Misfit-score Evaluation on Business and Manufacturing Strategies and the Impact on Operational Performance

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Abstract: This study aims to examine whether the higher degree of fit between business strategy and manufacturing strategy will create a higher operational performance. The degree of fit in strategic alignment research using misfit score because the basic assumption of configurational perspective is fit as a profile deviation and the misfit score calculated with the Euclidean distance formula. The configuration of ideal strategy types is grouped into two: business strategy type “Prospector” assumed to be aligned with manufacturing strategy type “differentiator” (code 1) and business strategy type “defender” that is more aligned with manufacturing strategy type “Innovator-efficient” (code 2). Hypothesis testing used 99 furniture companies in Indonesia and using simple regression. Regression test results in Group 1 produced negative coefficient values, and the p-value is significant, which means that the hypothesis is supported, while Group 2 have a positive coefficient value. However, p value is not significant, which means that the hypothesis is not supported.

1 INTRODUCTION

Small and medium-sized companies (SMEs) in Indonesia over the past decade have experienced significant development both in terms of the number of business units, the ability to provide employment, or the level of productivity (Rahmawati & Nurlela, 2008). However, despite this growth, SME business failures are still common occurrences. Research by Kusmantini, et al. (2014) identified that the factor triggering the failure of furniture SMEs in Yogyakarta Special Province (Daerah Istimewa Yogyakarta/DIY) in exports was the supplier's inability to fulfill the requirements of export documents such as Timber Legality Verification Certification (Sistem Verifikasi Legalitas Kayu/SVLK). Internal and external factors influence the success and failure of SMEs.

This research focuses on the internal aspects of the enterprises, especially aspects related to the decision making the process about the strategy, both business and manufacturing strategies, as recently there have been developments in research topics that use strategy implementation at the functional and business unit levels as a basis. Skinner (1978) asserts that manufacturing strategy is different from the business strategy because it is only one of the functional components, which in its implementation requires a fit with business strategy and marketing strategy. Therefore, the manufacturing strategy is called a functional sub-strategy.

In the 1960s, manufacturing contribution to overall corporate performance was less significant (Skinner, 1969), because the top management as the decision-maker had not yet understood the existence of a strategic relationship between manufacturing and business strategies (Swink et al., 2005; Ward et al., 2007; Shavarini et al., 2012). Thus, a set of decisions and activities in the factory (manufacturing) cannot support competitive strategy decisions at the corporate level. Mintzberg (1978) also emphasized the importance of alignment between business and manufacturing strategies because business strategy is a way for companies to determine the company's competitive position while the manufacturing strategy is a way to achieve and maintain the competitive position that the company wants. For this reason, it is important for each company to determine the sources of competitive advantage and determine positional advantages (for example, superior customer value or lower relative costs) that the company wants to achieve because each positional
advantage requires a fit between business strategies and sources of functional organizational competence (Baier et al., 2008), one of which is the field of production.

With regard to competency excellence in manufacturing (production), Oltra and Flor (2010) and Ward et al (2007) emphasize the importance of contingency approach. This is because the process of developing manufacturing capabilities as the basis of company competence is unique and specific in nature which is contingent with the company's internal resources or positional advantages that are targeted in a competitive strategy (Venkantraman and Camillus, 1984). Companies that are oriented as market pioneers and those oriented as imitators will need different resources and capabilities in manufacturing. The competitive strategy of a marketer-oriented company will also consider different manufacturing capabilities.

This research is based on Organizational Fit Theory proposed by Galbraith and Nathanson (1978), which state that strategies must be aligned with other internal factors of the company to achieve better performance. The concept of alignment referred to here is in accordance with the definition of fit proposed by Drazin and Van de Ven (1985), namely: “fit is the internal consistency of multiple structural characteristics; it affects performance characteristics.” This study specifically examines the degree of alignment between manufacturing and competitive strategies. In making decisions and implementing the manufacturing strategy at the functional level, it is important to have a fit in the choice of the company's competitive strategy that explicitly serves as the company's vision and mission in determining the company's competitive position.

This study attempts to answer three main questions: (1) whether there is a difference in the choice of manufacturing competencies in furniture companies in several furniture centers in Central Java and DIY, (2) how much is the degree of alignment between manufacturing and business strategies, (3) how much is the influence of the degree of alignment between manufacturing and business strategies on factory operational performance.

