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Ming Xu

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The development of green product industry model in the perspective of Enterprise performance management in Indonesia

Hasnelly¹, Hasrini Sari², Eddy Jusup Sp³

¹Food of Technology, Pasundan University, Bandung, Indonesia.

²Industrial Engineering, Institute Technology Bandung, Indonesia.

³Industrial Engineering, Pasundan University, Bandung, Indonesia.

hasnelly.sriyono@gmail.com

Abstract

The growing concern of society about the environment nowadays have increase, from local buyer, producer, community, the government and also the world society. Lot of enterprises recommended the concept of green or environment innovation.

This research is conducted to develop model that can formulate the tangible and intangible factors that can be applied in green product industry and also as a reminder to the society about the importance of food product that free from hazardous materials and its negative effect to health. The advantage of green product is not also for the consumer itself but also for public environment, that is why the demand of green products keep increasing. This research produce high quality of green product industry model with the approach of resource based that can give satisfaction to the customer and also increase performance and sustainability of agriculture industry through competitive advantage. The important parameter in value innovation process of green product that can increase the product competitiveness over other product like nutrient content or minimization of loss during processing, color, visibility, texture, and flavor are retained.

Qualitative approach was used in exploration study and also completed by literature study to develop research model. This research was done by two stages which are qualitative and quantitative with purpose to minimize the bias that contained in resource. Research method used descriptive and verification method with structural equation modelling. The hypothesis was formulated from research model. This research is expected to be applied in green product industry and can contribute to the development of green product industry in Indonesia. The issues in green product industry in Indonesia can be formulated by these five questions below: how to encouraging growth of green product, how does the availability of resources, how to improve the resources, how to empower resource, how is the product processing innovation and managerial of green product. These five questions can be answered simultaneously with proper technology processing innovation and resource managerial with the basis of local potential in Indonesia.

Key words: green food product, innovation model, intangible resources, tangible resources.

1. INTRODUCTION

The Green food product is a product that is free of pesticides or products with minimal use of chemical compounds, a product that is clean, healthy, organic and environmentally friendly. The trend of green or organic food products will grow in the long term due to the more

limited availability of land and the increase of food production demand both quantity and quality. Price of green food product in the market is higher than conventional food, but because of green food product is targeted for middle to high consumer that have relatively high purchasing power makes the high price is not an issue. High marketability of green food product is caused by the high quality of the product itself, cleaner, healthier, and more tasteful than conventional products[9]. In the 21st century, consumer is the owner of product control of the company. Every region has their own consumer characteristics which make preliminary survey is necessary [10]. There are three factors that need to consider relating to the changing of marketing strategy: products lifecycle, competitive positioning in the market and economic situation [12].

High valued product is supported by cost effectively and efficiently, cost incurred have to be right on target so that will create value that can be enjoyed by customers and the company have to eliminate activities that do not add value to the product [12]. [13] stated that resource based is the present trend. The resource based theory contains elements of the structure and cost of factors that involved the industry. Many researchers believe that resource based theory is lack of empirical evidence, therefore need further exploration of this topic.

Resource based research on green food product is recent studies on cluster to achieve competitive advantage. This research focuses on the effect of resource based innovativeness in green food products industry to consumer satisfaction in the attempt to gain competitive advantage.

Theoretical Framework

According to [12] in [8] resource based approach to competitive advantage is based on unique asset and company capability so the most important factors for choosing the best strategy is focus to the development of unique resource and capability. Barney stated that resource based theory can be develop due to the dynamic capabilities. Research to 164 organizations resulted that competitive advantage can be achieved through process and specialized tools that comes from external and internal knowledge where it serve as protector to imitation and also support for uniqueness criteria [13]

[6] stated that critical and core resource in green food product gave a positive effect on value. There are two factors that can effect the successes of green food product industry which is environment policy and internal factors such as financier and corporate strategy.

