

Performance of watermelon farming on coastal land in terms of the entrepreneurial character of the farmers

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Abstract. Coastal land is marginal land for farming, but due to the decreasing number of agricultural lands, it is widely used for farming. The research was conducted in Panjatan District, Kulonprogo. This study aimed to know farm performance, describe the entrepreneurial character of farmers, and analyze the relationship between farm performance and the entrepreneurial character of watermelon farmers on coastal land. Respondents in this study were 40 farmers who cultivated watermelon on coastal land and were taken using the census method. Data were collected by interviewing farmers with a questionnaire. To analyze the entrepreneurial character using descriptive analysis based on data scoring from the Likert scale. Farming performance was measured using income and profit. Then, the Spearman Rank correlation was used to determine the relationship between farming performance and the entrepreneurial character of watermelon farmers. The results showed that the entrepreneurial character of the coastal land watermelon farmers was included in the strong category with a percentage score of 69%. Watermelon farming on coastal land during the planting season in February 2020 earned an income of IDR. 12,537,957 and a profit of IDR. 9,723,343 so that farming is feasible. Farming performance positively correlates with the entrepreneurial character of watermelon farmers on coastal land in Panjatan District.

1 Introduction

Coastal land is land that has low potential to farming, but due to the narrowness of land for farming, the land is widely used now. The low potential of coastal sandy land is due to the very low content of organic matter and the high evaporation rate, which makes the soil unsuitable for agriculture [1]. In addition, the speed of the sea breeze is quite strong, making the roots of plants on coastal sandy land prone to collapse or fall. The very high evaporation process due to the temperature during the day makes the coastal land quickly lose water. However, the community has its own way of managing the land so that it can be used as productive agricultural land [2].

Horticultural farming is one of the farms developed on coastal land and provides a great opportunity to provide good results and can increase the income of local communities. Kulon

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Progo Regency has a great opportunity to get good results in agriculture, especially its coastal land. There are several types of horticultural crops that are cultivated, including red chilies, onions, melons and watermelons. Many watermelon farmers have started to develop their farming on coastal land with the aim of increasing their production [3] .

Most of the job of the Indonesian people are farmers, which makes the agricultural sector very likely to produce new entrepreneurs. The entrepreneurial character of each farmer can be seen from the expertise of a farmer in managing his land and capital well. Farming run by farmers cannot be separated from the entrepreneurial character because if farmers have a strong entrepreneurial character in themselves, they will develop their farming well and have an impact on the success of their farming business. According to [4] the factors that can determine the success of a business can be measured by business continuity, profit gain, sales growth, number of labours, and the assumption of other variables related to farming success. This proves that the entrepreneurial character of farmers determines the success of their farming.

Successfully in a farm can be measured by farming performance which includes several indicators such as productivity, price, income and profit from farmers [5]. Farming performance is the result of work (output) both quality and quantity achieved by farmers in carrying out their farming activities. Good farming performance will certainly lead to a better level of farmer welfare.

Watermelon farming in Panjatan District has a problem, namely cultivating watermelon on coastal land requiring a large enough capital compared to other commodities such as chili and the risk of watermelon harvest failure is also higher. In addition, the price of watermelon harvest often drops in the market so that it can make farmers experience losses. However, many farmers continue to cultivate watermelons on the coastal land, and this is their main job. Therefore, it is necessary to find information on how strong the relationship between farming performance and the entrepreneurial character of watermelon farmers is so that they continue to run the farm. Based on the problems that occur, several problem formulations can be formed, namely how is the performance of farming based on the income and profits obtained by watermelon farmers in Pleret Village? How strong is the entrepreneurial character in the watermelon farmers in Pleret Village? How is the relationship between farming performance and the entrepreneurial character of watermelon farmers in Pleret Village? The purpose of this study was to know farm performance, describe the entrepreneurial character of farmers, and analyze the relationship between farm performance and the entrepreneurial character of watermelon farmers on coastal land.

2 Research methods

The method used in this study is a descriptive method focused on describing a situation in research such as people, government agencies, communities and others. In addition, this study uses a quantitative analysis approach that aims to obtain data that occurred in the past or present regarding the opinions, characteristics and beliefs of the sample obtained from a particular population [6].

