

## **THE EFFECT OF INTERNAL FACTORS, NEED INFORMATION AND EXTERNAL FACTORS TO ENTREPRENEURIAL CHARACTERISTICS OF RICE FARMERS**

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### **ABSTRACT**

The entrepreneurial characteristic of rice farmers is one of the reference to improve the welfare of rice farmers. This research aims to analyze the factors that effect the entrepreneurial characteristics of rice farmers. This research uses survey method with quantitative research methodology as well as in depth with qualitative data. The research was conducted in four districts in Banten Province from May 2017 to October 2017. The population is all rice farmers with 276,712 people and the sample as respondents is 400 rice farmers. Result of this research indicate internal factor of rice farmers had significant effect to entrepreneurship character especially in formal education, timely of side business, income and cost of rice farming, side business income and motivation. Almost all indicators of marketing information needs (product, price, place, process, physic evidence, and hospitality) effected very significantly to entrepreneurial character except promotion. All external factors (access to capital, market access, demand, extension support and business partnership) have a very significant effect on the entrepreneurial character of rice farmers.

**Keywords:** Entrepreneurial character of rice farmers, external factors, information needs, internal factors

### **INTRODUCTION**

Efforts to increase the income of rice farmers is one of the main goals in the dynamics of sustainable national development. This becomes an important thing to note because given the pressure of poverty in the rice farming community. The problem of poverty in rice farmers is not only due to the dominant pressure of economic factors and due to limited production capital. However, another factor that is more influential is the low quality of human resources of rice farmers.

The food crops business system in Indonesia is still dominated by the traditional management system. The traditional management system is characterized by low of production in the area of production, crops using simple technology using of inadequate market information, and limited capital. Farming crops, especially rice, have a high dependence on consumer preferences (market), so that conditions must be immediately repaired and changed in order to compete in the market. Until now the behavior of farmers in carrying out the agricultural business always fits in accordance with the needs of marketing information. That why the change should be grounded in the marketing mix.

The scope of marketing activities is determined by a marketing concept called the marketing mix. The elements of the marketing mix consist of all the variables that the organization can control in its communications that will be used to satisfy the targeted customer. Kotler and Keller (2009) marketing mix is an organizational control element that can be used to satisfy or communicate with customers. The appearance of this element as the core decision variable of each marketing plan. Marketing mix is a set of marketing tools that organizations use to continuously achieve their marketing objectives in the target market.

Agricultural extension as non-formal education that aims to change the behavior of farmers as planned should be carried out continuously that is in accordance with the development so that the client is more empowered independently (Asngari 2008). As a practical action, extension is an effort to encourage behavior change in individuals, groups, communities or communities so that they know, are willing and able to solve the problems faced. The purpose of extension is quality of life and dignity (Amanah 2007). Continuous visits and training are needed and the frequency of visits and variety of training should be done between sub-sectors and seasons of the year (Sugarda 2001).

Individual characteristics or personal factors that need attention are age, education, experience, and motivation. In the development of rice farming and sideline business of rice farmers, individual characteristics encourage business orientation as a business and ease of receiving innovation. Related to the development of rice farming and side business in rice farmers, then there is an effort to grow the entrepreneurship spirit of farmers. Growing entrepreneurial spirit is one effort that can be expected to increase agricultural economic growth. The entrepreneurial spirit will change the orientation of farming from production to business-oriented. Farmers will begin to consider the types of crops to be planted, planting time and even to the processing of agricultural products in order to obtain added value from these activities, as well as increased side business. The purpose of this research is to analyze the factors that influence the entrepreneurial characteristics of rice farmers.

## **METHODOLOGY**

This research uses survey method with quantitative research methodology as well as deepened with qualitative data. The research sites are located in four districts in Banten Province, namely Lebak District, Serang District, Pandeglang District and Tangerang district. This research was conducted from May 2017 to October 2017. The population is rice farmers with a total of 276,712 people. The sample size was determined by Slovin formula with 5% error rate, obtained by 400 people (Table 1).