2 LITERATURE REVIEW

2.1 Organizational Fit Theory (OFT)

Organizational Fit Theory was first introduced by Galbraith and Nathanson (1978). The underlying principle of this theory is that in order to create better organizational performance, the alignment of strategy, structure, and other contingency factors is needed. Many typology approaches to strategy and fit of strategy-structure refer to the concept of contingency theory to improve performance. Some opinions emphasize the importance of strategy-structure management as one of the best ways for companies to be able to adapt to the climate of their respective industrial environments (Hage and Aiken, 1970; Lorsch and Morse, 1974). Some others argue that organizational effectiveness is the result of the accuracy of certain organizational characteristics to be able to adjust to the situation or context within the organization (Burns and Stalker, 1961; Hage and Aiken, 1969; Pugh et al., 1969; Galbraith, 1973; Priyono, 2004). Contingency factors include the environment (Burns and Stalker, 1961), organization size (Child, 1975), and functional strategies (Chandler, 1962; Baier et al., 2008; Vachon et al., 2009). This study argues that the alignment between business strategies and functional strategies, especially manufacturing strategies, can result in better company performance.

2.2 Contingency Theory

This theory states that in an effort to achieve effectiveness, organizations are required to make decisions and policies that are in accordance with the structure and internal factors of other organizations. When the complexity of manufacturing practices is contingent, the choice of certain manufacturing capabilities as a basis for competency is more suitable for a company and may be less suitable for other companies. Therefore, in contingency theory, organizational context becomes important.

Drazin and Van de Ven (1985) suggested three types of contingency approaches. First, a selection approach assumes that a fit as a consequence between organizational contextual factors that becomes fundamental without further testing whether the alignment is influential or not. Second, interaction approach characterizes a fit as the impact of interaction between strategy and contextual variables of the organization, and so the research focuses on explaining the performance as a result of the interaction between internal organizational variables (as contingency variables) and the strategy. Finally, system approach defines alignment as internal consistency over several fit category alternatives with several categorical structures that will affect performance (Venkantraman, 1990; Doty et al., 1993).
This study uses the system approach based on several taxonomic research results. The categorization of manufacturing strategies was adopted from the research by Sum et al (2004) which distinguishes the operating strategy group into 3 ideal types, namely Differentiator, All Rounder, and Efficient Innovator, which are assumed to be in line with the ideal type of business strategy developed by Miles and Snow (1978). However, the configuration of strategy-fit uses two types of extreme strategies: Prospectors that are more aligned with Differentiators manufacturing strategy, and Defenders that are aligned with the Efficient-Innovators manufacturing strategy.

### 2.3 Manufacturing Strategy

Skinner (1969) defines manufacturing strategy as a complex and dynamic decision-making process. This strategy is complicated because decisions related to assignments and activities in manufacturing must fit and be aligned with those related to corporate and other functions such as finance and marketing. Besides, the strategy is also dynamic, which means that it is able to adapt to changes in the circumstances.

Miller and Roth (1994) and Oltra and Flor (2010) highlight two core elements of the manufacturing strategy previously proposed by Skinner (1969). These two core elements are the manufacturing task and pattern of manufacturing choice. Manufacturing task is defined as manufacturing capabilities that can be used to achieve and maintain competitive positions targeted by the company. Skinner (1990); Hayes and Wheelwright (1984); Ferdows and De Meyer (1990); Roths and Miller (1992); Ward and Duray (1998) and Oltra and Flor (2010) suggest five critical capabilities in manufacturing: low production costs, product quality and performance, flexibility, product delivery and level of innovation.

The pattern of manufacturing choice relates to structural and infrastructural decisions in the company to support the choice of manufacturing capabilities (Schroeder et al., 1986; Sun and Hong, 2002). Structural decisions include choices on facilities, technology, vertical integration, capacity, and the factory location, while infrastructural decisions those related to organizational structure, quality management, workforce policies, and information systems architecture. This research focuses only on manufacturing tasks.