2.1 Sampling Method

The location of this study was chosen intentionally (purposive sampling) in Pleret Village because the village is one of the watermelon producing areas on coastal land in Kulon Progo Regency. Respondents were determined using the census method, all members of the population were used as samples in the study. Based on pre-survey data, the number of members of the Pasir Sari farmer group in Pleret Village is 40 people. This farmer group is that is still active, so that all of its members are used as respondents.

In this study, two types of data were used to help complete the data, namely primary data and secondary data. Primary data is data obtained from interviews or direct interviews with respondents. The data includes income, profits, entrepreneurial character and other things that are considered important to be used in this study. Secondary data is obtained not directly from data sources, but by taking notes from literature, documentation, journals, books and other information that has a relationship with research [7]. The secondary data in this study are the general condition of the area, agricultural mapping and local watermelon production levels, population and general agricultural conditions.

2.2 Data analysis

Analysis of research data was carried out with reference to the formulation of objectives that had been made previously. The purpose of this study is to determine the performance of farming which includes income and profits, to describe the entrepreneurial character of farmers, and to determine the relationship between farming performance and entrepreneurial character in Pleret Village. The entrepreneurial character data is ranked using a Likert Scale, while for the analysis of farm performance, the costs, revenues, income, and profits can be calculated using the applicable formula.

Costs are expenses incurred for the procurement of factors of production, both those that are actually incurred (explicit costs) or those that are not actually incurred (implicit costs). So, the total cost is the overall production cost obtained from the sum of the implicit costs and the explicit costs [8]. The Formula 1 is a formula for calculating the total cost:

$$TC = TEC + TIC \quad (1)$$

While TC was total cost; TEC was total explicit cost; and TIC was total implicit cost.

Revenue can be calculated with the following formula:

$$TR = P \times Q \quad (2)$$

While TR was total revenue; P was price; and Q was quantity.

To calculate income (Net Revenue), using the following formula:

$$NR = TR - TEC \quad (3)$$

While NR was net revenue; TR was total revenue; and TEC was total explicit cost.

Profit is the difference between the revenue and the total cost of production, including implicit costs and explicit costs [9]. The amount of profit earned in the business must be more than zero, if the profit does not reach zero then the business is a loss, but if the profit value is equal to zero it is called break even. The formula for profit is as follows:

$$\pi = TR - TC \quad (4)$$

while π was Profit, TR was total revenue; and TC was total cost

The Likert scale is a method used in assessing attitudes, opinions, and perceptions of either a person or a group of people regarding social events. Respondents' answers have different arrangements, ranging from very positive to very negative, these answers can be given a score from one to five [6].

Meanwhile, to determine the relationship between farming performance and the entrepreneurial character of watermelon farmers, the Spearman Rank correlation method can be used. Spearman's rank analysis is used to find a relationship or test the significance of the associative hypothesis of two variables if the data is on an ordinal scale [6].

The formula used in calculating the Spearman Rank correlation in measuring the relationship between profits and the entrepreneurial character of watermelon farmers in Pleret Village is as follows:

$$r_s = 1 - \frac{6 \sum d^2 i}{n(n^2 - 1)} \quad (5)$$

While r_s was spearman rank correlation coefficient; d was difference in ranking between variables; and n was number of samples

3 Results and discussion

3.1 Watermelon farmer profile

Farmer profile is one of the internal factors that can affect the performance and ability of farmers in managing their farming. The farmer profile includes age, education level, experience in farming, area and land ownership status.

The age of watermelon farmers on coastal land in Pleret Village is in the ranges of 22-66 years, 50% are in productive age, which is around 44-54 years old (20 farmers), so that these farmers can carry out activities in their farming from planting to post-harvest optimally.

The level of formal education taken by farmers can determine the insight of farmers in developing their farming. Based on the results of the study, it can be seen that the watermelon farmers on coastal land in Pleret Village have the most recent education level of SMA/SMK as many as 30 farmers (75%). This makes the farmers are estimated to be able to develop their farms.