**Table 1: Population and sample of four districts in Province Banten**

<b>District</b>	<b>Population (Person)</b>	<b>Sample (Person)</b>
Pandeglang	91.800	105
Lebak	74.981	109
Serang	54.599	105
Tangerang	55.332	81

The variables of this research are internal factors of rice farmers, marketing information needs, and external factors of rice farmers that influence the entrepreneurship characteristics of rice farmers. Indicators of internal factors of rice farmers are age, formal education, length of rice farming, length of side business, member of family, rice farming income, rice farming costs, side business income, side business costs, and motivation.

Indicators of variable market information needs are product, price, place, promotion, process, physic evidence and hospitality. Indicators of external factors are market access, capital access, demand, extension support and facilitator assistance, and partnership support. Indicators of the entrepreneurial characteristics of rice farmers are independent, courageous in taking risks, reliability, inovation and forward-looking orientation.

The sampling technique from district to farmer group was done by using purposive sampling. The sampling technique on respondent by using stratified random sampling. Technique of data collection is done through observation study to the location of research, interviewing questionnaire, and in-depth interview. Analysis of research data using inferential statistics with path analysis.

## **RESULTS AND DISCUSSION**

Based on the region's general description, the four districts in Banten Province which are the research sites can be divided into two regions. Region A or rural for Lebak and Pandeglang

District while region B or sub urban for Tangerang and Serang District. This refers to the characteristics of areas that have similarities between each of these districts.

Lebak and Pandeglang districts are categorized as region A or rural due to the majority of the livelihood population in agriculture. This is supported by the availability of land for business in agriculture. The majority of the population working in the informal sector shows that this region is still homogeneous in terms of work. The behavior of the population in this region is still based on the concept of mutual assistance, and has a familial spirit to inherit traditions or cultural values. In Region A, transportation infrastructure is inadequate because it is rare distance from the Indonesia capital city (Jakarta) compared to region B. On the other hand, the difference can be seen from the economic condition of the community is still a lot of limited income so it is classified into the middle to lower society.

Serang and Tangerang districts are categorized as region B or sub-urban areas as seen from the majority of the population divided into several groups according to their livelihood. There is still a livelihood as in the field of agriculture and there is also in the field of industry. This is because these two areas are the satellite track that sustains the economy in the capital city of Jakarta so that some areas are used as industrial centers (factories or big companies). However there are also few areas used for agricultural business. This ultimately forms a heterogeneous society because it differs in terms of work where there are those who work in the formal and informal sectors. These heterogeneous populations make people individualistic. In addition, region B has fast access to the capital city of Jakarta because it is passed by Merak-Jakarta toll road which is generally a freight or transportation route connecting the island of Sumatra and Java. Economic growth in this region is so rapid that people have high income especially those who work in industry so that many people can live more decent than rural area.

### **Influence of Internal Factors**

Internal factor is characteristic of individual owned by rice farmer side business in Banten Province. Internal factors to the characteristics of entrepreneurship are significantly influenced by education, timely side business, farm crop income, farm crop cost, sideline business income, and motivation (Table 2). This is suitable in accordance with Murisa and Chikweche (2013) research on the poverty in Zimbabwe who claim that education and long-standing efforts will strengthen the character of entrepreneurship.

