THE EFFECTS OF PARTNERSHIP AND ENTREPRENEURSHIP TOWARD BUSINESS PERFORMANCE OF OYSTER MUSHROOM (PLEUROTUSOSTREATUS)

Edi Sucipto*, Rina Oktaviani**, and Rizal**

*Department of Agricultural Production, Study Pogram of Plantation Production, Politeknik Negeri Jember Jl. Mastrip PO BOX 164, Jember 68101
**Department of Economics, Faculty of Economics and Management, Bogor Agricultural University Jl. Kamper, Wing 4 Level 5 Kampus IPB Darmaga, Bogor 16680
***Department of Agricultural Production, Study Pogram of Seed Production Technique, Politeknik Negeri Jember Jl. Mastrip PO BOX 164, Jember 68101

ABSTRACT

This study aimed to 1) analyze the effect of power on the performance of oyster mushroom business in Jember; 2) analyze the effect of partnerships on the performance of the white oyster mushroom business in Jember; and 3) analyze the effect of entrepreneurship on the performance of oyster mushroom business in Jember. The population in this study included the oyster mushroom cultivation farmers in Jember with the total population of 144 farmers; however, this study only used a sample size of 114 people. The data analysis method used was SEM (Structural Equation Modeling). Based on the analysis of data, it can be concluded that the power and partnerships have a significant effect, whereas entrepreneurship does not have a significant effect on the performance of oyster mushroom businesses in Jember. The study has managerial implications for the policy makers with the approach of: 1) prioritizing the power of the company that has a social characteristic by providing benefits in the form of non-materials, and this must be consistently implemented; 2) increasing partnership strategy through regular supervisions; 3) setting aside any entrepreneurial spirit which can jeopardize the decision making in increasing production when prices are low.

Keywords: power, partnership, entrepreneurship, business performance

ABSTRAK


Kata kunci: kekuasaan, kemitraan, kewirausahaan, kinerja bisnis

1 Corresponding author:
Email: edi.sucipto.polije.ipb@gmail.com
INTRODUCTION

Indonesia has a large and diverse varieties of rain forests which are potential to be utilized for the prosperity of the society, and fungi are one of the varieties that exist in the forests. Cultivation of fungi is expected to provide an economic value to farmers. Currently, the oyster mushroom production is not able to meet the market demand; therefore, Indonesia still has to import mushrooms to meet the demand. In addition, a large number farmers are not interested in cultivating these oyster mushrooms due to the limitations of revenues obtained and market information. In fact, the price of these mushrooms is high and stable, and they can be cultivated at any season and do not need a large capital. Also, the marketing and maintenance are not complicated and do not cause any pollution. However, the success of this type of business requires tenacity and perseverance (Herliyana et al. 2005).

Sutarja (2010) states that the cultivation of oyster mushrooms (Pleorotus ostreatus) has not been fully developed in Indonesia, both as a business opportunity and as the fulfillment of public consumption. The cultivation of oyster mushrooms is conducted by packing them in a form of bag log media with a mixture of sawdust with corn flour and bran. Oyster mushroom businesses can run without relying on any seasons since the cultivation of these oyster mushrooms is carried out in a barn, and for the growing condition, the temperature and humidity are required to be regulated i.e. by spraying it with water. If the condition is dry or lacks of water, the growth will be disrupted. (General Directorate of Horticulture, 2007).

Parjimo (2007) states that oyster mushroom businesses have a potential to increase the income of a community and to produce food that has a high nutritional value and is a source of vegetable-protein. Oyster mushrooms contain a high vegetable protein, are rich in vitamins and minerals, and have low-carbohydrate, fat and calories which are very useful for maintaining health. The microelements of the metallic minerals in the oyster mushroom are so low that they are safe to consume (Sumarmi, 2006).

A large number of people are interested in cultivating white oyster mushrooms because they have a short maintenance period, and the mushrooms can be harvested from the age of 40 days after planting (inoculation) to the production period of 3 to 4 months. Some mushroom production centers in East Java include Sidoarjo, Pasuruan, Magetan, Mojokerto, Jombang, Jember, and Batu; therefore, the national demand of oyster mushrooms can be met by the mushroom production centers of East Java. The pattern of development of the oyster mushrooms is mostly conducted through strategic partnerships (Setyawati, 2013).

