ANALYSING FACTORS THAT AFFECT UD. S COMPETITIVENESS TO SUPPLIERS

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ABSTRACT

The thesis investigates factors that affect UD. S competitiveness to suppliers. UD. S is a family business in husk rice milling sector. One of the major problem that UD. S is facing is the need of raw materials that hasn't been fulfilled, although the availability is high. Besides, there is also the business competition in obtaining raw materials from suppliers. The aim of this research is to investigate factors that affect UD. S competitiveness toward suppliers. This research used quantitative method, which is exploratory factor analysis. The population is the suppliers of rice husk in Jember city. The samples are 30 respondents of suppliers that deliver rice husk to UD. S. The data is collected by questionnaires of Likert scale. Each respondent filled the questionnaire once. The questionnaires items had been tested to be valid and reliable.

In this research, there are 10 variables to be analysed, which are price, quantity, geographic location, service, payment, bonus, trust, informal relationship, dependence, and contract. The result of factor analysis based on respondents survey is that there are four factors that simplifies the previous 10 variables. The factors are specification, relational, responsibility, and geographic location. Specification factor includes price, quantity, bonus, and contract variables. Relational factor includes service, trust, and informal relationship factors. Responsibility factor includes payment and dependence factors. Meanwhile, geographic location factor includes geographic location variable. The conclusion of this research is that there are four factors that affect UD. S competitiveness toward suppliers, which are specification, relational, responsibility, and geographic location. By considering that factors UD. S may have high level of competitiveness toward suppliers that is hopefully capable of fulfilling the need of raw materials.

Keywords: Factor, Competitiveness, Supplier, Management, Supply Chain

INTRODUCTION

Nowadays, family business has been a trending topic in both formal and informal management forums. That is because there are many family companies exist worldwide at the moment and their effect to economics. Family business is a company that at least
half of the stocks belong to one or two family (ies) (Marpa, 2012:3). UD. S. is a family business that is running by the second generation as the one and only successor. UD. S is a family business in farming and rice husk milling sector. It was founded in 1999 by the first generation in Jember city. The initial capacity of husk rice milling in UD. S was 336 tons per month. At the moment, the capacity reaches 1,008 tons per month. The main product of UD. S is rice husk flour in two sizes, which are 0.6 mm and 0.9 mm. The raw material in production process is rice husk that is obtained from some suppliers in Jember. Husk rice is the outer skin of rice that is separated during the milling process. It is contained about 20% of rice weights.

Table 1. Data of Needed Raw Materials and Delivered Raw Materials to UD. S in April 2012 to June 2014 (kgs)

<table>
<thead>
<tr>
<th>Month</th>
<th>Husk Needed</th>
<th>Husk Delivered</th>
<th>Bulan</th>
<th>Husk Needed</th>
<th>Husk Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-Apr</td>
<td>150500</td>
<td>123310</td>
<td>13-Jun</td>
<td>602000</td>
<td>508230</td>
</tr>
<tr>
<td>12-May</td>
<td>301000</td>
<td>252050</td>
<td>13-Jul</td>
<td>903000</td>
<td>782350</td>
</tr>
<tr>
<td>12-Jun</td>
<td>301000</td>
<td>266770</td>
<td>13-Aug</td>
<td>903000</td>
<td>600210</td>
</tr>
<tr>
<td>12-Jul</td>
<td>301000</td>
<td>326050</td>
<td>13-Sep</td>
<td>903000</td>
<td>665580</td>
</tr>
<tr>
<td>12-Aug</td>
<td>301000</td>
<td>203640</td>
<td>13-Oct</td>
<td>903000</td>
<td>617260</td>
</tr>
<tr>
<td>12-Sep</td>
<td>301000</td>
<td>340230</td>
<td>13-Nov</td>
<td>903000</td>
<td>599140</td>
</tr>
<tr>
<td>12-Oct</td>
<td>301000</td>
<td>302940</td>
<td>13-Dec</td>
<td>903000</td>
<td>758630</td>
</tr>
<tr>
<td>12-Nov</td>
<td>301000</td>
<td>320480</td>
<td>14-Jan</td>
<td>903000</td>
<td>804769</td>
</tr>
<tr>
<td>12-Dec</td>
<td>301000</td>
<td>355820</td>
<td>14-Feb</td>
<td>903000</td>
<td>685310</td>
</tr>
<tr>
<td>13-Jan</td>
<td>301000</td>
<td>444740</td>
<td>14-Mar</td>
<td>903000</td>
<td>832140</td>
</tr>
<tr>
<td>13-Feb</td>
<td>602000</td>
<td>544319</td>
<td>14-Apr</td>
<td>903000</td>
<td>961170</td>
</tr>
<tr>
<td>13-Mar</td>
<td>602000</td>
<td>627460</td>
<td>14-May</td>
<td>903000</td>
<td>1045600</td>
</tr>
<tr>
<td>13-Apr</td>
<td>602000</td>
<td>612717</td>
<td>14-Jun</td>
<td>903000</td>
<td>1021560</td>
</tr>
<tr>
<td>13-May</td>
<td>602000</td>
<td>562230</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the data of rice husk availability in Jember and UD. S raw materials needed, it is known that the need of rice husk in UD. S has not been fulfilled yet. It is caused by some companies that need rice husk for fuel, covering layer in farm, or processing it to become rice husk flour. Companies that need risk husk for fuel are milling rice companies, sugar companies, tobacco storages, farms, and the producers of red bricks and roof top tiles.