#### Table 1: Ten dimensions of manufacturing capability

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Flexibility</td>
<td>The ability to handle difficulties and nonstandard requests and produce products with a variety of shapes, choices, sizes, and colors</td>
</tr>
<tr>
<td>Volume Flexibility</td>
<td>The ability to quickly adjust production capacity</td>
</tr>
<tr>
<td>Process Flexibility</td>
<td>The ability to produce low-cost products and varied change products easily</td>
</tr>
<tr>
<td>Low Production Cost</td>
<td>The ability to minimize total production costs (such as direct labor costs, material, and operating costs)</td>
</tr>
<tr>
<td>Level of Innovation/ New Product Introduction</td>
<td>The ability to introduce increased product variations appropriately</td>
</tr>
<tr>
<td>Delivery Speed</td>
<td>The ability to ensure order quantities and anticipate order delivery times</td>
</tr>
<tr>
<td>Delivery Dependency</td>
<td>The ability to ensure order quantities and anticipate order delivery times</td>
</tr>
<tr>
<td>Product Quality</td>
<td>The ability to produce products with standard performance</td>
</tr>
<tr>
<td>Product Reliability</td>
<td>The ability to maximize product damage lifetime</td>
</tr>
<tr>
<td>Design Quality</td>
<td>The ability to provide products with shapes, models, and characteristics that possess competitive advantages</td>
</tr>
</tbody>
</table>

Source: Vickery et al. (1993); Oltra and Flor (2010)

Different studies tend to use different numbers of manufacturing task variables. For example, Miller and Roth (1994); Vickery et al. (1993) and Oltra and Flor (2010) used 11 dimensions, including the dimension of marketing competence, while Sum et al. (2004) used 8 dimensions, namely low production costs, process and product flexibility, product quality and reliability, speed and delivery dependency and innovation. Vickery et al. (1993), on the other hand, used 10 dimensions of manufacturing capability, as presented in Table 1.

### 2.4 Business Strategy

Porter classifies business strategy into three types (overall cost leadership, focus, and clear differentiation), each of which requires commitment and effective management of the organization. The first strategy, overall cost leadership, appeared in the
1970s due to the popularity of the experience curve concept (Porter, 1985). This strategy seeks to achieve low-cost leadership through efficient construction of existing facilities, careful and experience-based cost reduction, strict cost and overhead control, and cost minimization in areas such as research and development, services, sales force, and advertising (Ortega et al., 2012). The second strategy, "focus," centers on certain segments or buyers with certain products, certain markets, and certain geographic markets. In this regard, the focus strategy has several forms, namely the basic focus on achieving low costs or differentiation and the basic focus on differentiation followed by the achievement of low costs. The third strategy “pure differentiation” focuses more on creating something new and unique in the products offered to consumers. Companies that use these strategies usually focus on certain segments (Porter, 1985; Oltra and Flor, 2010). Differentiation strategies can be executed in various forms, such as design or brand image, technology and features (Ortega et al., 2012).

In contrast to Porter’s classification, Miles and Snow (1978) categorize business strategy choices into four typologies, namely: (1) prospector, (2) defender, (3) analyzer, and (4) reactor. Prospector is a strategy that emphasizes innovation and creativity to create new products. The company always strives to be a pioneer in competition and is willing to compensate for internal efficiency for innovation and creativity. A defender is a strategy to create stability and achieve corporate survival. The company’s focus is on achieving long-term stability and maintaining its core business without making too many strategic changes. The analyzer is a strategy that combines prospector and defender. This means that the company does not take risks in innovating, but it still attempts to create excellence in its services to the market. The reactor is a strategy that always focuses on efficiency without considering environmental changes, and organizations commonly use it without consistent adaptation strategies (unstable).

Smith et al. (1989) and Banchuen, et al. (2017) suggest that the four typologies of Miles and Snow (1978) reflect the environmental complexity faced by organizations and organizational processes from various dimensions, such as competition, consumer behavior, market situation and response, technology, organizational structure, and other managerial characteristics. On the other hand, the three typologies of Porter (1980) only generally describe the behavior of market competition.

3 RESEARCH METHODOLOGY

3.1 Population, Sample and Sampling Technique

The population in this study were all furniture factories in Central Java and Yogyakarta Special Province (DIY). However, for the convenience of data collection, this research focuses on companies in the furniture centers in Jepara, Kudus, Solo, Karanganyar, Klaten, and several companies in the DIY area. This study uses purposive sampling by selecting companies that employ more than 20 employees and have reached markets abroad to ensure a certain level of awareness and proper and continuous strategy planning.