Farming experience is one of the benchmarks for farmers in running watermelon farming, the longer the experience, the more proficient they will be in overcoming problems that occur in their farming. Watermelon farmers on coastal land in Pleret Village have the lowest farming experience of 1 year and the highest for 49 years. The largest percentage (47.5%) has farming experience ranging from 13-24 years which is obtained from generation to generation.

Land ownership status will affect farmers' expenses, because if they don't own land they have to pay land rent. On the other hand, if the farmer owns his own land, he does not need to pay land rent. Based on the results of the study, it can be seen that the majority of coastal watermelon farmers in Pleret Village have their own land with a percentage of 85%, the rest renting land for their farming.

The area of farmland will affect the results obtained by farmers from watermelon farming, the wider the farmland owned by the farmers, the greater the results obtained. A total of 26 farmers in coastal land (65%) have arable land ranging from 450-4,449 m², the rest (35%) arable land is wider, ranging from 4,450-16,450 m² [10].

3.2 Analysis of watermelon farming

Farming analysis is useful to determine the performance of farming which is measured based on the amount of costs, income and profits received by watermelon farmers.

3.2.1 Explicit cost

Table 1. Explicit Cost of Watermelon Farming on Coastal Land in Pleret Village

| Description | Value (IDR) |
|--------------------------|------------------|
| Cost of production input | 5,179,773 |
| Fee of Nonfamily labors | 1,026,934 |
| Depreciation cost | 1,438,506 |
| Fee of land rent | 1,876,500 |
| Total | 9,521,713 |

Explicit costs used in conducting watermelon farming on a coastal land in Pleret Village include the cost of production facilities, equipment depreciation costs, labor costs outside the family, and other costs. In full as presented in the Table 1.

1) Production Input Cost

The cost of production input the amount of the cost of purchasing the necessities used in watermelon farming including the cost of seeds, fertilizers, pesticides, and other costs. Based on the calculation results, the cost of production facilities incurred by watermelon farmers on coastal land in Pleret Village is IDR. 5,179,773.

2) Depreciation Cost

The tools used in watermelon farming on coastal land in Pleret Village include diesel engines, tractors, spray tanks, hoes, paralon pipes, hoses, plastic infusions, sickles, water pumps, rickshaws, buckets, rakes, plastic mulch, and *dompeng*. Total depreciation cost is IDR.1.438.506

3) Costs of the Non-Family Labor

The cost of the non-family labor is a cost that needs by outside the farmer's family labor, so that farmers have to incur additional costs in the farming process. Based on the results of the analysis, it can be seen that the average farm area of 4,170 m² requires a total cost of outside the family labor in one season is IDR. 1,026,934 with the number of male and female workdays as many as 15 people.

4) Land lease

Some of the farmers use leased land in their farming. The cost of land rent is a real cost incurred by watermelon farmers for their farming. The total cost of land rent incurred by watermelon farmers on beach sand in Pleret Village with a land area per 4,170 m², which is IDR 1,876,500/year.

5) Total Explicit Cost

The total costs incurred by watermelon farmers on coastal sandy land in Pleret Village in one planting season include production facilities, labor costs outside the family (TKLK), equipment depreciation costs, and land rental costs. As presented in Table 1, it can be seen that the total explicit costs used by watermelon farmers on coastal land in Pleret Village with an average land area of 4,120 m² is IDR 9,521,713.

3.2.2 Implicit Cost

Implicit costs are costs that are not actually incurred in running the farms. Implicit costs have the nature of being only calculated as costs, but not actually incurred by the farmer. Implicit costs include the cost of the family labor, the fee of renting own land, and the fee of own capital interest. From the results of data analysis, it is found that the implicit cost value is as in Table 2.

Table 2. Total Implicit Costs of Watermelon Farming on Coastal Land in Pleret Village

| Total Implicit cost | Value (IDR) |
|--------------------------|----------------|
| Family Labor fee | 240,375 |
| Own Land rental fee | 112,500 |
| Own capital interest fee | 214,239 |
| Amount (IDR) | 567,114 |

Costs of the family Labor are costs that are not actually incurred by farmers but must still be taken into account in their farming. The Costs of the family Labor for watermelon farming on coastal land in Pleret Village is IDR. 240,375 with 4-man days.

