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The Implementation of Market Based Strategy to Improve The Customer Loyalty in The Green Food Product Industry in Indonesia

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ABSTRACT

Green Food product industry can be one of solution to handle the food crisis in Indonesia. The agriculture of green food product is seen from the production and market as a product that freely to evolve and has a change to search for an appropriate form to fill the development goals. The purpose of this research is to determine the manager strategy in improving the customer loyalty on the green food product industry in Indonesia. The research methodology is descriptive survey and explanatory survey. The sources of data in this research are the managers those are involved in the production of the green food product in West Java Province, Jakarta, Yogyakarta, and Banten Province. The primary data were collected by using questionnaires and interviews to the managers or owners of green food product manufacturers. The secondary data were collected by searching the documents which are relevant to the issues under the study. The results of descriptive data analysis of research variables showed the market-based strategy, customer value, customer satisfaction and customer loyalty are in a quite well category. The market-based strategy influence significantly customer value and customer satisfaction, while the customer satisfaction and the customer value influence significantly customer loyalty. In more detail, both customer value and customer satisfaction have positive effect to customer loyalty of green food product.

Keywords: *Market based, Customer value, Customer satisfaction, and Customer loyalty*

I. INTRODUCTION

The development of green food product industry in Indonesia refers to the following regulation:

Farm of continuation food agriculture protection is area of agriculture farm specified to be protected and developed consistently utilize to yield fundamental food for independence, resilience, and sovereignty of

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national food (Law of Republic of Indonesia number 41 year 2009 about farm of continuation food agriculture protection, chapter 1 section 1):.

Moreover, green food product industry also refers to the Indonesian National Standard (SNI) of organic agriculture that is approved by the National Standardization Agency through BSN SNI 01-6729-2002. This standard is based on inter-state agreements contained in the Codex Alimentarius Guidelines for the production, processing, labelling, and marketing of organically produced foods. The Indonesian government has provided facilitation for the certification and labeling of organic agriculture with the basis of SNI 01-6729-2006, about the organic food system. The Ministry of Agriculture launches a program “go organic 2014” that can be divided into six stages: socialization, socialization and regulation, regulation and technical assistance, technical assistance and certification, certification and marketing, industrialization and trade (Sebastian, 2008:102).

In a meanwhile, market share of green food product industry is still relatively low compare to its competitor, especially in Indonesia. One way to overcome this problem is by using marketing as the basis for business processes especially in producing products and services. Furthermore, the organization is making the best use of customer information. Resources and fund are primarily used to solve customer problems (Afiff, 2004:17). Schroder and Movondo (2000:2344) argue that this kind of approach, generally called marketing orientation, focuses on competitors and customers. The information about these two stake holders are then used to managed internal organization. Therefore, organizational activities are mainly intended to satisfy customer needs. In general, many researches show that marketing orientation is positively related to firm performance.

An important in market orientation approach is customer value, which is defined as the difference between the total value or benefit of customers and total customer cost (Bradley, 2003 in Afiff, 2004:18). Customer value will lead to customer satisfaction. According to Kotler and Armstrong (2004:17), customer satisfaction will be obtained if product performance meets its customer expectations. On the other hand, customers will be disappointed if its marketing performance below expectations, or the value provided to its customers is very low. Satisfaction explains a category of concept that assists customers in making purchase decisions for the welfare of his life.

A direct relationship between customer satisfaction and loyalty has been proved by former studies. Kuusik (2007:6) defines customer loyalty as a function of the share in total purchases. Furthermore, customer loyalty can be differentiated into two categories; they are loyalty based on habit and emotion. Emotional loyalty is stronger and last longer than habitual loyalty, because customers have a strong willingness to maintain the relationship. Strong bond customers will continually buy the product and recommend it to other customers. They also try to defend their choice and feel certain that they have made a good buying decision.

II. METHODOLOGY

Development of measurement items is conducted based on the research variables, which are market based strategy, customer value, customer satisfaction and customer loyalty. Minimal sample size is determined by the iteration technique with the following formula:

$$n1 = \left(\frac{Z_{1-\alpha} + Z_{1-\beta}}{(U_p)'} \right)^2 + 3 \quad \text{Which } U_p' = \frac{1}{2} Ln \left(\frac{1+\rho}{1-\rho} \right)$$

$$n2 = \left(\frac{Z_{1-\alpha} + Z_{1-\beta}}{(U_p)''} \right)^2 + 3 \quad \text{Which } U_p'' = \frac{1}{2} Ln \left(\frac{1+\rho}{1-\rho} \right) + \left(\frac{\rho}{2(n_1-1)} \right)$$

