



## THE INFLUENCE OF CHARACTERISTICS, COMPETENCE AND ENTREPRENEURIAL ORIENTATION ON ENTREPRENEURIAL PERFORMANCE OF NILE TILAPIA FISH BREEDERS IN MINAPOLITAN AREA, NGEMPLAK DISTRICT, SLEMAN REGENCY

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### Article Info

Accepted July , 2024

Revised August 25, 2024

Published September 30,  
2024

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### Keywords:

*Entrepreneurial characteristics; entrepreneurial competence; entrepreneurial orientation; entrepreneurial performance; tilapia fish breeders.*

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### Abstract

Ngemplak District is a center for tilapia fish seed production. There are a number of obstacles experienced, namely increasingly tight competition in the seed production business, lack of concentration of human resources in seed production, and seed quality that is not in line with market demand. Based on this problem, the objectives of the study are: to understand the entrepreneurial characteristics of tilapia fish seed producers, to understand the level of entrepreneurial competence possessed by tilapia fish seed producers, to understand the level of entrepreneurial orientation of tilapia fish seed producers, and to understand the influence of characteristics, competence and entrepreneurial orientation on the entrepreneurial performance of tilapia fish seed producers in Ngemplak District. Data processing uses frequency distribution tabulation and arithmetic mean from the Likert scale and regression analysis. The study was conducted on fifty-one seed producers in the Mina Ngremboko Group and Siwar Putih. The results of the study prove: the entrepreneurial characteristics of tilapia fish breeders in Ngemplak District are very high, the entrepreneurial competence of tilapia fish breeders in Ngemplak District is high, the entrepreneurial orientation of tilapia fish

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breeders in Ngemplak District is high, the characteristics, competence and entrepreneurial orientation significantly influence the entrepreneurship of tilapia fish breeders in Ngemplak District. The results of the study have the potential to improve the economy by maximizing the entrepreneurial performance of tilapia fish breeders in Ngemplak District.

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## INTRODUCTION

Fishery business covers all activities in fisheries and aquaculture. Currently, the condition of capture fisheries has reached saturation point, then aquaculture business has an important role to meet the needs in the fisheries sector (Nugroho, 2013). The largest contribution of aquaculture comes from freshwater aquaculture. Freshwater fish farming is increasingly in demand because it is easy to do and has great opportunities. Business opportunities for aquaculture are quite broad, ranging from seeding, nursery to product processing. Market demand for freshwater aquaculture products is quite high. In addition, freshwater fish farming has minimal risk compared to seawater farming. This advantage makes freshwater aquaculture a promising business alternative today.

The success of seed farmers depends on our own efforts in the process of achieving business goals. Entrepreneurial characteristics are an important factor in supporting seed farmers to achieve business success. Seed farmers who have entrepreneurial characteristics have distinctive characteristics or characters, behaviors that are inherent in themselves, to achieve the expected goals. Seed farmers will use these characteristics to manage business capital well, and can adapt to changes in nature and the surrounding environment (Mukti, 2020). Not only adapting to changes in nature and the environment, but also being able to follow the diverse demands of consumers amidst current technological advances. Good business characteristics support the improvement of entrepreneurial competence.

The condition of human resources of fish breeders as the main actors of aquaculture in Indonesia is still very low, approximately 59.7 percent of the ownership status of fish breeder ponds in Indonesia is less than 0.1 hectares and is run with a system that is still traditional and minimal institutional support for fish breeders in the form of providing capital and information (Fatchiya 2010). The development of freshwater aquaculture businesses has greater opportunities, with efforts to utilize natural resources optimally in increasing freshwater fish production to meet market needs, increasing land potential to meet the increase in freshwater fish consumption by expanding fish farming areas (Rahmawati, 2012).

Entrepreneurial orientation is based on processes, practices and decision-making that provide support for new input. There are three aspects of entrepreneurship, namely acting proactively or always being innovative and daring



to take risks (Miftakhul, 2019). Innovation is something that is improved or created so that it can be distinguished from what already exists and what has not existed before based on form, function, and others. Product innovation is implemented to meet market demand, meaning that entrepreneurs must make products based on customer desires so that the products they produce can attract customers to make purchases. Sari (2016) stated that a good entrepreneurial orientation has a strong relationship with profit. Entrepreneurs will take advantage of existing opportunities, then have a positive effect on business performance.