The partnership program aims to improve the ability of small enterprises to become independent through capital and training supports i.e. by enhancing or improving the Human Resources to be professional and skillful in supporting the marketing and business continuity in the future (Sulistyo and Adiatma, 2011).

Samad (2011) states that efforts to solve the problem require great attention and concentration, one of which is by conducting partnerships among the economic actors themselves. To date, the existing partnerships are able to increase production from year to year. The steps that can be taken to promote the cultivation of oyster mushrooms include relationships, clients, connections, and partnership. (Wibawa, 2012)

Rachmad (1998) mentions that partnership is basically a means to promote mutual partnerships. The philosophy of partnership is applied to improve the success of agro-industries in forcing the people's economy. Based on Law Number 9 Year 1995, partnership is the cooperation between a small businesses and a medium or large business on the principles of mutual needs, strength, and profits (Department of Agriculture, 1995).

Thorelli (1996) argues that partnership is part of the network paradigm development given the fact that increased global competition occurs among the corporate networks. The development of real partnership in the network includes functional organization, norm based inter-realization, joint and coordinated management by the market driven organization (Morgan et al. 1994).

Johnson (1999) adds that choice of partnership strategy is one form of strategic alliances that can improve business performance through several variables that influence the dependency, flexibility, quality of relationships, and information (Information Sharing). Internal goal of a business will greatly depend on the partners as this will improve the dissemination of information, efficient transactions, cost savings, technology, and innovation process. Also, it will shorten product development time and support logistics management and promotion programs. Market orientation is an application of the
marketing concept which is basically the philosophy of the company's work which consists of three basic elements, namely, business marketing strategy built on the philosophy that customers are the central point of the development strategy, company efficiency, and marketing organization as an integrated activity (Kohli et al. 1990).

The advantage in business partnership (Contract Farming) is a marketing contract that includes efficiency in the collection of results, production of quality products, transport efficiency, relative stable price, and supply continuity capacity due to production planning. Meanwhile the weaknesses of business partnership pattern (Contract Farming) includes the institutional business which is usually based on formal ties with the clear system of incentives and sanctions (Reward and Punishment). The partner company usually has a network of specialized markets (supermarkets, processing industries, restaurants and hotels as well as exports) with strict requirements of quality standards, but lack of market flexibility because of marketing contract, and can only receive products that meet the quality standards determined by both parties (Saptana et al. 2009).

Primarily, partnership is a synergistic relationship among various actors to achieve mutually agreed objectives, and at this level, all parties should share responsibilities for the emergent risks. One thing that should be observed is that the competitive and subsidized approach is still unable to give more optimal results if compared with the existing potential (Widyani, 2013).

Application of partnership aims to tackle problems of lack of capital and technology for small-scaled farmers, to increase product quality, and to handle marketing issues. In fact, the implementation of this partnership often faces problem both from the farmers and their partners of the main company, causing the partnership to be unsustainable (Purwaningsih, 2007).

Dorsch et al. (1998) conveys that good relationships will create a better level of trust, satisfaction and stronger commitment from both sides, as well as good communication. Communication at the level of involvement and adaptability of both parties will affect the sales (Boorum M et al. 1998). The main objective of a company in developing a variety of strategies is to increase profitability or performance (Narver JC and Slater SF, 1990).

Matsuno et al. (2002) states that along with the increasing pace of business competition, a company has to change its consumer-oriented strategy, the consumer-oriented companies should be able to boost their performance.

Key to the success of economic development is the existence of continuous innovation undertaken by the innovators/entrepreneurs and researchers, and creative human beings innovate by producing new products, finding new markets, and creating new raw materials (Arsyad, 2012).

