The Effect of Corporate Entrepreneurship on Firm Performance  
(Case Study on SMEs Processing Refined Seaweed Product in South Sulawesi, Indonesia)

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Abstract
This study aims to examine and explain the effect of corporate entrepreneurship through all three dimensions, namely innovativeness, pro-activeness, and risk-taking on SMEs performance in South Sulawesi - Indonesia. The data was collected from 36 SMEs in processing refined seaweed products. The questionnaire is the main instrument to collect data, and secondary data obtained from interviews. The data were analyzed using Generalized Structured Component Analysis (GSCA). The result reveals that overall corporate entrepreneurship has positive effect on SMEs performance. More specifically, it is found that each dimension of corporate entrepreneurship such as innovativeness, pro-activeness, and risk taking has positive and significant effect on SMEs performance.

Keywords: innovativeness, pro-activeness, risk-taking, SMEs performance

1. Introduction
Seaweed is one of the flagship products of marine in South Sulawesi which has economic value that can drive the economic sectors ranging from farmers, producers, processors up to the user. South Sulawesi has a great opportunity to become the leading refined seaweed producer in the world. Seaweed production in South Sulawesi is able to contribute as much as 33.33% of total national production in 2011 (Central Bureau of Statistics, 2012) and seaweed commodities of South Sulawesi not only entered the local market but has penetrated the export market to Philippines, China, Taiwan, and Hong Kong.

Seaweed is one of the commodities of fishery products which have not been widely used, especially in form of refined seaweed products. Most seaweed only be exported in the form of dry, making it less give added value to the fishing communities in South Sulawesi. The export volume of seaweed South Sulawesi has increased every year. The average volume of seaweed exports during 2008-2012 approximately 52,389 tonnes with a value of approximately US $ 53 million. This suggests that seaweed production increased from year to year. In 2008 seaweed production is only about 648,528 tonnes and increased to 2,104,446 tons in 2012. The increase in seaweed production average of 23.63%. However, not much is exported in form of refined seaweed products. Most company has very limited ability to produce refined seaweed products that affect the company's performance. In fact, companies are required to constantly improve their competitiveness by trying to produce unique refined products by applying innovative culture and entrepeneurial culture. Implementing corporate entrepreneurship is believed by many researchers that can improve corporate performance (Zahra, 1991; Zahra and Covin, 1995; Nath, 1997; Covin and Miles, 1999; Ferreira, 2002; Antonicc and Hisrich, 2004; Antonicc and Scarlat, 2005; Kolkakovice et al., 2005; Zain, and Hassan, 2007; Chen and Cangahuala 2010; Mokaya, 2012; Moshtaghi et al., 2012; Shamsudin et al., 2012).

Zahra research results (1991); Zahra and Covin (1995); Lumpkin and Dess (1996); Antonicc and Zorn (2004); Aktan and Bulut (2008); Antonicc and Scarlat (2008); Lekmat and Selvarajah (2008); Mahmood and Wahid (2012); Shamsudin et al. (2012); shows that corporate entrepreneurship / entrepeneurial behavior (IB), namely: innovation, proactive and risk-taking, was positively related to organizational performance. There are several studies that show corporate entrepreneurship is not significantly associated with the organization's performance (Wiklund and Shepherd, 2005; Kolkakovice, 2006). In fact, there are also studies that indicate that dimension innovativeness of corporate entrepreneurship does not affect the organization's performance (Chen and Cangahuala 2010; Shamsuddin et Al., 2012). In the previous studies, many studies use financial performance as indicator of corporate entrepreneurship. In this study, sales, profit, and asset growth will be used as indicators to performance of SMEs in processing refined seaweed products.
This study will be built based on the conceptual model of corporate entrepreneurship proposed by Zahra (1991); Zahra and Covin (1995); Lumpkin and Dess (1996) which shows the relationship corporate entrepreneurship and organizational performance and corroborated by the results of research Antoncic and Zorn (2004); Aktan and Bulut (2008); Antoncic and Scarlat (2008); Mahmood and Wahid (2012); and Shamsuddin et al., (2012). The described issue is very important thing to be investigated that may provide contribution in science development of corporate entrepreneurship and corporate performance as well as for the development of efforts to improve the performance of small and medium enterprises SMEs in processing refined seaweed products in South Sulawesi in Indonesia, which is still facing various problems. Improving performance of SMEs in processing refined seaweed products in South Sulawesi is very important for the improvement of regional development which will ultimately improve the regional economy. Based on described research issues, this research is to examine and explain the effect of corporate entrepreneurship on performance of SMEs in processing refined seaweed products.