The Special Region of Yogyakarta is among the top fifteen provinces with the highest production for freshwater aquaculture. The average increase in production from 2011 to 2015 was 10.67% (Directorate General of Aquaculture, 2016). Fisheries data for 2015 recorded that aquaculture production reached 69,173 tons, an increase of around 16% from the previous year, which was 59,500 tons. The increase in production continued until 2017, amounting to

88,550 tons for fish enlargement and seeding of 1,873,997 fish. The largest aquaculture production in Yogyakarta province is in Sleman Regency of 49,540 tons in 2017. The largest production in Sleman Regency is tilapia in 2017 of 199,332.5 kw and seed production of 667,121,340 fish. The highest production contributor is from Ngemplak District, both seeds and consumption tilapia. Ngemplak District has high potential for tilapia cultivation with a pond area of 831,490 m<sup>2</sup>, production of 3,496,460 kg and there are 38 pokdakan groups (Fish Cultivation Groups) (Fisheries Service, 2018).

Minapolitan is a concept of regional-based fisheries and marine economic development based on the principles of efficiency, integration, acceleration and quality. Minapolitan areas are parts of certain areas with the main economic function including processing centers, production, service and trade, as well as marketing of production commodities (Secretary General of the Ministry of Marine Affairs and Fisheries, 2013). This area has three main objectives where the first objective is to develop productivity, production and quality of fisheries and marine products. Second to increase the income of fish breeders, fishermen and fish processing that is even and fair. Third to develop the minapolitan area for the center of regional economic growth (KKP, 2010). For real steps, Ministerial Regulation No. 12/2010 concerning Minapolitan and Decree of the Minister of Marine Affairs and Fisheries No. 32/2010 concerning the Determination of Minapolitan Areas have been issued (Nugraha, 2015). Ngemplak District is one of the areas in the DIY Province that has been designated as a minapolitan area in Sleman Regency. Based on Regent Regulation Number 216/ Kep.KDH/A/2010 concerning the determination of Ngemplak District as a Minapolitan Area.

In addition to Mina Ngremboko, there is a beginner class group that has achieved quite a lot, namely the Siwar Putih group. This group won first place in the beginner class at the district level in 2017. The area of land owned is 10,000 m<sup>2</sup> with a production of 55,350 kg for tilapia. This production amount is the highest production in the beginner class group. As a beginner group, the Siwar Putih group



is quite active in participating in training. One of the trainings that is often attended is the CBIB training, the aim of which is to maintain the quality of the fish produced so that they are competitive in the market. The Siwar Putih group is active in taking care of the CBIB certificate which is valid for 3 years. One of the CBIB assessment points achieved by Siwar Putih is entrepreneurial ability with a score of 80. A fairly high score for the beginner class, indicating that the Siwar Putih group has good entrepreneurial competence.

The many achievements, experiences and high potential of the Mina Ngremboko and Siwar Putih fish farming groups have not been able to support the needs of the tilapia fish market in the Special Region of Yogyakarta, so it is necessary to conduct a study entitled "The Influence of Characteristics, Competencies and Entrepreneurial Orientation on the Entrepreneurial Performance of Tilapia Fish Seeders in the Minapolitan Area, Ngemplak District, Sleman Regency".

### RESEARCH METHODS

The basic method used in the study is a descriptive method. The use of descriptive methods is because this study describes the condition of tilapia fish breeders in Ngemplak District based on facts at the research location. These facts were obtained from the results of interviews and observations with tilapia fish breeders in Ngemplak District.

The selection of the research location was determined intentionally. The research was conducted in Ngemplak District because it has the largest area of seeding and production land in Sleman Regency, especially for tilapia. The selection of groups for the research was determined intentionally (purposively), namely the Mina Ngremboko and Siwar Putih groups. The Mina Ngremboko group with the main group level has quite a lot of competition achievements, the largest production and land area and is used as a pilot group. As a comparison, the Siwar Putih group with the beginner level has quite good achievements, a small land area but higher production compared to other beginner groups. So that we can see the comparison of entrepreneurship between the main and beginner groups.

