leadership characteristics to achieve success in their business.

3.1.4 Business network

The character of the business network ownership of rice farmers in Sewon District is the strong category with an average is 4.00. It mean that the majority of farmers of paddy in Sewon District has a strong business network in developing its farming business. A strong business network has a big role in the development of farming so that it can improve the farmer's economy, because with a strong business network the process of exchanging information will be wider. This is in accordance with research conducted by [15] regarding middlemen in a mangosteen fruit business in Leuwiliang District, Bogor Regency.

Middlemen have an extensive network with the extent of the network owned by middlemen, they are easy to sell goods. The existence of social networks facilitates the process of marketing an item. This also happens to rice farmers in Sewon District who have many relationships in developing their farming business. Having a wide business network will make it easier for farmers to develop their farming business,

3.1.5 Ability to deal with change

The character facing change has a point of 3.87 and belongs to the strong category. This is because rice farmers in Sewon District have high thoughts and enthusiasm in developing creativity to face the times. The ability of farmers to use communication technology plays an important role in an increasingly modern era like today. The results of research on the characteristics of farmers and their relationship with the competence of smallholder farmers in Sinar Sari Village show that the use of information media has a significant relationship with the marketing of business results. This illustrates that to see the development of farmer's markets requires information media [16]. This is also needed by rice farmers in Sewon sub-district because the more farmers who can take advantage of communication technology, the more information they get about market developments. Farmer entrepreneurial character scores can be seen in full:

Table 7. Scores of Entrepreneurial Characteristics of Rice Farmers in Sewon District

No	Variable	Score	Implementation Score		
			Average	Total	Achievement
Achievement motivation					
1.	Need for Achievement	4.80	4.76	9.52	95%
2.	Execution	4.72			
Future Oriented					
3.	Skills	4.32			
4.	Market Orientation	3.05	3.75	11.25	75%
5.	Planning	3.87			
Leadership					
6.	Independence	4.52	4.56	18.27	91%
7.	Confidence	4.62			
8.	Organizing	4.67			
9.	Dare to Take Risks	4.45			
Business Network					
10.	Farmers Group	3.55			
11.	Community Support	4.62	4	12.02	80%
12.	Family Support	3.85			
Facing Change					
13.	IT Development	3.50	3.87	19.37	78%
14.	Creativity	3.62			
15.	Input Markets	4.57			
16.	Output Market	3.00			
17.	Development of Infrastructure	4.67			
Σ Entrepreneurship Character Score			4.19	70.45	84%
Category			Strong		

Based on table 9 the entrepreneur character indicators of farmers in Sewon District belong to the strong category with an overall average score is 4.19 and a percentage score of 84%. This means that rice farmers in Sewon District have a high will to develop rice farming which is carried out through the application of various new innovations that can facilitate and develop rice farming activities. In the development of applying the latest technological innovations, rice farmers in Sewon District have used tractors to assist in land processing activities, then in harvesting rice, many farmers have used modern rice threshers, namely combine harvester thus shortening the time of harvesting rice.

The highest score of the rice farmer entrepreneur character indicator in Sewon was the achievement motivation indicator with an average score is 4.76 and the lowest score is the orientation towards the future with an average score is 3.75. The weak market orientation is caused by rice farmers in Sewon District selling their produce to middlemen using a wholesale system, not really considering market prices.

Table 10. Income and Profits of Rice Farming Based on Entrepreneurial Characters of Farmers in Sewon District

Farmer Entrepreneurial Character	Moderately	Strong	Very Strong
Income Level (Rp)			
Low	1,780,151	-	-
Currently	-	5,982,806	-
Tall	-	-	24,020,741
Profit Rate (Rp)			
Low	1,396,374	-	-
Currently	-	5,548,112	-
Tall	-	-	23,680,735