2. Literature Review, Hypothesis, and Research Model

2.1. Seaweed

Seaweed known as algae (seaweed) constitute the largest portion of marine plants, which grow and expand in almost all the waters of Indonesia and is one of the marine and fishery commodities that have been used for a long time as an export commodity (Winarno, 1990). Seaweed as one of export commodities is a source of income for the country and its cultivation as a source of income of fishermen, can absorb labor, and be able to use the land in the coastal waters of the Indonesian archipelago with huge potential. South Sulawesi waters are quite wide with a length of approximately 2500 km coast can be utilized for the benefit of seaweed cultivation. Seaweed has an important economic value because its use is widespread, as a food ingredient, the organic fertilizer industry, cosmetics industry, textile industry and pharmaceutical industry. Utilization of seaweed that is so great due to the seaweed contained various chemicals and other organic materials as well as vitamins (Hidayat, 1990). Therefore, seaweed cultivation in South Sulawesi has been conducted since 1983 with production quantities increasing. This research focus on SMEs processing seaweed as food ingredients.

2.2 Corporate Entrepreneurship

Kuratko et al. (1993) says corporate entrepreneurship / intrapreneurship is entrepreneurship in the company explain the behavior entrepreneurship within existing organizations. While Lumpkin and Dess (1996) argues that corporate entrepreneurship is the process and activity decision (oriented Entrepreneurial Orientation ie, consists of five dimensions, namely autonomy, innovation, risk-taking, proactiveness, and competitive aggressiveness. Dess et. al. (1999) looked at the corporate entrepreneurship as a process of two types of problems, namely, (1) to trade in existing organizations through internal innovation and cooperation, (2) changes in the organizational form through renewal strategies, such as the creation of new wealth through sources availability. Covin and Miles (1999) defines corporate entrepreneurship as a form of innovation in order to provide a new feel to the organization, marketing or industry to create competitive advantage, expanding the company's ability to take advantage of internal opportunities that exist through new sources that directly have an influence on organizational performance. Zahra et al., (2000) says that corporate entrepreneurship is the rate of innovation of the company, and renewal business. In conceptualizing corporate entrepreneurship, Antoncic and Hisrich (2001) defines corporate entrepreneurship as entrepreneurship in existing companies, refers to a process that is in existing companies, regardless of size, and leads to not only a new business but also the activities and other innovative orientations such as the development of products, services, technology, administration techniques, strategies, and new competitive pattern.

Morris et al., (2008) looked at the corporate entrepreneurship as a term used to describe entrepreneurial behavior in the upper and middle size enterprises already established. Morris et al., (2008) also says that corporate entrepreneurship is the embodiment of the company through a "corporate venturing" or "strategic entrepreneurship". Corporate venturing approach has similarities to adding new business or part of a new business through an equity investment for the company. Corporate venturing approach can be achieved through the implementation of three models, namely; internal corporate venturing, cooperative corporate venturing, and external corporate venturing. Instead, the approach of strategic entrepreneurship has similarities to enhance the competitive advantage of companies that can be done through renewal strategy, sustained regeneration, domain redefinition, organizational rejuvenation, and the business model reconstruction (Morris et al., 2008). Mokaya (2012) says that corporate entrepreneurship is a concept which embraces innovation as the main material for product development, process re-engineering or cutting costs, finding new markets, the adoption of new products
services that have been established, the formation of new businesses, and all that is not part of normal marketing and product development efforts of the company. Corporate entrepreneurship has three main characteristics, namely innovativeness, proactiveness, and risk-taking. Dimension innovativeness refers to the trend of companies involved in the development of new ideas, introduce the creative process that leads to products novelty, services, or advances in technology (Lumpkin and Dess, 1996; 2001; Morris and Kuratko, 2002; Wiklund and Shepherd, 2005; Karimi et al., 2011; Karacaoglu et al., 2013). Dimensions proactiveness demonstrated meeting the needs of the market opportunities by being first mover in the market. The purpose of the organization is to enlarge the existing market to gain advantage as the first mover in the competition, prompting the company to change its strategy to enter the market by providing products novelty and services that will ultimately affect the performance to innovate (Lumpkin and Dess, 2001; Bulut and Yilmaz, 2008). Dimensions risk-taking is the readiness to provide resources to exploit the opportunities and initiate projects although no results were uncertain. Risks can be minimized by the knowledge of the organization have the opportunity and the technology or the unique ability to exploit opportunities (Morris and Kuratko, 2002).