The cost of renting the own land is a not real cost incurred by farmers in their farming. However, farmers need to know to analyze the costs used in running their farming. The cost of renting the own land for watermelon farming on coastal land in Pleret Village is IDR. 112,500. The cost of the own capital is an opportunity cost when farmers spend capital to run their farms, the amount is based on the loan interest rate prevailing at the local bank, which is 9% per year, or 2.25% for watermelon farming for 1 growing season (3 months). The cost of own capital coastal land in Pleret Village is IDR. 214,239.

The total implicit costs used by watermelon farmers on coastal land in Pleret Village consist of labor costs in the family, land rent costs, and own capital interest costs, amounting to IDR 567,114

The total cost of production is the sum of the implicit and explicit costs used by farmers in running their farms. The total production cost used by coastal land watermelon farmers in Pleret Village is IDR. 10,088,827 in one growing season, according to the data presented in Table 3.

Table 3. Total Cost of Watermelon Farming on Coastal Land in Pleret Village

| Total Cost | Value (IDR) |
|-------------------|--------------------|
| Explicit cost | 9,521,713 |
| Implicit cost | 567,114 |
| Total | 10,088,827 |

3.2.3 Revenue and Profit

Revenue is the total amount obtained by farmers from the results of their farming activities. Based on the results of the analysis, it can be seen that the receipt of slashes is IDR. 13,309,670 while the receipt of the scales is IDR. 8,750,000. So that the total income obtained by watermelon farmers on coastal land in Pleret Village per 4,170 m² is IDR. 22,059,670 in one planting period.

Net revenue is the income earned by farmers minus explicit costs in one planting season. From the results of the analysis, it can be seen that the income obtained by watermelon farmers on coastal land in Pleret Village is IDR. 12,537,957 in one planting period.

Table 4. Benefits of Watermelon Farming on Coastal Land in Pleret Village

| Description | Value (IDR) |
|---------------------------|--------------------|
| Slash sale results | |
| Revenue (IDR) | 13,309,670 |
| Sales per kg | |
| Production (Kg) | 2,500 |
| Price (IDR/Kg) | 3,500 |
| Revenue (IDR) | 8,750,000 |
| Total Revenue | 22,059,670 |
| Explicit cost (IDR) | 9,521,713 |
| Net Revenue (IDR) | 12,537,957 |
| Implicit cost (IDR) | 567,114 |
| Total Cost (IDR) | 10,088,827 |
| Profit (IDR) | 11,970,843 |

Profit is a reduction between revenue and the total costs incurred by farmers in running

their farms, or reduction between net revenue and implicit cost. Based on analysis, it can be seen that the benefits obtained by watermelon farmers on coastal land in Pleret Village are 11,970,843 in one planting periode. More details can be seen in the Table 4.

3.3 Entrepreneurial character of the Farmer

Entrepreneurial character is an important behavior or attitude for farmers to have. This is because it can make the farming run by farmers continue to grow and increase. Watermelon farmers who have an entrepreneurial character can be seen from their actions, namely daring to take the risk of crop failure and not giving up on developing their farming [11]. There are five entrepreneurial characters that will be analyzed and used as variables in this research, namely achievement motivation, business network, ability to face change, future orientation and leadership.

3.3.1 Achievement motivation

Achievement motivation is an attitude possessed by farmers in the form of a desire to achieve success in running their farming. Based on data analysis, it can be seen that the achievement motivation of watermelon farmers on coastal sand in Pleret Village is included in the sufficient category with an average score of 3.27. This means that the majority of watermelon farmers on coastal land in Pleret Village have a high enough achievement motivation in trying to make their farming operations continue to experience success, in accordance with the achievement motivation character of chili farmers in Sleman Regency. The entrepreneurial character of achievement motivation of chili farmers in Sleman Regency is included in the high category with a score of 4.43. It can be concluded from the score of the entrepreneurial character of chili farmers in Sleman Regency who have high enthusiasm and commitment, work hard, and never give up in developing their farming [12].