The sample in this study was the Mina Ngremboko (main) and Siwar Putih (beginner) tilapia fish breeders. The sampling technique used saturated sampling, which is a sampling technique if all members of the population are used for the sample (Hujayanti, 2020). This technique is carried out if the population is smaller. Another term for saturated samples is a census. The research sample for the Mina Ngremboko Group was 34 respondents and the Siwar Putih Group was 17 respondents, the total sample of this study was 51 respondents.

### RESULTS AND DISCUSSION

Business income in this study is divided into two, namely income from seed production and other business income. Income from seed production is obtained



from seed sales for one month. While other business income is obtained from business income for one month, the majority of whom are self-employed. Data on the distribution of respondent characteristics based on business income can be observed in Table 5.4.

Table 5.4 Respondent Characteristics Based on Business Income

Information	Seed Business			Other Business		
	Highest (000)	Lowest (000)	Average (000)	Highest (000)	Lowest (000)	Average (000)
Mina Ngremboko	280,00	3,50	46,94	12,000	500	2,046
White Siwar	57,600	5,08	20,93	3,000	850	1,918

Source: Primary Data Analysis, 2021

From Table 5.4, the income from the seed business is greater than other businesses. The average income for the Mina Ngremboko group is 46,948 and the Siwar Putih group is 20,939. The income of Mina Ngremboko is greater than the Siwar Putih group because it has a larger land area and the average seeders have been running the seed business for generations. The fairly large seed ponds mean that seeders do not have time to run other businesses and are more focused on the seed business. Meanwhile, the seeders of the Siwar Putih group still have a small seed pond area and prefer to look for side business opportunities other than tilapia seed farming. These seeders feel that the business they are running is not yet sufficient to meet their living needs and the greater risk of seed business will affect their income. The income of these seeders is related to the orientation and competence of seeders in entrepreneurship. The higher the urgent need for seeders to look for other business opportunities both in the fisheries and non-fisheries sectors that are in accordance with their abilities.

, the research instrument was tested for validity and reliability. The validity test was used to compare the calculated  $r$  value and the calculated  $r$  value with the critical value ( $r$  table). Based on the number of respondents of 51 people and  $\alpha$  0.05, the critical value was obtained as much as 0.28. Based on the calculation results of all independent questions, namely competence, characteristics and orientation, it has been proven with the results showing validity because the correlation value with  $\alpha$  0.05 is greater than the critical value. Meanwhile, for the reliability test, measurements were carried out using the Cronbach Alpha ( $\alpha$ ) statistic with the limit of a variable being declared reliable if the Cronbach Alpha value  $> 0.60$ . The results of the reliability test showed that the characteristics, competence and entrepreneurial orientation variables were above 0.6. Validity and reliability data can be observed in Table 5.10



Table 5.10 Validity and Reliability

Variables	Indicator	Validity	Reliability
Characteristics of Entrepreneurs	Self-confident	0.659	0.664
	Task and Results Oriented	0.615	
	Risk Taker	0.583	
	Leadership	0.666	
	Originality	0.589	
	Future Oriented	0.599	
Entrepreneurship Competence	Managerial	0.673	0.759
	Conceptual	0.687	
	Social	0.749	
	Make decisions	0.747	
	Managing time	0.790	
Entrepreneurship Orientation	Innovation	0.934	0.940
	Proactiveness	0.953	
	Courage to Take Risks	0.957	

Source: Primary Data Analysis, 2021

Entrepreneurial characteristics come from within the tilapia fish breeders. This variable reflects characteristics that appear to be related to entrepreneurship, which are inherent in the personal nature of the breeder and are shown in running the tilapia fish breeding business. Based on the results of the respondents' answers, the entrepreneurial characteristics of tilapia fish breeders in Ngemplak District are categorized as very high with an average value of 4.5. The high entrepreneurial characteristics indicate that tilapia fish breeders in Ngemplak District are able to improve their entrepreneurship.

### 1. Normality Test

This test is intended to understand how much influence the residual value has on the model obtained. The smaller the influence through external variables that are not included in the model, the better the analysis results obtained. This test is carried out with the KS test, the results of the normality test can be observed in table 5.30.