2.3 Firm Performance
The company's performance is a construction that is commonly used to measure the impact of a strategic orientation of the company. A decrease in the company's performance is certainly a problem and a challenge for the strategic orientation of the company to continue to maintain the good performance of the company through a strategic orientation in order to survive in the industry. To overcome the challenges, management theory states that corporate entrepreneurship approach in decision-making is very important for the success of the organization. The process of making a decision refer to the application of a corporate entrepreneurship as proposed by Lumpkin and Dess (1996). Based on the understanding of the entrepreneurial orientation proposed by some researchers, it can be concluded that the definition of the company's performance (performance) is a measure of success in strategic decision making efficient using companies resources effectively and efficiently for business continuity. There is a positive correlation between corporate entrepreneurship with organizational performance (Bulut and Yilmaz, 2008). In this context, corporate entrepreneurship factors related to how entrepreneurial behavior is applied to the face of competition is very tight and intense. Meanwhile, Tayeb (1995) tried to explain why some companies fail and some succeed. Indicators to measure the performance of the organization according to Lumpkin and Dess (1996) is the revenue growth, market share, profitability, and overall performance, stakeholder satisfaction; while according to Max Coulthard (2007), firm performance indicators are revenue growth (revenue growth), market share (market share), profitability, overall performance (overall performance), satisfaction of shareholders (stakeholder satisfaction). In this study, indicators to SMEs performance used are sales, profit, and asset growth.

2.4 Conceptualisation Model
Some research indicates that corporate entrepreneurship/intrapreneurial behavior (IB), namely: innovation, proactive and risk-taking, was positively related to organizational performance. There are several studies show that corporate entrepreneurship is not associated significantly with the organization's performance (Wiklund and Shepherd, 2005; Kolakovich, 2006; and Karacaoglu et al., 2013). In fact, there are also studies that indicate that the innovativeness dimension of corporate entrepreneurship does not affect the organization's performance (Chen and Cangahuala 2010; Shamsuddin et Al., 2012). In the previous studies, many used indicators of financial performance as a result of corporate entrepreneurship. This research will be developed based on the conceptual model proposed by Zahra (1991); Zahra and Covin (1995); Lumpkin and Dess (1996) which shows the relationship of corporate entrepreneurship and organizational performance and corroborated by the results of research Antoncic and Zorn (2004); Aktan and Bulut (2008); Antoncic and Scarlat (2008); Mahmood and Wahid (2012); and Shamsuddin et al., (2012). Based on theoretical and empirical studies that have been described previously, the conceptual framework of the linkages between corporate entrepreneurship (innovativeness, proactivenesss, and risk-taking. and firm performance can be visualized in Figure 1.
Based on development of hypotheses model, it can be seen the relationship between innovativeness (X1), pro-active ness (X2), and risk-taking (X3), with corporate entrepreneurship (Y1). Some empirical studies was done previously on these relationships, but yet there has not been a study particularly on this firm performance of SMEs in processing refined seaweed products. In this study, hypothesis developed as the following:

\[H_1\] : Innovativeness has positive effect on firm performance

\[H_2\] : Pro-active ness has positive effect on firm performance

\[H_3\] : Risk taking has positive effect on firm performance

3. Method
3.1 Purpose of the Research
The main objective of this research is to investigate and analyze to what extent the effect of corporate entrepreneurship on firm performance especially SMEs in processing refined seaweed products in South Sulawesi, Indonesia.