3.2 Variables and Research Instruments

Variables in this study include manufacturing strategies (as measured by the dimensions of low production costs, product quality, and reliability, delivery, flexibility, and level of innovation), business strategies, and factory operational performance. Each variable is broken down into several questions with alternative answers in the form of strongly agree (score 5) until strongly disagree (score 1) based on the Likert scale.

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Keiser’s MSA</th>
<th>Factor loading</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manufacturing task</td>
<td>0.633</td>
<td>0.726 - 0.764</td>
<td>0.885</td>
</tr>
<tr>
<td>2</td>
<td>Low production cost Quality</td>
<td>0.729</td>
<td>0.643 - 0.768</td>
<td>0.571</td>
</tr>
<tr>
<td></td>
<td>Flexibility</td>
<td>0.738</td>
<td>0.698 - 0.825</td>
<td>0.707</td>
</tr>
<tr>
<td></td>
<td>Product Delivery</td>
<td>0.754</td>
<td>0.530 - 0.806</td>
<td>0.707</td>
</tr>
<tr>
<td></td>
<td>Innovation</td>
<td>0.655</td>
<td>0.785 - 0.882</td>
<td>0.707</td>
</tr>
<tr>
<td>2</td>
<td>Business Strategy</td>
<td>0.694</td>
<td>0.587 - 0.853</td>
<td>0.756</td>
</tr>
<tr>
<td>3</td>
<td>Operational Performance</td>
<td>0.500</td>
<td>0.884 - 0.911</td>
<td>0.568</td>
</tr>
</tbody>
</table>

The validity and reliability of the research instruments were tested with confirmatory factor analysis through principal component analysis using the Varimax rotation method. The test results indicate
the validity of the questions: Kaiser-Meyer-Olkin Measure of Sampling (Keiser's MSA) with criteria of > 0.5 and factor loading values of > 0.4 (Hair et al., 2005). Meanwhile, the reliability of each variable was tested with the Cronbach alpha coefficient, where a variable is considered reliable if the test results produce the Cronbach alpha value of > 0.5. The results of the validity and reliability testing are presented in Table 2.

4 DATA ANALYSIS TECHNIQUE

This study uses a simple linear regression test to answer the problem related to the misfit score and the magnitude of the influence of variable fit from the manufacturing strategy and business strategy on operational performance. This regression model does not use time-series data, and in behavioral studies, it is not used to predict a phenomenon, but only to explain the phenomenon, so that the classical assumption test is deemed unnecessary. In this model, what needs to be observed is multicollinearity, namely the existence of a perfect relationship among the independent variables in the regression model. However, because this study uses Euclidian distance scores or deviations from two independent variables, multicollinearity does not need to be detected, and thus the equation used is

\[ Y = \beta_0 + \beta_1 \text{Dist}.X_1.X_2 + \varepsilon, \]

\[ \text{Dist}.X_1.X_2 \] is the Euclidian distance from the manufacturing-business strategies; \( \text{Dist} \) is the Euclidian distance or misfit-score between variables of manufacturing strategy and business strategy as a contingent variable. The euclidian distance value is calculated by summing the amount of deviation or the difference in the ideal score for each ideal group (Drazin and Van de ven, 1985; Meyer et al., 1993; Priyono, 2004; Baeir et al., 2008) with the equation of

\[ \text{Dist} = \sum \sqrt{(X_{\text{id}} - X_{\text{ac}})^2} \]

5 DATA AND DISCUSSION

5.1 Data Quality Testing

5.1.1 Response Bias Test

Response bias test and difference tests were performed before measuring the misfit score of the variables from manufacturing strategy and business strategy and testing its effect on performance. Response bias test of control variables and research variables was conducted to detect significant differences between respondents who filled the questionnaire directly and those indirectly. If the difference between the results of the response bias test and the difference test proved to be insignificant, this means that the respondent’s answers from the two groups did not show any differences so that further analysis could be carried out.