3.3.2 Business Network

This business network is needed by every farmer in developing his farm. This is because farmers cannot carry out activities in farming, especially marketing their own products, so they need help from other parties. This opinion is supported by research on business networks for MSMEs in Banyumas Regency, which shows that the wider the relationship with financial institutions, suppliers and other liaisons can make the business that is run can develop well. The MSME business network in Banyumas Regency is still not good so it needs to be improved again [13].

In a study on the influence of entrepreneurial characteristics on the success of the household furniture business in Jambi Timur District, it was concluded that the business network had a positive effect on the success of the business in the furniture business. This proves that the better the business network you have, the more the household furniture business will develop and increase its competitiveness [14].

Based on analysis, it can be seen that the character of the coastal land watermelon farmer network in Pleret Village is included in the weak category with an average score of 2.22. This means that the majority of watermelon farmers on coastal land in Pleret Village still do not have an extensive business network in developing the watermelon farming.

3.3.3 Ability to Face Change

The ability to face change is an attitude or behavior that must be owned by farmers. This is because changes in the era of globalization are very fast, making farmers have to deal with it

by applying technology in the farming process. Based on data analysis, it can be seen that the score of characters facing change is classified into the very strong category with an average of 4.28. Each of the four sub-indicators has a fairly high score. This is because farmers have high enthusiasm in dealing with changes in today's developments.

3.3.4 Future Orientation

Future orientation is the attitude of farmers to overcome something in a promising future. Farmers must be future-oriented to plan long-term in the success of the farming they run. A future-oriented entrepreneur must have innovative and creative nature [15]. This is in line with the principle of entrepreneurs who always want to advance their business far ahead [16]. Based on data analysis, it can be seen that the future orientation character score owned by watermelon farmers on coastal land in Pleret Village can be categorized as strong with an average score of 3.44. This means that watermelon farmers on coastal sandy areas in Pleret Village have already thought about the long-term sustainability of farming in the future.

3.3.5 Leadership

Table 5. Score of Entrepreneurial Characters of Watermelon Farmers on Coastal Land in Pleret Village

| No. | Variables | Application Score | | | |
|--|---|-------------------|---------------|--------------|-------------------|
| | | Score | Average | Total | Achievement Score |
| Achievement motivation | | | | | |
| 1. | Extroversion | 5.00 | 3.27 | 13.05 | 65% |
| 2. | Achievement Needs | 4.73 | | | |
| 3. | Execution | 2.00 | | | |
| 4. | Supervision | 1.33 | | | |
| Business Network | | | | | |
| 5. | Business Group | 3.71 | 2.22 | 4.85 | 32% |
| 6. | Financial institutions | 1.08 | | | |
| 7. | Educational Institutions | 1.88 | | | |
| Ability to Face Change | | | | | |
| 8. | Profit growth | 4.00 | 4.28 | 17.13 | 86% |
| 9. | Development of IT utilization | 4.32 | | | |
| 10. | Creativity | 4.05 | | | |
| 11. | Product Diversification | 4.75 | | | |
| Future Orientation | | | | | |
| 12. | Development of Utilization of Production Technology | 2.70 | 3.44 | 10.33 | 69% |
| 13. | Skill | 3.50 | | | |
| 14. | Market Orientation | 4.13 | | | |
| Leadership | | | | | |
| 15. | Independent (dare to act) | 4.88 | 4.74 | 18.95 | 95% |
| 16. | Dare to take risks | 4.85 | | | |
| 17. | Self Confidence | 4.90 | | | |
| 18. | Organizing | 4.33 | | | |
| Total Entrepreneurial Character Score | | | 3.59 | 64.31 | 69% |
| Category | | | Strong | | |

Leadership is the behavior of farmers in acting to influence other farmers in doing something so that they can achieve their desired goals. In the success of his business, a business actor must create an organization so that it can provide assistance when difficulties

occur. To obtain optimal results, the work should be given to the experts. That way a businessperson or entrepreneur must be able to measure the ability of the people who will be involved in his business [17].