$n_1 \neq n_2$, iterations performed by the formula n_1 and U_p as referring to n_2 to obtain the same value. In this research, α is 0.10, and power testing is $(1 - \beta) = 0.90$ for two-way test, as well as estimates of the smallest multiple correlation coefficient $\rho = 0.40$. From the calculations using formulas and restrictions mentioned above, the obtained value of $Z_{1-\alpha} - Z_{1-\beta} = \beta = 1.65$; $U_p' = 0.424$; $n_1 = 64$; $U_p''(n_2) = 0.427$; $n_2 = 63$; $U_p''(n_3) = 0.427$; $n_3 = 63$ ($n_2 = n_3$) so that the minimum sample size of 64 respondents, with a population of as many as 220 (scattered populations in West Java, Banten, Jakarta and Yogyakarta). Data are then collected by distributing questionnaire to sixty five of the owners of managers of green food product manufacturers in West Java, Jakarta, Banten and Yogyakarta.

In terms of the horizon of time, this study uses a cross-sectional study, meaning that the information from most of the population (sample respondents) were collected immediately at the scene empirically, in order to know the opinion of the majority population of the object being studied, and data were collected only once, with the possibility of a period of more than 1 week, 1 month or 3 months to answer the research questions (Sekaran, 2003:135).

The information collected is used to explore the relationship between market based strategy, customer value, customer satisfaction and customer loyalty using statistical hypothesis testing. Data analysis method used in this paper is path analysis. The first step of this analysis is translation of research hypothesis into path diagram. This diagram could show the strength of the relationship between dependent and independent variables.

Descriptive analysis. Market-based variable captures perception of managers or owners on seven dimension and eighteen measurement item detailed in Table 1 including their score. The calculation of the frequency of every item of the questionnaire shows that respondents perceive that the quality of raw materials are important (70.8%), green food product contain minimal secondary substances (93.8%), product processing technology is relatively low (46.2%), production of ecological products are relatively low (36.9%), the product relatively hard to find in the market (49.2%), the location relatively strategic (52.3%), demand on health function of the product is relatively high (52.3%), also demand on security senses (33.8%) and personal satisfaction (50.8%). The respondents also believe that customers trust the product (36.9%), have positive feeling toward product (60%), likely to buy the product (78.5%), feel the difference between green and non-green food product (40%). Moreover, they have a notion that green food products in the market are relatively similar(50.6%), service delivered by the company are relatively good (87.7%), and product quality is also relatively good (47.7%).

Measurement item for customer value consist of thirteen dimension and twenty-seven measurement

item (Table 2). Frequency calculation on respondents' answer shows that the product gives high level of benefit on health (56.9%) and environment (70.8%), higher benefit due to higher product quality (43.1%), psychological state benefit (49.2%), feeling for security (38.5%), motivates consumers to be aligned with the product (41.5%). Respondents also perceive that green food products are reachable (40%). Nevertheless, product price becomes the barriers for purchasing the products (80%) and is significantly different from non-green product (70.8%). They also perceive that product benefit is not comparable to price (50.8%), but comparable to the risk of not consume the product (46.2%), and price is comparable to usage (36.9%). They also have a notion that green products are more expensive (46.2%), product quality is assured (61.5%) but the quality is less consistent than competitors (70.8%). Moreover, manufacturing processes used are sophisticated (58.5%), brand is already established (66.2%), certain brand is dominant (58.5%), product is available in the market (60%), service prestige level is relatively low (53.8%), publication is low (76.9%), investment is consistent (76.9%), brand is not protected (86.2%), brand awareness is relatively high (64.6%). Four dimensions and fifteen items measure customer satisfaction from managers' point of view. Respondents perceive that the staffs are tidy (61.5%), respond to customer complaint quickly (70.8%), friendly (70.8%), care for customers (58.5%). They also perceive that customers demand the green food product to be useful for health (83.2%), durable (67.7%), showing the characteristic of green (43.1%), informing material used (60%). They have a notion that green food products are easy to produce (46.2%), influence the environment (55.4%), less contribute to environment quality improvement (38.5%), contribute to environment (35.4%), users play roles (38.5%), users contribute through consumption (36.9%), number of users determine their contribution to environment condition (43.1%).

Customer loyalty is measured using five dimensions and twelve items. Descriptive analysis shows that respondents perceive product sold meet customer expectation (50.8%), as well as price (61.5%), and benefit (76.9%). They also perceive that product image is needed (76.9%), as well as image of supplier (46.2%), customers are satisfied (70.8%), information attainment is achieved personally (49.2%) as well as commercially (49.2%), and toward media (49.2%). They also evaluate product attributes (67.7%), but customers' attitude toward green food product is low (67.7%).