Table 3. Response Bias Test on Research Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group Codes</th>
<th>N</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing Task</td>
<td>1, 2</td>
<td>62</td>
<td>0.018</td>
<td>0.928</td>
</tr>
<tr>
<td>Business Strategy</td>
<td>1, 2</td>
<td>62</td>
<td>0.108</td>
<td>0.743</td>
</tr>
<tr>
<td>Performance</td>
<td>1, 2</td>
<td>62</td>
<td>0.816</td>
<td>0.369</td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2018

Notes:
(1) Direct answers
(2) Indirect answers

Table 4. Difference Test of Manufacturing Strategy Groups Significant at p<0.05 (**)

<table>
<thead>
<tr>
<th>Manufacturing Task</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Production Cost</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIY</td>
<td>43</td>
<td>3.00</td>
<td>12.99</td>
<td>10.64</td>
<td>9.04</td>
</tr>
<tr>
<td>Central Java</td>
<td>56</td>
<td>4.21</td>
<td>8.33</td>
<td>7.44</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIY</td>
<td>43</td>
<td>4.14</td>
<td>32.12</td>
<td>22.58</td>
<td>23.67</td>
</tr>
<tr>
<td>Central Java</td>
<td>56</td>
<td>6.24</td>
<td>34.15</td>
<td>24.76</td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIY</td>
<td>43</td>
<td>7.82</td>
<td>30.12</td>
<td>28.76</td>
<td></td>
</tr>
<tr>
<td>Central Java</td>
<td>56</td>
<td>6.14</td>
<td>33.33</td>
<td>30.74</td>
<td></td>
</tr>
<tr>
<td>Product Delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIY</td>
<td>43</td>
<td>7.33</td>
<td>16.21</td>
<td>15.11</td>
<td>14.53</td>
</tr>
<tr>
<td>Central Java</td>
<td>56</td>
<td>7.33</td>
<td>14.99</td>
<td>13.95</td>
<td></td>
</tr>
<tr>
<td>Level of Innovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIY</td>
<td>43</td>
<td>2.33</td>
<td>10.33</td>
<td>9.30</td>
<td>9.58</td>
</tr>
<tr>
<td>Central Java</td>
<td>56</td>
<td>2.6</td>
<td>12.99</td>
<td>9.86</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows that the mean difference measured with the F test on respondents’ characteristics for each
group was insignificant with p values of > 0.05 for education level (0.430), business experience (0.115), manufacturing task (0.926), business strategy (0.743), and performance (0.369). It can be concluded that there is no significant difference in the control variables or research variables in the two respondent groups.

5.1.2 Difference Test of Manufacturing Strategies

To prove that differentiators and efficient-innovators groups have different manufacturing capability decisions, one-way ANOVA (Analysis of Variance) was used to test it. Table 4 shows that the manufacturing task had a significant F value with a p value of <0.05, which means that differentiators and efficient-innovators have different manufacturing capability choices.

5.2 Data Description

5.2.1 Order Winner Difference

The mean value of the five manufacturing task dimensions as the first element of manufacturing strategy is calculated for each sample. Table 5 shows the mean values, maximum and minimum values, and the total mean values of each dimension.

Table 5. Statistical Description of Manufacturing Task

<table>
<thead>
<tr>
<th>Group Codes</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficient-Innovators (1)</td>
<td>7</td>
<td>81.236</td>
<td>13.8452</td>
<td>22.492 **</td>
</tr>
<tr>
<td>Differentiators (2)</td>
<td>2</td>
<td>86.090</td>
<td>13.7105</td>
<td></td>
</tr>
</tbody>
</table>

Source: primary data processed, 2018

5.2.2 Low Production Cost

In this dimension, the mean difference between DIY and Central Java was relatively small. This is supported by observations in the field where companies in DIY and Central Java, in the production process, do not assign special employees to handle plant operations. Most owners carry out inspection processes by themselves. The high mean value in DIY may be due to the intensive technical assistance and training organized by the relevant government agencies. Meanwhile, in Central Java because of the wide spread of SME’s, the company’s access to training by the government agencies is fairly limited. The ability to create efficiency may be due to the lack of technical assistance provided by companies in Central Java.

5.2.3 Quality

Table 5 shows that the mean value of quality dimension was higher in Central Java. This may be due to the positive behavior of entrepreneurs in Central Java in training and technology mastery development program held by the industry agency. In contrast, entrepreneurs in DIY tend to have low motivation to be involved in such programs. The results of the interview with Mr. Yulianto, the administrator of the Yogyakarta Furniture Association, revealed that access to training was only obtained by a few entrepreneurs who had close relations with the agency. Training opportunities are considered unequal.