3.2 Instrument and Sampling Unit
Data collection instruments used in this study were interviews, surveys, and documentation. The use of interview techniques used to obtain primary data directly or using a questionnaire with top management at each SME processing refined seaweed products. The use of questioner techniques is aimed to obtain data from respondents about the variables to be measured, include: the dimensions of innovativeness in the form of corporate entrepreneurship, pro-active ness, and risk-taking and firm performance. Documentation techniques used to obtain data in the form of annual reports that have been available on SME processing refined seaweed products SME processing refined seaweed products SME processing refined seaweed products Respondents are 36 managers of SME processing refined seaweed products.

3.3 Data Analysis
The data was analyzed using Generalized Structured Component Analysis (GSCA). GSCA is a component-based SEM method which can be used for calculating scores and which is allowed for small samples (Hwang and Takane, 2004; Hwang et al., 2010). This method is chosen for the following considerations: (1) the model in a conceptual framework consists of hierarchical causal relations, that innovativeness, pro-active ness, and risk taking influence firm performance; (2) in verifying the undimensionality of various latent variable indicators both reflexive and formative, it is appropriate to use GSCA; (3) using GSCA does not need assumptions and can be performed on a series of latent variables simultaneously, hence a powerful and efficient method of analysis.

4. Result and Discussion
4.1 Validity and Reliability of Research Construct
Validity and reliability test of the data is very important to be done before analyzing the data. Based on literature review, factors were identified and derived from famous model construct. Validity of innovativeness, pro-active ness, risk taking, and firm performance was very satisfactory. All items of latent variables are significant at .05 or CR>1.96. These results indicate that all of items indicate good convergence validity. The value of AVE (Average Variance Extracted) for all latent variables is greater than .50. (Hwang et al., 2010), and therefore the
latent variables have adequate discriminant validity. Therefore, the research instrument for measuring all latent variables has fulfilled the criteria for convergence validity and discriminant validity (Hwang et al., 2010). The Cronbach’s alpha was calculated to verify the internal reliability of the items. Nunnally (1978) suggested that a minimum alpha of 0.6 sufficed for early stage of research. The Cronbach alpha estimated for innovativeness was 0.901, pro-activeness was 0.864, risk taking was 0.817, and firm performance was 0.949. All constructs have adequate reliability as the Cronbach’s alpha in this study were all much higher than 0.6.

4.2 Fitness Test of the Model

The fitness of the model test structurally is measured by using FIT and AFIT that equivalent with R-square total on path analysis or on PLS. FIT value shows total variance from all variables that can be explained by structural model. The FIT value ranges from zero to one. The higher the FIT value (closer to one), the higher the total variance can be explained by the model. AFIT value equivalent with R-square adjusted on regression analysis and it can be used for model comparison. If AFIT value in one model is higher than others, it shows that the model is the best to use.

Table 1: Model Fit

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<tr>
<th>MODEL FIT</th>
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<td>FIT</td>
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Structural model evaluation was performed after the model relationship was built in accordance with the data observation and goodness-of-fit models overall. Table 1 shows evident from the values of FIT, AFIT, GFI (unweighted least squares) and SRMR (standardized root mean square residual). The result of the test for relation among variables is evident from the values of path coefficient and critical point (CR), which is significant at $\alpha = .05$, as shown in Table 2. The goodness of fit of the structural model and overall model shows that the model specified in this research can explain 63.6% of the variance of the corrected data (adjusted FIT). Also, the value of GFI = .892 and SRMR = .401 shows that the model has acceptable fit since recommended GFI is $0.80 \leq \text{GFI} \geq 0.90$ (Tasmin and Wood, 2009) and SRMR is considered to be better when it is closer to zero (Solimun, 2010; Heungsun Hwang et al., 2010).