**Table 2: The value of internal factor regression coefficient on Entrepreneurial Characteristics**

Internal factors	Coefficient Value ( $\beta$ ) to Entrepreneurial Characteristics					
	Independent	Brave	Reliability	Innovation	Orientation	Characteristics of Entrepreneurship
Age	-0,18**	-0,032	-0,10	0,03	-0,08	-0,07
Education	1,01**	0,90**	0,75**	0,35	0,99**	0,80**
Length of Farming	-0,13	-0,05	-0,12	-0,05	-0,16	-0,10
Farm Area	-0,31	0,00	-0,30	-0,00	-0,13	-0,15
Old Side Effort	-0,17**	-0,17**	-0,14*	-0,05	-0,19*	-0,14**
The number of dependents	0,81	0,67	1,09*	0,47	-0,03	0,60
Farm Income	8,40x 10 <sup>-8</sup>	1,21 x 10 <sup>-7*</sup>	1,28x 10 <sup>-7</sup>	4,32x 10 <sup>-7</sup>	1,73x 10 <sup>-7*</sup>	1,10x 10 <sup>-7*</sup>
Farming Costs	9,46x 10 <sup>-8</sup>	1,02x 10 <sup>-7</sup>	1,24x 10 <sup>-7*</sup>	3,73x 10 <sup>-8</sup>	1,36x 10 <sup>-7</sup>	9,86x 10 <sup>-8*</sup>
Side Income	3,25x 10 <sup>-8</sup>	4,46x 10 <sup>-8*</sup>	4,54x 10 <sup>-8*</sup>	1,82x 10 <sup>-8</sup>	5,24x 10 <sup>-8*</sup>	3,86x 10 <sup>-8*</sup>
Side Charges	3,51x 10 <sup>-8</sup>	3,47x 10 <sup>-8</sup>	4,14x 10 <sup>-8</sup>	1,32x 10 <sup>-8</sup>	3,93x 10 <sup>-8</sup>	3,27x 10 <sup>-8</sup>
Motivation	0,39**	0,39**	0,36**	0,39**	0,11	0,33**

information: \* Significant effect on  $\alpha = 0.05$

\*\* Very significant effect on  $\alpha = 0.01$

In the indicator age only significant effect on the characteristics of entrepreneurship in indicators of independence, whereas in the indicator of education and timely side business only indicator of innovation that has no significant effect. This is because the more old of the farmers then the more independent in the effort so that should be assisted by other parties. The aged farmer certainly thinks a lot of things in his business with the hope of his business is not a loss so it takes a lot of input from others.

This is different from the level of education of farmers sideline business. Farmers with a high level of education have a high entrepreneurial spirit seen from independence, dare to take risks, reliability in the business and forward orientation. This is because the farmers who have higher education are easier to understand the problems so as to overcome solve these problems,

especially those related to farming and sideline business (Hastuti et al., 2015), such as knowing how to get a good price by improving quality of the product and services.

Indicators of farm crop income have a significant effect on entrepreneurial characteristics in indicators of risk-taking and future orientation. This is because the higher the farmer's income then the farmer will dare to take risks which of course remain oriented forward. High-income farmers are usually not afraid to take risks in trying new things or important decisions because they have so many other income that they will not lose. In line with Thobias et al. (2013), the increasing of capital in medium micro business actor in Talud District, the courage to take higher risk. Unlike farmers who have a average income just to eat, the farmers tend to play safe as long as they still meet their daily needs so they do not have the entrepreneurial spirit to develop their business, especially dare to take risk oriented in the future.

Indicators of sideline business income significantly affect entrepreneurial characteristics in taking risk indicators, reliability and orientation. This is because the higher the income from side business so the side business would be dare to take risks. Reliability of side business was designing the needs of the market and oriented future. This is the same as farm crop income, if farmers already have high income then they will not be afraid to do new things in the side business because the needed for the house has been fulfilled

The cost of farming indicator only has a significant effect on entrepreneurship characteristic in reliability indicator, whereas in motivation indicator only indicator of orientation that has no significant effect. This is because the higher farming costs incurred the farmers will be more reliable in designing business needs. Costs incurred high, then farmers must be smart in managing the planning until the implementation of farming in order not to lose and able to compete with other business actors.