Based on the above information, a number of things that become problems in oyster mushroom business especially in Jember can be identified. Jember as an important part of oyster mushroom suppliers of East Java has a weakness in partner farmers who do not understand the technical culture of oyster mushroom cultivation. The business failure of the farmers leads to an unsustainable future partnership because the partnership strategy built by the core company may not be relevant to be applied to the culture of the Jember society; therefore, it is important to search for an appropriate solution for the oyster mushrooms partnership with a policy approach in solving conflicts. It is also necessary to conduct research on influences of corporate power applied to the partner farmers, effects of core corporate partnership strategy in empowering farmers, and influences of farmer entrepreneurship that give impacts to the performance of partner companies. The relevant research title is the Effects of Power, Partnership and Entrepreneurship for White Oyster Mushroom Business Performance in Jember. From this study, it is expected to obtain managerial implication policies for decision makers in partnership companies in maintaining, improving and developing oyster mushrooms businesses.

The scope of the research conducted on white oyster mushroom farmers in Jember was focused on analyzing variables associated with power, partnership, entrepreneurship and business performance.

The study contained several hypotheses as follows: (H1) power has a significant effect on the performance of white oyster mushroom business in Jember; (H2) partnership has a significant effect on the performance of white oyster mushroom business in Jember; (H3) entrepreneurship has a significant effect on the performance of white oyster mushroom business in Jember.
Based on the hypotheses mentioned above, the objectives of the research were 1) analyzing the effects of power on the performance of white oyster mushroom business in Jember; 2) analyzing the effects partnerships on the performance of the white oyster mushroom business partnership in Jember, and 3) analyzing the effects of entrepreneurship on the performance of white oyster mushroom business in Jember.

**METHOD**

The types of the research were the explanatory research and confirmatory research. The types and sources of data used were primary and secondary data where the primary data were obtained directly from the respondents from the white oyster mushroom farmers in Jember, and the secondary data were obtained from other related parties.

The location of the research was in Jember, East Java, and the population of the research was white oyster mushroom farmers in Jember, amounting to 144 people. This study used a sample size of 114 individuals (19 indicators x 6 observations). The sampling technique used was a simple random sampling because the population was considered to have a homogeneous element based on the type of cultivated mushrooms i.e. white oyster mushrooms.

The research variables consisted of three exogenous variables (X) and one endogenous variable (Y) supported by 19 indicators including:

- **X1** = Power is one of the elements with the source of influence or has the authority to control the decision variables in a business strategy towards other members (Brown et al. 1995). Power is applied to build cooperation; however, if it is not forced, it will be more productive than the coercive power (Dwyer, 1980), and there were four indicators in this variable (1. Awards/Rewards, 2. Sanctions/Penalties, 3. Authority and Rights, and 4. Expertise).

- **X2** = Partnership is an interdependence between the two sides in which each side expects to gain (Saptana, 2010), and there were eight indicators in this variable (1. Focuses on the relationship/fairness, 2. Identifications/Selection, 3. Contract Form, 4. Fair Dealing, 5. Strong Relationships, 6. Suggestions/Trainings, 7. Supports/Motivations, and 8. Evaluation).

- **X3** = Entrepreneurship can be seen as an innovative behavior of the orientation of the strategy in the pursuit of profitability and growth. It is a creative and innovative capacity as the basis, tip and resource to search for opportunities to success. The essence of entrepreneurship is to create something new and different through creative thinking and innovative actions to create opportunities (Smith et al. 2003). There were three indicators in this variable (1. Innovation, 2. Risk-Taking, and 3. Proactive Action).

- **Y1** = Business Performance is understood as a medium to measure results achieved by the company during a certain period of time. Measurement of business performance can be classified into financial performance (Financial) and marketing performance (Marketing). ROA is the ratio between the net profits earned by the total assets owned by the company while ROS is the ratio between the net profits earned by the total sales successfully made by the company. (Farrell, 2000). There were four indicators in this variable (1. Repeated Purchases, 2. Market Growth, 3. Rate of Return, and 4. Gain on Sales). The conceptual framework of this study is shown in Figure 1 below.
The data were processed and presented based on the principles of descriptive statistics, and for analysis and hypothesis testing, the Inferential Statistics approach was used. The method used in analyzing and testing the hypotheses in this study was a model equation or Structural Equation Modeling (SEM) using AMOS program package (Analysis of Moment Structure) version 18. In SEM, there are two groups of analysis carried out in stages, namely, (a) the measurement model and (b) structural model, and, there were two main analytical tools used in this study, namely, (1) test equipment SEM assumptions, and (2) test equipment model fit. Test data were proven to be valid and reliable in the previous test phase carried out through measures of normality of univariate or multivariate, outliers (data residing outside the distribution of most of the data), both univariate and multivariate and multicollinear. Some tests of Goodness-of-fit model along with cut-off values are presented in Table 1.