TABLE 1.
RESEARCH VARIABLE

Construct	Definition	Dimension	Operationalisation	Scale
Resource based (Ort Stuart (2007))	Explain about growth strategy and competitiveness based on resource and capability	Resource	Development and use of resource and internal capability	1-6
Intangible resource	Define about employee, product, capacity and consumer that can increase the competitiveness	Employee Product Capital Capacity Consumer	The development and use of internal capability and resource	1-6
Very Intangible resource	Define about employee moral, reputation in the eye of costumer and investor that can increase competitiveness	Employee moral Reputation in the eye of consumer Reputation in the eye of investor	The development and use of resource and internal capacity associated with employee moral, reputation in the eye of consumer and investor	1-6
Consumer value (Bradley; 2003)	Define about product quality, service quality, price, image, employee value that can increase bene fit	Product quality Service quality Image Price Employee value	The development and use of internal capability and resource that can increase consumer value	1-6

Picture 1. Research Model

III. RESULTS

Based on conceptual hypothesis with suggested research paradigm then can be described the connection between variables. Research variable are resource based dimension that consist of tangible resource, intangible resource and very intangible resource. Other variable are customer value, satisfaction and customer loyalty.

Model Fit Test

In this research there are three construct, marketing strategy variable as exsogen variable and costumer loyalty as endogen variable. Data evaluation is based on structural model, this evaluation conducted to find out is the data fit with model research. In structural model parameter estimate is expected have minimum variance and unbiased.

Resource based instrument will affect the customer value and satisfaction [6; 14]. Internal factor in organization is very important for customer value and satisfaction [11 ; 10]. The ability of supplier to communicate green product can affect green customer. The customer value is affected by product and service and it also affect consumer satisfaction. Quality of product is an indicator of the benefit of the product [17].

Customer satisfaction can be measured by customer need, information need and information message [16; 13].

II. METHODOLOGY

This research is about resource based and the instrument focuses on employee, product, capacity and customer. The research is conducted two steps, qualitative research and quantitative research. The goal is to minimize the bias of collected data. Qualitative stage is done to have more understanding about existed problem on green food product industry in the view of manager and customer. Previous research and expert opinion are used to enrich explorative study. Interview is used to collect the data to find out the factors that can affect consumer value.

In quantitative research stage, previous research, exploration study result and expert opinion used to build research model. Research hypothesis define from the model and it being tested in the survey to employee and consumer of green food product.

The survey method that is use in this research is explanatory survey because this method can help understand more about the variable. The connection type between variable is causalitas. This research is cross sectional, that reflect a description of situation or phenomena that happen in 2015.

Research methodology use descriptive and verificative and the data is analyze with structural equation modelling (SEM).

This research was done in Indonesia, the target is green food product industry in West Java, DKI Jakarta, Bali, Malang, Yogyakarta, and West Sumatera.

The research population is owner and manager of green food product, the sampling method use proposional cluster random sampling. The amount of sample are 200 people.

TABLE 2.
GOODNESS OF FIT RESULT

Fit index	Value	Cut off value	
Chi-Kuadrat	107.06	Expected small fit	H ₀ denied, model good
P-value	0.000	< 0.05	H ₀ denied, model good fit
RMSEA	0.000	< 0.08	H ₀ denied, model good fit
χ^2/df	98.37	> 2.00	H ₀ denied, model good fit
GFI	0.900	0.80 – 0.90	H ₀ denied, model good fit
AGFI	0.800	0.70 – 0.80	H ₀ denied, model good fit
NFI	0.880	0.80 – 0.90	H ₀ denied, model good fit
CFI	1.000	> 0.90	H ₀ denied, model good fit

Source: Data analysis result, 2015

IV. DISCUSSION

Based on model fit test result in table 2, can be concluded:

1. Discrepancy value of model is 107.06 (P-value=0.000)
2. RMSEA value of the model is 0.000, this model is a good fit because RMSEA is below cut off value
3. χ^2/df (Discrepancy/df) value of the model is 98.37
4. Goodness of fit index (GFI) value is 0.900, concluded that the model is good fit
5. Adjusted Goodness of fit index (AGFI) value of the model is 0.800, this value indicates that the model is good fit because the value is in the range of 0.7-0.8
6. Normed fit Index value is 0.88, this result indicate that the model is good fit
7. Comparative fit index (CFI) value is 1.000, this result showed that the model is a good fit because the CFI value is higher than cut-off value.

Nine fit index has shows that this research model is fit to the data, and so the model will be used to answer the hypothesis in this research.

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