Table 2: Path Coefficient

<table>
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<tr>
<th>Path</th>
<th>Path Coefficients</th>
<th>Interpretation</th>
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<tbody>
<tr>
<td>Innovativeness (X1) $\rightarrow$ Firm Performance (Y1)</td>
<td>0.251 0.077 3.27$^*$</td>
<td>supported</td>
</tr>
<tr>
<td>Pro-activeness (X2) $\rightarrow$ Firm Performance (Y1)</td>
<td>0.505 0.119 4.24$^*$</td>
<td>supported</td>
</tr>
<tr>
<td>Risk-taking (X3) $\rightarrow$ Firm Performance (Y1)</td>
<td>0.260 0.076 3.41$^*$</td>
<td>supported</td>
</tr>
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4.3 Hypothesis Testing

4.3.1 Effects of Innovativeness on Firm Performance

$H_1$ claim that innovativeness has significant positive effects on firm performance. The regression weight is significant. Table 2 shows that innovativeness is positively and significantly related to firm performance ($b$: 0.251; CR: 3.27$^*$). Research findings support the theory stating that innovativeness may increase the firm performance (Aktan and Bulut, 2008; Karacaoglu et al., 2013).

4.3.2 Effects of Pro-activeness on Firm Performance

$H_2$ claim that pro-activeness has significant positive effects on firm performance. The regression weight is significant. Table 2 shows that pro-activeness is positively and significantly related to firm performance ($b$: 0.505; CR: 4.24$^*$). Research findings support the theory stating that pro-activeness may increase the firm performance (Aktan dan Bulut, 2008; Chen dan Cangahuala, 2010; Karacaoglu et al., 2013).

4.3.3 Effects of Risk-Taking on Firm Performance
H₃ claim that risk-taking has significant positive effects on firm performance. The regression weight is significant. Table 2 shows that risk-taking is positively and significantly related to asset firm performance ($b$: 0.260; CR: 3.41*). This finding affirms the assumption mentioned that risk-taking has positive effect on firm performance (Aktan and Bulut, 2008; Karacaoglu et al., 2013).

5. Theoretical and Managerial Implications
The theoretical contribution of this research is to develop the science of corporate entrepreneurship especially with dimensions of innovativeness, proactiveness, and risk taking. The contribution of this research is also to develop a conceptual and theoretical understanding on corporate entrepreneurship in the effort to improve performance, especially for SMEs in processing refined seaweed products.

The result of this research brings additional evidence on how innovativeness, proactiveness, and risk taking may influence the SMEs performance in terms of sales, profit, and asset growth. The practical implication of this study is to provide insight and knowledge to managers of SMEs in producing refined seaweed products, on how to increase the innovativeness, proactiveness, and risk taking in order to improve the SMEs performance in South Sulawesi, Indonesia and generally in other developing countries, in implementing the concept of corporate entrepreneurship in order to increase SMEs performance. The last is that managers of SMEs as leaders in the future should drive the implementation of corporate entrepreneurship strategy to improve firm performance.

6. Conclusion, Limitation and Future Research
This research is experimental research on performance of SMEs in seaweed refined products. We analyzed the role of corporate entrepreneurship with three dimensions: innovativeness, pro-activeness, and risk-taking as important variable for the successful implementation of corporate entrepreneurship to improve SMEs performance of refined seaweed products in South Sulawesi Province, Indonesia. The regression results indicate that each dimension of corporate entrepreneurship such as innovativeness, pro-activeness, and risk taking has positive and significant effect on SMEs performance. Given the wide scope of the discussion, this study has limitations in presenting the relationship of a cross sectional analysis. The changing of business strategy needs to be identified. Therefore, further research with longitudinal design is needed to re-examine whether the relationship between the variables analyzed in the study had changed. Furthermore, the accuracy for the model is .636. This means that 63.6% of the variance in the variable of innovativeness, pro-activeness, risk-taking, and firm performance can be explained by the model, and the remaining 36.4% is explained by other variables. Therefore, further studies in the future can develop a research model by adding variables such as antecedent variables of corporate entrepreneurship.

References