5.2.4 Flexibility

Most entrepreneurs in Central Java and DIY are always ready when customers request changes in product design, quantity and quality specifications. They produce according to customers’ requests. However, only companies that have mass-standardized themselves prepare to ensure the continuity of the production process, with the use of generators or cooperation with the State Electricity Company (PLN) to get early notifications before a power outage. The average value of flexibility in DIY was higher, and this is supported by field observations where most entrepreneurs in Central Java were relatively individualized (not interconnected), and most of the companies are family businesses.

5.2.5 Product Delivery

The difference in mean values of this dimension between companies in Central Java and DIY was relatively small. The results of interviews with several large companies in DIY who have partnered with logistics service companies or have been able to independently export show that the company can fulfill the orders of foreign buyers according to specifications and deliver them on time. Meanwhile, the results of interviews with several companies in Jepara and Klaten reveal that most companies still prioritize partnerships with local traders. They focus on meeting the needs of local consumers so that the culture of fulfilling orders promptly has not been fully developed because some local customers tend to have a high tolerance for untimely product delivery.
5.2.6 Level of Innovation

The difference in mean values in this dimension between Central Java and DIY is relatively small and insignificant. This is consistent with the results of interviews in the field where most product design changes are tailored to customer demand. The development of information technology makes it easier for companies to access the development of product models quickly so that understanding of market preferences can be understood quickly.

5.3 Determination of Misfit Score with Euclidean Distance

The alignment or ideal profile is the fit between capability choice decisions in the manufacturing and those in business strategies as the vertical alignment. Alignment In efficient-innovators and differentiators groups and alignment in defenders and prospectors groups is based on theoretical approaches, ideal profile scores for differentiators were 35 (prospectors) and efficient - innovators were 7 (defenders).

The results of descriptive statistical processing of the manufacturing strategy variables show that the mean, standard deviation, and range values were 85.0409, 13.71, and 44.37, respectively. In the data processing for regression analysis, the researchers used the mean split of manufacturing strategy elements. For manufacturing tasks (choice of capabilities in manufacturing), scores for each group are distinguished by mean values. If the score is above 85.0409, the respondents’ answers will be grouped as differentiators. Furthermore, the ideal configuration of the group is supported by the prospectors category. Conversely, efficient - innovators are groups of respondents whose values are below 85.0409, which is more aligned with the defenders. Then, to hypothesis testing using the misfit score for each strategy, groups and misfit score is calculated with euclidian distance.

5.4 Regression Analysis Results

5.4.1 Efficient – Innovators Group Analysis

Efficient-innovators are groups of companies that tend to defend to achieve efficiency (through low production costs) and are less aggressive in marketing or creating new markets. The taxonomic approach developed by Sum, Kou, and Chen (2004) describes SME groups in Singapore as efficient - innovators because their main focus is achieving efficiency. To always be competitive, companies are always required to innovate, but these innovations do not emphasize their product uniqueness but merely follow the market trend so that innovation costs can be minimized. Competence for product delivery, especially the speed of product delivery, is also prioritized.

A total of 76 companies are classified as efficient - innovators because they are oriented towards achieving production efficiency. However, based on interviews, there are still many companies that do not carry out inspections at the plant continuously, even though they are aware that production process activities are not optimal. The lack of efficiency in the production process is caused by the fulfillment of orders by trial and errors in modeling, lack of technicians or skilled employees, and weak mastery of imported machinery and equipment. Many companies bear considerable engine maintenance costs because the engine components must be imported.

Table 6. Regression Results

<table>
<thead>
<tr>
<th>Statistical Values</th>
<th>Defender_Efficient_Innovator (n=76)</th>
<th>Prospector_Differentiator (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression coeff. (b)</td>
<td>0.235</td>
<td>-0.390**</td>
</tr>
<tr>
<td>tcount</td>
<td>2.075</td>
<td>-2.416</td>
</tr>
<tr>
<td>Constant</td>
<td>5.481</td>
<td>7.536</td>
</tr>
<tr>
<td>R square</td>
<td>0.235</td>
<td>0.090</td>
</tr>
</tbody>
</table>

**Sign p<0.05

Table 6 shows the results of the t test. The t-count value was 2.075, while the t-table value was 2.680 (with a significance value of 5%, df = n - 2 = 76-2 = 74). The t-count result was lower than t-table. In addition, the regression coefficient value was 0.235 (positive) and not significant (p> 0.05), which means that there is no fit between manufacturing task and business strategies in the defender_efficient innovators group so that their effect on operational performance cannot be proven.