On the motivation of farmers, if the motivation of farmers is high then the farmer must have entrepreneurial spirit. This is because motivation is an inner drive to do something to make the entrepreneurial spirit of the farmer increase. Highly motivated farmers will usually be brave in taking risks, reliable designing the future, fond of doing new things. In line with Dumasari (2014), entrepreneurship of farmers in the management of micro business in rural areas is significantly affected in self-awareness, spirit, will, motivation, business orientation, perception, personality, innovation, brave in taking risk, self-confident and business sensitivity. Therefore, it is necessary role of agricultural extension or group leader to give motivation for farmer of business actor so that entrepreneur have entrepreneurship spirit.

On the indicator timely side business has a significant effect on the characteristics of entrepreneurship but in negative value. This is because the timely sideline business effort, the

entrepreneurial characteristic also does not increase. The reason is because farmers do side business just for the additional income so that is fair the side business negatively affects the entrepreneurship spirit of rice farmers.

**The Influence of Information Needs**

Information needs are things that need to be known by rice farmers in running the farm so that it can succeed. Information examined in the study include: product information, prices, places, promotions, processes, facilities and hospitality as presented in Table 3. Factors of information needs to the characteristics of entrepreneurship are influenced significantly by product, price, place, process, facilities and hospitality (Table 3). According to Suharti and Sirine (2011), the characteristics of entrepreneurship are markedly influenced by the contextual actor of the marketing mix. This sharpens by Martin (2009), that the marketing mix will strengthen the entrepreneurial spirit.

**Table 3: Value of regression coefficient of information needs factor to Entrepreneurship Characteristic**

Information Needs	Coefficient Value (β) to Entrepreneurial Characteristics					
	Independent	Brave	Reliability	Innovation	Orientation	Characteristics of Entrepreneurship
Product	0,28**	0,32**	0,38**	0,29**	0,35**	0,32**
Price	0,18**	0,21**	0,27**	0,18**	0,19**	0,20**
The place	0,04	0,14**	0,19**	0,14**	0,47**	0,19**
Promotion	-0,12**	-0,06	-0,00	-0,03	0,22**	0,00
Process	0,11**	0,17**	0,20**	0,13**	0,35**	0,19**
Infrastructure	0,26**	0,33**	0,34**	0,27**	0,33**	0,31**
People services	0,46**	0,49**	0,51**	0,36**	0,42**	0,45**

information: \* Significant effect on  $\alpha = 0.05$

\*\* Very significant effect on  $\alpha = 0.01$

On the indicator of product and price have significant effect on all indicator of entrepreneurial characteristic that is independent indicator, taking risk, reliability, innovation and orientation. This is because the more farmers perceive the need for quality product information and high selling prices then the farmers will have a high entrepreneurial spirit. Farmers will have enthusiasm for entrepreneurship because the products produced are in demand by consumers of course with a high price. Farmers will not hesitate to do business if it is information of high

product needs and a favorable selling price, provided it is supported by a quality product. The more information the product and the selling price obtained then the desire to entrepreneurship will increase.

Indicators place are significant effect on all indicators of entrepreneurial characteristics except in independently indicator. This is because farmers will increase their entrepreneurial spirit if the information about where the seller of the product is clear. There is market information that will accommodate their products either the middleman or sold to the market itself then the farmers will enthusiasm for entrepreneurship. Nevertheless there are exceptions to the characteristics of independence because it is not all farmers can market their own goods even though it is clear the information where still need the intermediary of other parties primarily middlemen. This is because the limited capital to go to the market so that sellers often take and then sell to the market. This is what causes the spirit of self-reliance of farmers is still weak because it still depends on the middlemen in entrepreneurship.