Based on analysis it can be seen that the leadership character of coastal land watermelon farmers in Pleret Village belongs to the very strong category with an average score of 4.74. That way, the watermelon farmers on the coastal land in Pleret Village can be said to have a very good leadership spirit. More details can be seen in Table 5.

3.4 Entrepreneurial Character Level

Basically, all watermelon farmers on coastal land in Pleret Village already have an entrepreneurial character in them. However, it is this level of character that sets other farmers apart. Indicators of entrepreneurial character if sorted from the highest score to the lowest, the indicators are leadership, ability to face change, future orientation, achievement motivation, and business network. Based on data analysis, it can be seen that the indicator of entrepreneurial character owned by watermelon farmers on beach sand in Pleret Village is classified as strong with an overall average score of 3.59 and the percentage value of score achievement as much as 69%. The meaning of the score is that the level of entrepreneurial character of coastal land watermelon farmers in Pleret Village has the will to develop their farming through new ways such as the application of production technology innovations for irrigation so as to help the majority of watermelon farmers.

The level of entrepreneurial agribusiness in general (regardless subsystems and commodities) showed that use of self-knowledge test tends in strong category (55%) and moderate (45%). A high percentage (> 50 %) in the strong category owned by the actors on the off-farm subsystem. Meanwhile, the level of entrepreneurship using of character test tends in the low category (63%) and relatively high (37%). This character test showed horticultural farmers tend to have entrepreneurial potential is higher than crops farmers. The level of entrepreneurship agribusiness-based agribusiness subsystem (on-farm vs off-farm) showed a significant relationship to the significant level (α) of 25% on the in self-knowledge test, while the character test is not significant. The study was conducted in Bogor area in June 2013 to December 2013 with 108 respondents, consisting of 55 people in on-farm subsystem and 53 people on off-farm subsystem [18].

Other research results about: The Relationship Between Entrepreneurial Characteristics And The Succses Of Horticulture Farming (Case in Horticulture Farmers in Cibodas Village, Lembang District, West Bandung Regency) by [19]. The results showed that the average sample of farmers was male, of productive age, had received the 9-year compulsory education program, and had an average land area of 417.34 *Tumbak*. Entrepreneurial characteristics owned by farmers are included in the "Good" criteria with a percentage of 77.05%, Farming Success is included in the "Good" criteria with a percentage of 77.2%, and the results show that there is a positive correlation on all characteristics.

The research about The Young Farmers Behavior in Horticulture Agribusiness In Bandung Barat District have the result, that in general the behavior of young farmers in running horticultural agribusiness was not different from the previous generation. However, the prominent character of young farmers in running horticultural agribusiness is the ability of farmers to seek information and be responsive to change by taking innovative steps. Respondents in this study amounted to 120 people and were farmers under the age of 40 who were randomly selected .

Entrepreneurial Behaviour Of Mango Farmers In Agribusiness System At Majalengka District West Java Province is the topics of [20]. The research where has location in Majalengka Regency with 100 respondents spread across the Majalengka area. Respondents were determined purposively, namely farmers who made mango farming their main source of income. The results showed that some farmers (15%) run a mango agribusiness with the

aim of earning income and are oriented to the development of their business (farmers as entrepreneurs), while some are still income-oriented (85%), but have not been oriented to developing their business into a business better [21].

3.5 Relationship between Farming Performance and Entrepreneurial Character

Farming performance is an effort made by farmers to show the best work performance in their farming. In the research of in Bangladesh proved that the entrepreneurial character has a positive influence on successfully of the business [22]. Research on the relationship between entrepreneurial characteristics and entrepreneurial competence of dairy cows' farmers in Bogor Regency. The results show that there is a relationship between the entrepreneurial character and the entrepreneurial competence of dairy cows' farmers because to increase the entrepreneurial competence of farmers, it is necessary to improve the entrepreneurial character as well [23].

Farming performance used in this research is income and profit. The income and profits obtained are of course different for each farmer depending on the area of land and the results of their production.