Test of validity. Testing the validity of each item used item analysis, which correlate the scores of each item with the total score is the sum of each score point (Sugiyono, 2009:126). Minimum requirements to be eligible is if $r = 0.30$. If the correlation between a measurement item and a total score is less than 0.30 then the item in the instrument shall be declared invalid. Researcher is using *Pearson Product Moment Correlation Coefficient* formula.

$$r_{xy} = \frac{n \sum x_1 y_1 - (\sum x_1)(\sum y_1)}{\sqrt{\{n \sum x_1^2 - (\sum x_1)^2\} \{n \sum y_1^2 - (\sum y_1)^2\}}}$$

Score item is seen as the value of x and the total score is seen as the value of y. The result of the validity test is used to change or revise research questions.

The validity test shows that all of the measurement items are valid; with the lowest correlation coefficient is 0.407. Therefore, all of the measurement items can be proceeded into further statistical

analysis.

Test of reliability. Reliability test is a measure of the consistency of the research instrument. An instrument is said to be reliable if the gauge showed consistent results, so that this instrument can be used safely because it can work well at different conditions (Sugiyono, 2009:129). Cronbach reliability test used the formula 'Alpha as follows:

$$\alpha = \frac{k \left(\frac{Cov}{Var} \right)}{1 + (k - 1) \left(\frac{Cov}{Var} \right)}$$

$$\alpha = \frac{kr}{1 + (k - 1)(r)}$$

Which :

α = the realibility

r = average correlation among variables

k = variable number, Size $\alpha \geq 0,5$ with the tools SPSS program.

The result shows that the Cronbach Alpha is 0.925, meaning that the instrument is reliable.

Test of normality. Normality test is used to determine whether the data follow a normal distribution or not. To determine whether the data follows a normal distribution, it can be tested using various methods, including the method of Smirnov Kolmogrov (Sugiyono ,2009: 76). The normality test for the instrument shows that all of the research variables is following normal distribution because p -value < 0.05 .

Hypothesis Testing

Research questionnaire is designed using Likert scale, so that data collected in this study is in an ordinal scale. On the other hand, data analyzed in inferential statistics (using regression analysis) for testing the hypothesis is interval. Therefore, at first, data from questionnaire is converted into interval scale using successive interval method.

Next step is conducting hypothesis testing, they are:

Hypothesis 1

$H_0: \rho_{y_1 x_i} = 0$: there is no significant effect partially or simultaneously from Market Based to Customer Value.

$H_i: \rho_{y_1 x_i} \neq 0$: There is a significant effect partially or simultaneously from Market Based to Customer Value.

Hypothesis 2

$H_0 : \rho_{y_2 x_i} = 0$: there is no significant effect partially or simultaneously from Market Based to Customer Satisfaction.

$H_i : \rho_{y_2 x_i} \neq 0$: there is a significant effect partially or simultaneously from Market Based to Customer Satisfaction.

Hypothesis 3

$H_0 : \rho_{zy_i} = 0$: there is no significant effect partially or simultaneously from Customer Value and Customer Satisfaction to Customer Loyalty.

$H_i : \rho_{zy_i} \neq 0$: there is a significant effect partially or simultaneously from Customer Value and Customer Satisfaction to Customer Loyalty.

The probability value $< 5\%$ means $H_0 \rightarrow$ rejected and $H_i \rightarrow$ accepted, so that path coefficient is significant

The probability value $> 5\%$ means $H_0 \rightarrow$ accepted and $H_i \rightarrow$ rejected

To test the influence of the independent variable on the dependent variable, regression analysis is used using SPSS. Statistical testing to the relationship between market-based (MB) and customer value (CV) (hypothesis 1) shows that their coefficient correlation is 0.7, meaning that the relationship between the two variables is relatively strong and significant ($\alpha=10\%$). Furthermore, F-test shows that F_{model} is 142.283 and significant, so regression model could be used to predict customer value. Then, t-test is calculated to evaluate the regression equation. The result shows that coefficient of both constant and market-based are significant ($t=4.519$ and $t=11.928$ respectively; with probability 0.00 both). Therefore, it can be concluded that market-based influences customer value significantly. The mathematical expression is:

$$CV = 1.277 MB + 24.962$$

In the same vein, statistical analysis to the relationship between market-based (MB) and customer satisfaction (CS) shows that coefficient correlation is 0.475 (significant at 0.01); and F_{model} is 43.218 (at 0.00). Evaluation of regression equation shows that both constant and market-based are significant ($t=2.902$ and $t=6.574$ with probability is 0.004 and 0.00 respectively). Hence, it is assumed that market-based influence customer satisfaction significantly (hypothesis 2 is accepted) and the mathematical expression is:

$$CS = 0.636 MB + 15.085$$

The relationship between customer satisfaction and customer loyalty as well as customer value and customer loyalty is tested using multiple regression method. Coefficient correlation between customer value and customer loyalty is 0.892, between customer satisfaction and customer loyalty is 0.834 (both are significant at 10%). F-test analysis shows F_{model} is 790.927 (at 0.00), thus regression model could be used to predict customer loyalty. Further analysis shows that coefficient regression of constant, customer value and customer satisfaction are significant (probability 0.00) with t_{value} are 21.686, 19.454, and 14.385 respectively. The mathematical equation for the relationship between customer value (CV), customer satisfaction (CS), and customer loyalty (CL) is:

$$CL = 0.991 CV + 0.96 CS - 77.9$$

III. RESULTS

Based on descriptive analysis of each market-based variable, it can be concluded that the quality of green food products are relatively high because the quality of raw materials and other substances are controlled. These lead to high degree of trustworthiness from the consumers to the products. Several weaknesses of green food products are product distribution and uniqueness. In general, green food products are not durables and become the barrier for distribution in terms of time and distance. Furthermore, it is hard to identify the difference among the same type of green food products except their brands.

Manufacturers also believe that product benefits have been delivered to customers, but price still prevent customers in buying the products. Lack of information and publication also alleviate the likelihood of consumers to buy the product. In addition, although the manufacturers believe that efforts to satisfy consumers in general have been good, consumers' attitude toward product are still low. Further investigation should be conducted to identify the root cause of this phenomenon.

As a whole, from the three hypotheses that have been told in the previous section, all of them are acceptable. It means that market-based strategy influence customer value and customer satisfaction, and ultimately customer loyalty. Schroder and Mavondo (2000:2344) state that market orientation combines focus on competitors, customers, and internal organization to achieve customer needs fulfillment and ultimately organizational performance. Nevertheless, from a closer investigation into the correlation between variables, it can be drawn that the relationship between customer satisfaction and customer loyalty (0.475) is weaker than customer value and customer loyalty (0.70). Therefore, customer perception on the benefit and cost of green food products will determine the consumers' attitude toward them.

IV. CONCLUSIONS

Market-based approach on green food products is significantly improve the accuracy of companies' responses to the customers, thereby it can increasing the variability of the customer value and customer satisfaction. Customer value and customer satisfaction have significant influence to customer loyalty of the green food products. Moreover, customer value gives a higher influence to customer loyalty than customer satisfaction.

Several weaknesses of green food products are also revealed. Firstly, the coverage of product distribution is still low. Secondly, it is hard to differentiate certain green food products among the same kind of products. Thirdly, there is lack of information and publication delivered to customers. Fourthly, consumers' attitude toward green food product is still low.

REFERENCES

- [1] Affif Faisal. "Strategi Pemasaran". UNPAD Bandung. 2003
- [2] Hasnelly. Analisis Pendekatan Berbasis Sumber Daya dan Berbasis Pasar terhadap Nilai Pelanggan dan Kepuasan Pelanggan serta Implikasinya terhadap Loyalitas Pelanggan Produk Pangan Hijau. Desertasi. 2010.
- [3] Law no.7 of the Republic of Indonesia no.41 of 2009 on the protection of agricultural land sustainable food. Publisher CV Novindo Pustaka Mandiri, Jakarta,2010.

- [4] Kotler and Armstrong. "Principles of Marketing", 10th. Pearson-Prentice Hall. New Jersey. 2004..
- [5] Kuusik. Andres. "Affecting Customer Loyalty : Do Different Factors Have Various Influences in Different Loyalty Levels." Faculty of Economics and Business Administration. University of Tartu.
- [6] Saragih, Sebastian Elyas. Pertanian Organik, Solusi Hidup Harmoni dan Berkelanjutan. Penebar Swadaya, Depok. 2008.
- [7] Schroder. Bill & Mavondo. Felix. "Marketing Orientation, Interfirm Relationship and the Resource-based Theory of the Firm: Toward an Integrative Theort." 2000
- [8] Sekaran, Uma. Research Methods for Business, 4th. Ed., John Wiley & Sons, Inc.
- [9] Sitepu, Nirwana, Analisis Jalur (Path Analysis), FMIPA, Universitas Padjadjaran, Bandung, 1994.
- [10] SNI, [01-6729-2002. Organic Agriculture.. 2002.
- [11] Sugiyono. Metode Penelitian Kuantitatif, Kualitatif dan R&D, Alfabeta, Bandung, 2009.