Table 5.33 Normality Test Results

		Unstandardized Residual
N		51
Normal Parameters <sup>a,b</sup>	Std.Deviation	1.31527736
Test Statistics		0.840



Asymp.Sig.(2-tailed)	0.480
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Source: Primary Data Analysis, 2021

Based on Table 5.33, the results of the normality test can be concluded that the residual value of the variables not included in the model is in normal condition. It can be seen from the significance value which is in a significant condition of 40 percent, meaning that the significance value of the normality test is greater than the five percent confidence level.

### 2. Multicollinearity Test

The multicollinearity test is used to test the level of linear relationship to all independent variables entered. This test is carried out by observing the VIF value, if the VIF value exceeds ten then there is a correlation between the independent variables selected in the model. The purpose of the multicollinearity test is to see the selected variables do not cause bias to the model results obtained in the analysis. The results of the multicollinearity test can be observed in table 5.34

Table 5.34 Multicollinearity Test Results

Variable s	Tolerance	VIF
Characteristics of Entrepreneurship	0.961	1,040
Entrepreneurship Competence	0.967	1,034
Entrepreneurship Orientation	0.983	1,018

Source: Primary Data Analysis, 2021

Based on Table 5.34 entrepreneurial characteristics, entrepreneurial competence and entrepreneurial orientation, the VIF value is below ten and the tolerance exceeds 0.10, meaning it is free from multicollinearity problems. This variable can be used in the model to get the best analysis results.

#### a. Hypothesis Testing

The hypothesis that has been made previously regarding competence, entrepreneurial orientation and characteristics

Kentrepreneurship influence performance Nile tilapia fish seed entrepreneurship will be proven by using multiple linear regression analysis. The data used for the analysis is primary data selected directly in the field with a total of 51 seed respondents. The results of the multiple linear regression analysis can be observed in Table 5.35

Table 5.35 Multiple Linear Regression Results.

Variabl es	Regression Coefficient	t-count	Sig
Constantine	-2.332ns	-0.616	0.541
Characteristics of	0.287**	2,945	0.005



Entrepreneurship			
Entrepreneurship	0.392***	4,272	0,000
Competence			
Entrepreneurship Orientation	0.260**	2,921	0.005
Adjusted R2	0.341		
Fcount	9,620***		

Source: Primary Data Analysis, 2021

Caption:

\*\*\*= significant  $\alpha$  = one percent

\*\*= significant  $\alpha$  = five percent

ns=Not Significant

### CONCLUSION AND SUGGESTIONS

1. The entrepreneurial characteristics of tilapia fish breeders in Ngeemplak District are very high. Some entrepreneurial characteristics that cause high values such as task and result orientation where breeders are oriented towards generating profit. Furthermore, the originality of breeders who carry out seed certification also causes high entrepreneurial characteristics. Risk takers by calculating every risk of the business being run. The breeder's confidence in carrying out seed business independently. Leadership that provides direction between breeders and is future-oriented by being able to see new opportunities.
2. The entrepreneurial competence of tilapia fish breeders in Ngeemplak District is high. Conceptual competence such as being responsive to changes, conveying ideas according to ability are the main factors in increasing entrepreneurial competence. Time management competence that is able to determine the time of sale is important in increasing entrepreneurial competence. Breeders who are able to make decisions by formulating problems, goals, accepting suggestions and criticism are also able to increase entrepreneurial competence. Furthermore, social competence in terms of motivating breeders, but breeders are able to communicate with various parties to establish cooperation. Finally, the managerial competence of breeders is still at a moderate level, but breeders are able to use social media in entrepreneurial activities that can increase entrepreneurial competence.
3. The entrepreneurial orientation of tilapia fish breeders in Ngeemplak District is in the high category. Breeders innovate their business by using social media and improving seed quality to be competitive. Breeder proactivity is carried out by expanding the market and increasing the





number of sales to potential customers. Breeders also dare to take risks by optimizing existing opportunities, one of which is by shipping to various regions.

4. Characteristics, characteristics and entrepreneurial competencies significantly influence the entrepreneurial performance of tilapia fish breeders in Ngemplak District.

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