Table 1. Test of goodness of fit model overall

<table>
<thead>
<tr>
<th>Goodness of fit index</th>
<th>Cutt of value</th>
<th>Annotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square</td>
<td>Expected low</td>
<td>Good fit</td>
</tr>
<tr>
<td>Significane Probability</td>
<td>≥ 0,05</td>
<td>Good fit</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0,08</td>
<td>Good fit</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0,90</td>
<td>Good fit</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0,90</td>
<td>Good fit</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤ 2,00</td>
<td>Good fit</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0,90</td>
<td>Good fit</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0,90</td>
<td>Good fit</td>
</tr>
</tbody>
</table>

Source: Ferdinand, 2002

**RESULT**

There are four types of requirements to be met by the SEM assumption evaluation, namely, the size of the sample, multicollinearity test, outliers test and normality.

**Sample size**

In SEM modeling, the sample size that must be met is the sample size for the ML estimates with the condition that it is at least 5 x number of observed variable indicators (Ferdinand, 2002). This study used 19 indicator variables, indicating that the sample size was 19 x 6 = 114 samples; therefore, the total sample was 114 white oyster mushroom farmer partners from Jember.

**Multicollinearity test**

Multicollinearity can be seen through the determinants of the covariance matrix. Determinant value which is very small or close to zero indicates an indication of the presence of a multicollinearity or singularity problem, so that the data cannot be used for research (Ghozali, 2005). The test results obtained a value of 1.200 from the Sample Covariance Matrix Determinant. Since this value was far from zero, it can be concluded that there are no multicollinearity data and singularity problems; therefore, the data could be used in the study.

**Outlier test**

The criteria used are based on the value of Chi Square in degrees (Degree of Freedom) by the number of indicator variables at a significant level of p <0.05 (Ghozali, 2005). Test results of the outliers in the study appeared in Mahalnobis Distance or Mahalnobis D-squared. To calculate the value of Mahalnobis Distance, Chi Squares value was based on degrees of freedom, namely, the number of indicator variables of 19 at level of α = 0.05 at 30,143. The data that had Mahalnobis distance greater than 30,143 were the Multivariate Outliers. The Outlier Test results showed that the highest score was 30,051, indicating that there was no case of Mahalnobis Distance.

**Normality test**

Normality Test was conducted on both univariate and multivariate data of some variables used in the analysis. The assumption of normality can be made by using the value of z statistics for Skewness and the quartosis and can be empirically seen in the Critical Ratio (CR) at the 0.05 level. If the value of CR is -1, 96 ≤ CR ≤ 1, 96, the data distribution will be normal for both Univariate and Multivariate data. The result of assessment of normality showed that the CR value was 1,038; therefore, it can be said that Multivariate Data were normal.

**The results of SEM analysis**

The model is good if the theoretical model development hypothesis is supported by the empirical data. The complete results of the analysis of SEM (Structural Equation Modeling) are shown in Figure 2. The results of test model construct (Figure 2) which were evaluated based on the Goodness of-fit Indices, Model Criteria as well as Critical Value that had the suitability of data are...
shown in Table 2, while the causality test results and hypothesis testing results of SEM models are described in Table 3.