The result of this study is consistent with that by Ortega et al (2012), which identified that efficiency failure in the innovation development in companies was largely triggered by the company's inability to synchronize their business with their partners'. Most furniture industries in Central Java and DIY, in the development of product models, are often constrained by frequent delays in the supply of raw materials, because business owners rarely share information with their business partners such as log and sawmill suppliers. The farmers' role as log suppliers is not
properly understood by the manufacturers, and thus triggers delays in fulfilling orders. Bancheun, et al (2017) suggest that the creation of effective innovations in the field of production can be supported by the collaborative development of production plans with related parties such as raw material suppliers.

Most SMEs oriented to local markets are included in the efficient - innovators group and they face different problems, for example, sluggish domestic market conditions that force them to reduce production capacity. Some companies fail to develop innovations because of weak employees’ ability and skill. The findings in the field prove that the defender groups fail to develop innovations efficiently because they are short-term, rather than long-term oriented.

### 5.4.2 Differentiator Group Analysis

Differentiator is a group of companies that always aggressively market their products and expand their markets, have strong motivation to invest in production expansion for the long term, and always create product innovation. The group also prioritizes product quality and reliability, focusing on creating new products or product uniqueness despite the high production costs. Table 6 shows the regression coefficient (standardized) of -0.390 (negative) and not significant (p= 0.082), which means that there was no fit between the decision of capability choices and strategy in the groups. This result is supported by a relatively small misfit score.

Based on the results of interviews and observations, the lack of fit between the decisions of capability choices and business strategy is because the companies in this group are less aggressive in marketing and expanding market share. For example, only a few companies in DIY market their products online. Many companies have websites but the information is not up to date. Most companies still rely on third parties for export management, although some centers already have a place for joint business development such as cooperatives. However, cooperative activities are still relatively limited because the entrepreneurs’ interest to attend such cooperative programs are still very weak.

The small number of companies in the group is consistent with the reality in the field, where only a few companies have succeeded in establishing partnerships with foreign buyers. This indicates that there are still few companies capable of producing high quality and reliability products. The low degree of fit may also be caused by the reluctance of companies to invest long-term and the small amount of funds available for quality improvement, even though banks have eased financial access to the companies. This is consistent with the results of Bancheun et al (2017) study which found that most exporters experienced a business failure because in their efforts to fulfilling foreign orders, companies used bank loans for working capital. The slow turnover of money in dealing with foreign buyers triggers a large bank interest expense. A number of export-oriented companies are reluctant to invest in long-term because of the slow turnover of income and hence cause an imbalance between profit margins received and bank loan interest. Most company partners make payments after the order is delivered, when in fact the production process until delivery takes up to 3 to 4 months. The interest expense that must be borne for these four months is not covered by the profit margin received.

### 6 IMPLICATIONS FOR PRACTITIONERS

One interesting issue to study further regarding the ideal configuration theory is the addition of new elements of manufacturing strategy, such as structural and infrastructural decision elements that fit the market aspects or the process choice used. In addition, configurational theories on heterogeneous samples and companies other than the furniture industry also need to be further investigated. The reality in the field shows that the failure of furniture product exports is caused by the companies’ inability to complete export documents, one of which is a document that guarantees that the wood raw materials used for the products are obtained from sustainable forest management. The inability of business owners to complete the documents is triggered by the weak documentation by log and sawmill suppliers in the chain of custody of raw material sources. This is predicted by the researchers as one of the causes of the low misfit-score, and it is difficult to predict the magnitude of the influence of the fit of the choice of manufacturing capabilities with a business strategy on performance. In reality, the incompleteness of export documents has caused entrepreneurs to experience difficulties in developing capability choices in manufacturing to support their business strategies. This problem requires support from various stakeholders to create the sustainability of the upstream-downstream furniture supply chain.
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