Indicators of processes, facilities and hospitality have a significant effect on all indicators of entrepreneurial characteristics. This is because the more information about the process is well known, the information about the facilities and the need for excellent service, business actors will improve the characteristics of entrepreneurship. Business actors who understand these needs make them a passion for doing business. As the marketing process uses packaging that attracts interest, if they understand it then the business will adjust to the consumer's wishes. Information on the friendly service needs to be given to the business actors so as to make the entrepreneurial spirit of farmers to be increased

### **Influence of External Factors**

External factors are the forces that come from outside the ability of rice farmers to support the smooth operation of their farms, including access to capital, market access, product demand, extension support, and business partner support as seen in Table 4. External factors to entrepreneurial characteristics are significantly influenced by access to capital, market access, demand, extension support and support of business partners. Details are shown in Table 4. According to Nirmala et al. (2016), stated that capital access and demand significantly positively affect the exchange rate value of farmers. In line with Nillson et al. (2014), that increased partnership support, demand, and assistance will improve farmers' entrepreneurship. Research McElwee and Annibal (2010), revealing access to capital and market access, and government support have a very real share in improving farmer entrepreneurship.



**Table 4: The value of the external factor regression coefficient on the characteristics of entrepreneurship**

External Factors	Coefficient Value ( $\beta$ ) to Entrepreneurial Characteristics					
	Independent	Brave	Reliability	Innovation	Orientation	Characteristics of Entrepreneurship
Capital Access	-0,00	0,02	0,08**	-0,01	0,25**	0,07**
Market Access	0,07	0,11**	0,17**	0,18**	0,39**	0,18**
Demand	0,39**	0,31**	0,38**	0,33**	0,26**	0,33**
Extension Support	0,36**	0,33**	0,37**	0,26**	0,29**	0,32**
Business Partner Support	0,11**	0,10**	0,15**	0,06	0,14**	0,11**

information: \* Significant effect on  $\alpha = 0.05$   
 \*\* Very significant effect on  $\alpha = 0.01$

In capital access indicators, demand and extension support significantly affect all indicators of entrepreneurial characteristics, namely independent, taking risk, reliability, innovation and forward orientation. This is because of easy access to capital, high demand for goods and the support of routine extension of the characteristics of entrepreneurship becomes higher. The ease of accessing capital is seen from various institutions of capital providers or individuals so business actors will dare to entrepreneurship. Farmers are not afraid of entrepreneurship because it is supported by sufficient capital. High demand for goods also makes the entrepreneurial spirit increasing, as can the fulfillment of market demand. High agricultural extension support also affects the entrepreneurial characteristics in which information for entrepreneurship is generally obtained from extension workers, there are problems submitted to extension workers to find solutions together and capital to marketing are also assisted by extension workers.

Indicators of market access have a significant effect on all indicators of entrepreneurial characteristics except in independent indicators. This is because the easier to access the market then the soul of independence increases. Rice farmers feel secure if the market for selling products is available so they dare to take risks for side-by-side entrepreneurship even if it's new to them because they mainly grow rice. The exception in independence is seen from the inability of business actors in marketing their products, still have to interfere with other parties from brokers or group leaders. In addition, business actors are also still expecting assistance extension in solving the problem.

Indicators of business partner support have a significant effect on all indicators of entrepreneurial characteristics except innovation indicators. This is because if the business partner supports the side business actors then their entrepreneurial characteristics will also increase. For example, if a

business partner lends a lot of capital, equipment to marketing assistance then business actors will dare to take risks, reliable in designing the plan from raw materials to assisted marketing techniques, forward orientation is also clear because it is supported by business partners. However, there are exceptions in innovation where in this aspect business partners can not touch because their focus only provides help alone cannot help in exploiting something new. It is clear there is a difference in the purpose of the business partners.

## **CONCLUSION**

Internal factors of rice farmers on formal education indicator, timely sideline business and motivation have a very significant influence on entrepreneurial character. In the indicator of income and cost of rice farming as well as side business income on internal factors significantly influence the entrepreneurial character of rice farmers. Indicator of product, price, place, process, means, and service of people on marketing information need very significant effect to entrepreneurship character except promotion indicator. All external factor indicators (access to capital, market access, demand, extension support and support of business partners) have a very significant effect on the entrepreneurial character of rice farmers.

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