Figure 1. UD. S Supply Chain

Figure 1. describes about supply chain, sending raw materials to UD. S for Rp 250 per kg. With the production cost, it is known that the basic production cost is Rp 450 per kg. The selling price to UD. S customers is Rp 650 up to 700. The price is below UD. S competitors to customers which is Rp 725 up to 750 per kg. However, there is a problem that some businesses also use rice husk as the raw materials. Therefore, the suppliers can choose to deliver raw materials to UD. S competitors with the higher price about Rp 275 – 300. It causes the negotiation power toward UD. S, if UD. S is willing to raise the cost of husk rice bought from suppliers the same as the cost to customers, it will affect UD. S profitability.
Problem Statement
The problem statement of this research is: “What are the factors that affect competitiveness of UD. S to suppliers”

Purpose
The purpose of this research is to investigate the factors that affect competitiveness of UD. S to suppliers.

LITERATURE REVIEW
Competitiveness plays as the important role to make the companies do not only survive but also keep developing and winning over the competitors. Business competitiveness is also related to the companies ability to achieve profits (Stevenson, Chuong, 2014:41). To increase business competitiveness and creating competitive superiority, companies need to develop strategies of business management (Assauri, 2013:12). About the problem that UD. S is facing, the strategy used is supply chain management, which is procuring management. Suppliers are the externals that are responsible to deliver products or services as companies raw materials. Suppliers are also vital in supply chain as one of the main key for business success. According to Gyau, et al. (2011), attitude factors which are relational management and price satisfaction have the positive effect to business relationship between a milk company and a cow farmer as a supplier.

METHODS
This research is a quantitative study that use exploratory factor analysis to explain a sample generalisation to the population of describing relationship, difference, or effect of a variable to the other one. The research is done with 73 population of rice husk suppliers in Jember city. The samples chosen are 30 people. Sampling technique used is purposive sampling which the chosen ones are rice husk suppliers that deliver their products to UD. S.
Data of this research is taken using questionnaires that are filled by the respondents. This technique provides written questions to the respondents to be answered. In the questionnaires, an indicator measurement method is used in Likert scale with 5
categorical answers which are strongly agree, agree, neutral, disagree, and strongly disagree. The variables and indicators used in questionnaires can be seen below:

Table 2. The Variables and Indicators in Research Questionnaires

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Price (X1)</td>
<td>• price compatibility between the supplier and the buyer at the moment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• price transparency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• price satisfaction compared to competitors</td>
</tr>
<tr>
<td>2.</td>
<td>Quantity (X2)</td>
<td>• the amount taken by the buyer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• continuity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• information about the quantity needed</td>
</tr>
<tr>
<td>3.</td>
<td>Geographic Location (X3)</td>
<td>• distance between supplier and buyer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the ease of road access</td>
</tr>
<tr>
<td>4.</td>
<td>Service (X4)</td>
<td>• employees’ hospitality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• employees’ honesty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• fast welcoming service</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• responsive in giving solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• additional facilities</td>
</tr>
<tr>
<td>5.</td>
<td>Payment (X5)</td>
<td>• period of time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• method</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• appropriateness</td>
</tr>
<tr>
<td>6.</td>
<td>Bonus (X6)</td>
<td>• amount</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• type or form of bonus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• terms and conditions</td>
</tr>
<tr>
<td>7.</td>
<td>Trust (X7)</td>
<td>• great reputation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• trustworthiness</td>
</tr>
<tr>
<td>8.</td>
<td>Informal Relationship (X8)</td>
<td>• did something meaningful in the past</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• attention / concern outside of business</td>
</tr>
<tr>
<td>9.</td>
<td>Dependence (X9)</td>
<td>• total number of buyers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• supplier’s products as the important materials to buyer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• buyer as the important company to supplier</td>
</tr>
<tr>
<td>10.</td>
<td>Contract (X10)</td>
<td>• the need</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• negotiation process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• buyer’s commitment</td>
</tr>
</tbody>
</table>

Before the distribution to respondents, the questionnaires were tested for validity and reliability. The criteria of a valid indicator is that the significance value is below 0.05 (Usman, Sobari, 2013:15). Meanwhile, the criterias of a reliable indicator are the value of Cronbach’s Alpha is above 0.6 and the value of Cronbach’s Alpha if item deleted is not more than the Cronbach’s Alpha value (Augustine, Kristaung, 2013:73). According to the result of validity and reliability tests, all indicators are stated to be valid. There are two unreliable indicators that need to be eliminated.

The data from respondents is analysed using analysis factor with SPSS software. At first, the data is tested using Kaiser-Meyer-Olkin (KMO) Test and Barlett’s test to determine whether it is reasonable to use analysis factor, statistically suitable, and able to show the correlation between variables. If the value of KMO test result is above 0.5, then analysis factor is reasonable to use. Meanwhile, if the significance of Barlett’s Test
result is below 0.05, then it will show the correlation between variables (Augustine, Kristaung, 2013:197). Using analysis factor, the eigenvalue will be investigated to show how many factors that are formed in the end. Factors will fulfill the criteria if its eigenvalue is more than 1 (Simamora, 2005:135). The final step to investigate the forming variables is by considering the result of rotated component. In this research, the factor rotation uses varimax method.

**FINDINGS**

The result of Kaiser-Meyer-Olkin (KMO) Test and Barlett’s Test are described in Table 3 below.

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>2</td>
<td>1.983</td>
<td>19.833</td>
<td>53.413</td>
</tr>
<tr>
<td>3</td>
<td>1.332</td>
<td>13.316</td>
<td>66.729</td>
</tr>
<tr>
<td>4</td>
<td>1.135</td>
<td>11.353</td>
<td>78.082</td>
</tr>
</tbody>
</table>

According to the table above, there will be 4 new factors formed that have eigenvalue 3.358 (factor 1), 1.983 (factor 2), 1.332 (factor 3), dan 1.135 (factor 4). Those four factors have the significant effect to UD S competitiveness to suppliers with the total cumulative value is 78.082%. After investigating the new formed factors, the next step is rotated component to support loading factor. Besides, the determined variables will be divided to the new and clear factors.
According to the table above, it is known from the result of rotated component. Determining the forming factors can be done by considering the highest loading factors. In factor 1, the highest loading factors are X1, X2, X6, and X10. In factor 2, the highest loading factors are X4, X7, and X8. In factor 3, the highest loading factors are X5 and X9. Meanwhile, in factor 4, the highest loading factor is X3.

Table 5 describes the factors names and the forming variables. According to analysis factor result, it is investigated that the cumulative value from the new four factors is 78.082%.

CONCLUSION
According to the result of this research, it can be concluded that there are 4 forming factors that affect UD. S competitiveness to suppliers, which are:
   a. Spesification Factor
   b. Relational Factor
   c. Responsibility Factor
   d. Geographic Location Factor
REFERENCES


Marpa, Nyoman. 2012 Perusahaan Keluarga Sukses atau Mati. Tangerang: Cergas Media