The test results showed that the coefficient value of the path between the power and the performance of the business was 0.563 with a significance level of 0.000 smaller than the hinted significant level (α) i.e. 0.05, and the value of the CR was greater than that of the critical value required i.e. 2. These results support (receive) the first hypothesis in this study that has proven that power significantly influences the business performance. The assessment of the respondents indicates that power is well perceived well by the partner farmers of oyster mushrooms. This is because the core company has implemented rewards/awards as agreed by the partner farmers. The respondents classified as the oyster mushroom farmers at productive age with a higher education have a tendency to have an ideal personality. Therefore, it is essential to have non-material rewards in the form of mutual respects and respects in avoiding conflict. A social award is certainly expected to maintain consistent commitment and to maintain harmony. Application of power in accordance with the conditions encountered will provide clarity of the roles and responsibilities, thus will also improve the business performance. The results obtained are in line with the theory proposed by Shipley and Egan (1992); Johnson (1999) stating that positive influence between power and performance shows that the company's core business is exercising its non-coercive power, and this is proved to be more productive than the coercive power.

Figure 2. Results of the analysis of SEM

Table 2. Suitability index of model SEM

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Cut off value</th>
<th>Summary</th>
<th>Annotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi square</td>
<td>≥ 0.05</td>
<td>0.00</td>
<td>Marginal</td>
</tr>
<tr>
<td>Significance probability</td>
<td>≥ 0.05</td>
<td>0.08</td>
<td>Good fit</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.08</td>
<td>0.90</td>
<td>Good fit</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0.90</td>
<td>0.90</td>
<td>Good fit</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0.90</td>
<td>0.90</td>
<td>Good fit</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤ 2.00</td>
<td>1.70</td>
<td>Good fit</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0.90</td>
<td>0.90</td>
<td>Good fit</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.90</td>
<td>0.90</td>
<td>Good fit</td>
</tr>
</tbody>
</table>
The test result shows that the coefficient value of partnerships on business performance was 0.360 with a significance level of 0.030 smaller than the value of the hinted significance level (α) of 0.05, and the CR value was 2.168 greater than that of the critical value required i.e. 2. These results support (receive) the second hypothesis in this study where it has been proven that partnership has a significant effect on business performance. Based on the assessment of the respondents, it is indicated that partnership is well perceived by partner farmers of oyster mushrooms because the core company has implemented monitoring functions to partner farmers in dealing with technical problems in the field.

Based on the respondent characteristics, the time of partnership is still in the range of two years including trying out new oyster mushrooms so that the company's core supervisory functions are in the standard application of cultivation, maintenance, harvesting age determination, and yield harvesting and sorting. This is because the company, in fact, keeps the expected product standardization based on the consumer demand. The results obtained are in line with the theory proposed by Johnson (1999); Shipley and Egan (1992) stating that partnership has a positive influence on business performance. Control is an integral element of the pathway (channel) of effective partnerships that demonstrate how to help members achieve common interests, determine the objectives of honesty and mutual benefit to improve consensus, and assess the condition and provide encouragement, input and material supports to increase cooperation communication, so that business performance can be easily achieved.

The test results showed that the path coefficient value of entrepreneurship on business performance was equal to -0.207 with a significance level of 0.205 greater than the hinted significance level (α) of 0.05, and the CR value was -1.267 less than that of the critical value required i.e. 2. The result does not support (rejects) the third hypothesis in this study stating that the statement of entrepreneurship has a significant effect on business performance has not been proven. The results of that survey showed that entrepreneurship is not well perceived by the partner farmers of oyster mushrooms, and this is due to the application of risk-taking which is not desired in oyster mushrooms partnership. Risk-taking mentioned by the respondents is increasing a risk to increase the business despite its low production. It is not significantly favorable due to a strict monitoring function that constantly monitors the condition of the partner, supported by a strong power of core corporate. If the oyster mushroom partnership strategy finds indications of planting multiplication subtraction seeds (bag log) outside of the company core, the core will give a penalty sanction.