Table 6. Income and Profit Results of Watermelon Farming Based on Entrepreneurial Character of Beach Sand Farmers in Pleret Village

| Farming Performance | Level of Entrepreneurial Character | | | | |
|------------------------|------------------------------------|-----------|------------|------------|-------------|
| | Very Weak | Weak | Quite | Strong | Very Strong |
| Level of Revenue (IDR) | | | | | |
| Low | 5,649,712 | 9,171,420 | - | - | - |
| Currently | - | - | 18,659,482 | 20,805,584 | - |
| Tall | - | - | - | - | 39,496,126 |
| Level of Profit (IDR) | | | | | |
| Low | 3,108,608 | 5,837,995 | - | - | - |
| Currently | - | - | 10,180,302 | 14,227,900 | - |
| Tall | - | - | - | - | 24,212,243 |

Based on Table 6, it can be seen that there are 6 farmers with a low average income of IDR 5,649,712 tend to have a very weak character level. This proves that low incomes are possible because farmers easily give up when facing obstacles in their farming instead of trying harder. On the other hand, farmers who have a relatively high income, which is IDR. 39,496,126 with a very strong character level. This happens because farmers do not give up easily in running their farms and have good communication with other farmers and middlemen so that information on prices, prices and technical watermelon cultivation between fellow farmers can be carried out properly. Therefore, the stronger the entrepreneurial character, the higher the income due to success in farming.

Likewise for the level of profit, the level of the entrepreneurial character of the farmer is proportional to the level of profit. Farmers with a very weak entrepreneurial character have the lowest level of profit, while farmers with a very strong entrepreneurial character have a very high level of profit.

The entrepreneurial character of farmers also has a positive correlation with the success of the farming they run, which is significantly related to the success of farming, namely self-confidence, future orientation, responsibility and leadership [14].

In determining the relationship between farming performance and the entrepreneurial character of coastal land watermelon farmers in Pleret Village, SPSS software analysis is used by means of Spearman Rank correlation.

Table 7. Results of Spearman Rank Correlation Analysis on Farming Performance with Entrepreneurial Character of Beach Sand Farmers in Pleret Village

| Farming Performance | Correlation coefficient |
|---------------------|-------------------------|
| Net Revenue | 0,552** |
| Profit | 0,693** |

Based on Table 7, it can be seen that income and profits have a relationship with the entrepreneurial character possessed by coastal land watermelon farmers in Pleret Village. The correlation coefficient value of farming performance for income is 0.552, meaning that the correlation between income and entrepreneurial character is in the medium category and has a unidirectional relationship because the value is positive.

Furthermore, the value of the correlation coefficient of farming performance for profit is 0.693, meaning that the correlation between profits and the entrepreneurial character of watermelon farmers is included in the strong category and has a unidirectional relationship because the value is positive. This shows that farm performance which includes income and profit has a positive relationship with the entrepreneurial character of watermelon farmers on sandy beach in Pleret Village. The stronger the entrepreneurial character of the beach sand watermelon farmers in Pleret Village, the better their skills in managing their farming will be.

4 Conclusions and recommendations

4.1 Conclusion

Based on the results of the study, it can be concluded that:

1. Watermelon farming on coastal land in Pleret Village has an average income of IDR 12,537,957. While the average profit obtained by watermelon farmers is IDR. 11,970,843.
2. The entrepreneurial character of coastal land watermelon farmers in Pleret Village is in the strong category with a percentage score of 69% with an average score of 3.59. The highest score of the five indicators of entrepreneurial character is leadership. On the other hand, the lowest score is business network.
3. Farming performance has a positive correlation with the entrepreneurial character of watermelon farmers on coastal land in Pleret Village. The stronger the entrepreneurial character in the farmer, the higher the income and profits generated.

4.2 Recommendation

Watermelon farmers on coastal land in Pleret Village should record their farming expenses. It is intended that farmers can find out the amount of input costs used in running their farms, so the benefits obtained by watermelon farmers can be monitored properly. There are indicators that the character of the business network is weak, the government should help reactivate the function of farmer groups in Pleret Village by providing counseling and training on how to strengthen and expand business networks for farmers.

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