Based on table 10, of the five levels of entrepreneurial character, rice farmers in Sewon District are only included in the 3 levels of entrepreneurial character which includes the categories of sufficient, strong, and very strong, so it can be integrated that most rice farmers in Sewon District already have a certain level of character. high entrepreneurship. There are 6 farmers with an average low income, that is IDR 1,780,151 who tend to have a moderate level of entrepreneurial character. This proves that with low income, farmers do not give up on continuing to cultivate rice commodities compared to other commodities. With low-income results, farmers try to correct mistakes made in the previous planting season so that in the following planting season the farmer's income will be higher. Then most rice farmers in Sewon District, namely as many as 31 people, have a strong level of entrepreneurial character, and have an average average income of IDR 5,982,806. This is because these rice farmers produce rice products of higher quality and quantity compared to farmers who have lower characteristics. With a strong entrepreneurial character, the income received by farmers will be higher. Because the strong entrepreneurial character of farmers will affect the performance of farmers in running their business. Furthermore, there are 3 farmers who have high income, that is IDR 24,020,741 have a very strong level of entrepreneurial character. It's because of the farmers already understand knowledge and good communication with other farmers regarding rice cultivation innovations and rice selling prices. Farmers sell their rice yields to middlemen in the form of rice so that they have a higher price than in the form of dry grain. Therefore, the higher the entrepreneurial character possessed by farmers, the higher the income received by farmers, the more successful farmers will be in their farming business.

On average, a relatively low profit of IDR. 1,396,374 was obtained by 6 rice farmers with sufficient character levels. This is due to the large expenditure of farmers to buy fertilizer and pay rent for land so that the profits that farmers get cannot be maximized. Most rice farmers

in Sewon District have a moderate average profit of IDR 5,548,112 that has a strong character level. It's because of the area of land owned by rice farmers is quite large and has higher quality production so that it produces quite a lot of production and has a higher selling price so that the profits that farmers get are greater. Then there are 3 farmers with relatively high profits, namely IDR 23,680,735 735 that has very strong entrepreneur character. It's because of farmers can process farming well so that they can produce products that have quantity and quality. Some farmers already have their own modern agricultural tools so that the cost of renting equipment is minimized.

Thus it can be concluded that stronger entrepreneur character possessed by farmer, the stronger farmers will achieve success in their farming so that the higher the results of farming performance obtained by rice farmers in Sewon District, Bantul Regency.

Table. 11. Results of Rank Spearman Correlation Analysis of Entrepreneurial Character with Rice Farming Performance in Sewon District

Farming Performance	Coefficient value (rs)
Income	0.386
Profit	0.386

Description: * Significance at $\alpha = 5\%$

Based on table 11, it can be seen that the entrepreneur character of rice farmer in Sewon District has relationship with the performance of rice farming, includes farmers' income and profits. The coefficient correlation of farming performance, for income and profits, has the same value that is equal to 0.386 and is positive (+) it's mean that, the correlation between the entrepreneur character of rice farmers with farming performance is the weak category and has a unidirect relationship. The weak category indicates that the entrepreneur character possessed by farmers does not really affect the income and profits obtained by farmers in their farming business. A unidirectional relationship indicates that the more the value of the characteristics owned by the farmer increases, the value of the farmer's income and profits will also increase.

In research on the relationship between entrepreneurial characteristics and the performance of tilapia cultivation in Tasikmalaya Regency the coefficient value is 0.564 and is included in the medium category. This shows that the entrepreneurial characteristics of cultivators are sufficient to improve business performance in tilapia cultivation in Tasikmalaya Regency [17]. The stronger the entrepreneur character of rice farmers in Sewon , Bantul Regency, the better their expertise in manage their farming will be.. Rice farmers in Sewon District are satisfied with the income and profits they get from their rice farming. This proves that the entrepreneurial character of a strong farmer will make the farmer achieve success in his farming business. This proves that the entrepreneur character of.

4 Conclusion

Rice farmers in Sewon District, Bantul Regency have an entrepreneurial character that belongs to the strong category with an average score of 4.19 with a percentage of 84%. The highest score owned by rice farmers in Sewon District, Bantul Regency was found in the character of achievement motivation. In contrast, the lowest score owned by rice farmers in Sewon Subdistrict, Bantul Regency is on future-oriented characters.

The results of the analysis of rice farming in Sewon District, Bantul Regency during one harvest season in 2021 with an average land area of 2,023 m² has an average income of IDR 6,334,762 while the average profit earned by rice farmers in Sewon District, Bantul Regency is IDR 5,891,198. This means that rice farming in Sewon District, Bantul Regency is feasible to be cultivated or run by farmers.

The entrepreneur character of rice farmer in Sewon District, Bantul Regency has a positive correlation with the performance of rice farming. The stronger the entrepreneur character possessed by rice farmer in Sewon District, the higher the income and profit they will get from their farming business.

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