In general, business opportunities in agriculture usually occur when the production price is low; therefore, it can be predicted that there will be a reduction in the number of farmers who cultivate oyster mushrooms. The decreasing number of farmers who cultivate agricultural products will have an impact on the decreasing amount of production, thus resulting in an increase of prices because it cannot meet the demands of the products. In fact, this kind of situation cannot be tolerated, in the sense that the core company is not approved of gambling in business management since all components have been integrated with the planning consistent with the amount of product produced based on the market uptake. The farmers themselves will not get significant effects with the addition of production capacity even though prices tend to go up and go down, because pricing on oyster mushroom partnership strategy is determined by the price at the beginning of the contract agreement, and the results obtained are still in line with the theory proposed by Purwaningsih (2007).

Application of a partnership aims to address problems of lack of capital and technology for small-scaled farmers, to increase product quality, and to solve marketing problems; however, in reality, the implementation of these partnerships often face problems both from the farmers and partners of the company, and this may eventually lead to an unsustainable partnership.
Managerial Implication

This study has implications for managerial decision-makers who plan to increase the performance of business in white oyster mushroom partnership. Thus, the results of this study should be followed up by the decision makers in order to obtain optimum profits. Based on the results of the analysis, there are three variable in improving the business performance, namely: (1) priority in company power (power) that implements awards/rewards as agreed by the partner farmers in the form of non-material rewards of mutual respect and conflict avoidance that can maintain consistency in committed and sustainable harmony; (2) enhancement of the partnership strategy by supervising functions of technical problems in the form of a standard application of cultivation so that the company is able to maintain the expected standard of consumer products; (3) consideration on the courage of the risk-taking of entrepreneurial spirit (entrepreneurship) in cooperation partnership. The entrepreneurial spirit (entrepreneurship) which implements the function of risk aversion i.e. the risk-taking courage to enlarge the business despite the current low prices which are significantly unprofitable is set aside, because the partnership that applies strict monitoring functions constantly monitors the presence of the condition of the partners and supports the farmers by their strong core corporate power in oyster mushroom partnership strategy so that subtracting seed planting (bag log) outside the core company will lead to penalty sanctions.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The results of research on the effects of power, partnerships and business on white oyster mushroom (Pleurotus ostreatus) business performance in Jember show that they are the most dominant indicators in the market growth in business performance variables, and the results prove that the white oyster mushroom businesses have been running well even though there are still obstacles that are required to be solved. Moreover, the research concludes that the Power Variable has a significant positive effect on the performance of white oyster mushroom businesses, and this result supports the first hypothesis in the study stating that power significantly affects the performance of white oyster mushroom businesses in Jember. Power of a social nature that does not force (non-coercive power) is more productive than the coercive power.

The Partnership Variable has a significant effect on the performance of white oyster mushroom businesses, and this result supports the second hypothesis in this study stating that power significantly influences the performance of white oyster mushroom businesses in Jember. The dominant indicator of the partnership is the assessment/supervision, and effective partnerships can take place through the assessments of the conditions, communication improvement, and encouragement and feedback to the partners.

The Entrepreneurship Variable has no significant effects on the performance of white oyster mushroom businesses, and this result does not support (rejects) the third hypothesis in the study. The dominant indicator of entrepreneurship is taking a risk. The proven fact in support of the principle of partnership is less risk-taking by a partner in increasing production capacity at the time of low prices and by the core company in the planning of production capacity that has been integrated in accordance with market demand, so the risk taken by a partner in increasing production capacity outside the partnership agreement is not liable the company.

Recommendations

The companies should recognize the capacity of their partners to realize the integration of sustainable partnership management through communication, visions, missions, motivation and attention in order to achieve a conducive environment, to make team work, and to solve conflicts using non-coercive power. Moreover, they should see through the entrepreneurial orientation viewpoint i.e. the desire to achieve the goal (need for achievement), and have a belief that success is due to their own efforts (internal locus of control), confidence (self-reliance), and openness (extroversion).

For further research on the analysis of the effects of power, partnerships and business on the performance of oyster mushrooms is still recommendable and should add the indicator variables of distribution channels in order get better results in general. The variable include 1) The adequacy of the amount, and adequacy of the number of units to be achieved in the quantity and quality required, 2) the delivery time, accuracy and speed, and easiness in obtaining the necessary goods, and 3) the completeness of product items demanded by the channel members.
REFERENCES


