

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)

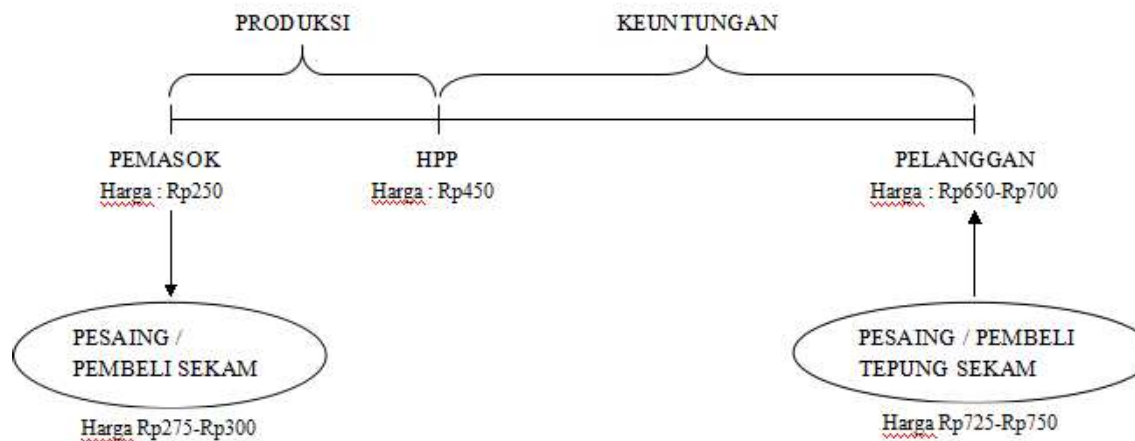
Month	Husk Needed	Husk Delivered	Bulan	Husk Needed	Husk Delivered
12-Apr	150500	123310	13-Jun	602000	508230
12-May	301000	252050	13-Jul	903000	782350
12-Jun	301000	266770	13-Aug	903000	600210
12-Jul	301000	326050	13-Sep	903000	665580
12-Aug	301000	203640	13-Oct	903000	617260
12-Sep	301000	340230	13-Nov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

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 wich 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.

Figure Supply Chain Chart UD



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 an 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 company's ability to achieve profits (Stevenson, Chuong, 2014:41). To increase business competitiveness and create 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 procurement management. Suppliers are the externals that are responsible to deliver products or services as companies' raw materials. Suppliers are also vital in the supply chain as one of the main keys for business success. According to Gyau, et al. (2011), attitude factors which are relational management and price satisfaction have a positive effect on the business relationship between a milk company and a cow farmer as a supplier.

METHODS

This research is a quantitative study that uses exploratory factor analysis to explain a sample generalization to the population of describing relationships, differences, or effects of a variable on another one. The research is done with a population of 73 rice husk suppliers in Jember city. The samples chosen are 30 people. The sampling technique used is purposive sampling, where the chosen ones are rice husk suppliers that deliver their products to UD. S.

Data for 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 a 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 Variabels and Indicators in Research Questionnaires

No.	Variables	Indicators
1.	Price (X1)	<ul style="list-style-type: none"> price comatibility between the supplier and the buyer at the moment price transparency price satisfaction compared to competitors
2.	Quantity (X2)	<ul style="list-style-type: none"> the amount taken by the buyer continuity information about the quantity needed
3.	Geographic Location (X3)	<ul style="list-style-type: none"> distance between supplier and buyer the ease of road access
4.	Service (X4)	<ul style="list-style-type: none"> employees' hospitality employees' honesty fast welcoming service responsive in giving solutions additional facilities
5.	Payment (X5)	<ul style="list-style-type: none"> period of time method appropriateness
6.	Bonus (X6)	<ul style="list-style-type: none"> amount type or form of bonus terms and conditions
7.	Trust (X7)	<ul style="list-style-type: none"> great reputation trustworthiness
8.	Informal Relationship (X8)	<ul style="list-style-type: none"> did something meaningful in the past attention / concern outside of business
9.	Dependence (X9)	<ul style="list-style-type: none"> total number of buyers supplier' products as the important materials to buyer buyer as the important company to supplier
10.	Contract (X10)	<ul style="list-style-type: none"> the need negotiation process buyer's commitment

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 3. Uji *Kaiser-Meyer-Olkin* (KMO) dan Barlett’s Test

<i>KMO and Bartlett's Test</i>		
<i>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</i>		.617
<i>Bartlett's Test of Sphericity</i>	<i>Approx. Chi-Square</i>	126,953
	df	45
	Sig.	.000

From the table above, it is known that the value of *Kaiser-Meyer-Olkin* (KMO) is 0.617 that shows that analysis factor is reasonable to use. Meanwhile, based on Barlett’s Test it is known that the significance value equals to 0.000 that shows that there is a correlation between variables.

To investigate the new factors formed, it is shown by the eigenvalues in Table 3 below.

Table 3. Tabel Total Variance Explained

<i>Component</i>	<i>Initial Eigenvalues</i>			<i>Extraction Sums of Squared Loadings</i>			<i>Rotation Sums of Squared Loadings</i>		
	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Total</i>	<i>% of Variance</i>	<i>Cumulative %</i>
1	3.358	33.580	33.580	3.358	33.580	33.580	2.584	25.843	25.843
2	1.983	19.833	53.413	1.983	19.833	53.413	2.468	24.683	50.527
3	1.332	13.316	66.729	1.332	13.316	66.729	1.518	15.175	65.702
4	1.135	11.353	78.082	1.135	11.353	78.082	1.238	12.380	78.082

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.

Table 4. Rotated Component Matrix

	Component			
	1	2	3	4
X1	.878	.315	.213	-.071
X2	.842	.083	-.197	.270
X3	.024	.074	-.010	.890
X4	.442	.758	.257	-.031
X5	-.022	.128	-.758	-.387
X6	.449	.390	.434	-.293
X7	-.252	.870	.092	.108
X8	.147	.869	-.130	-.014
X9	.121	.166	.718	-.305
X10	-.779	.271	-.249	.163

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. Factor Analysis Result

Formed Factor	Eigenvalue	Forming Variabels	Loading Factor Value
Factor 1 (Spesification)	3.358	Price (X1)	0.878
		Quantity (X2)	0.842
		Bonus (X6)	0.449
		Contract (X10)	-0.779
Factor 2 (Relational)	1.983	Service (X4)	0.758
		Trust (X7)	0.870
		Informal Relationship (X8)	0.869
Factor 3 (Responsibility)	1.332	Payment (X5)	-0.758
		Dependence (X9)	0.718
Faktor 4 (Geographic Location)	1.135	Geographic Location (X3)	0.890

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

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