Green behavior in organic products: policies approach

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Abstract. Nowadays, consumption patterns based on green products are pretty popular and have become a choice for various social strata. The study of the factors that influence consumer decisions, including how satisfaction is creating, has been widely discussed in empirical research. There are two approaches to observing this phenomenon: the Servqual theory approach and the marketing mix approach. This study empirically examines how the marketing mix elements can contribute to customer satisfaction and loyalty in green products, especially organic vegetables, in the Yogyakarta region. We want to see from this phenomenon the most substantial element that contributes to customer satisfaction. The data collecting with a questionnaire that distributing with snowball sampling with 80 respondents selected; however, only 65 questionnaires can be processing due to missing and outlier data. With Moderated Regression Analysis, this study found that satisfaction is the quasi moderator in the relationship between marketing mix variables and customer loyalty and conclude that marketing mix elements cannot affect customer loyalty directly but must moderating by satisfaction. Post hoc analysis with policy review also enriched this result of the study and found the dearth of policies supporting the trading mechanism in organic products. This study recommends that the government prepare policies about certification scheme and organics trading mechanism favours farmers.

1. Introduction

Nowadays, organic product choices have become common in many groups of the community. This trend appears since the level of awareness about environmental behaviour increase gradually. Even though they have to pay the premium price, they voluntary switch their buying behaviour to organic product [1]. But in the Indonesian context, organic product still not yet become a market leader. Based on prior Indonesian research, find that most organic consumer is staying in the downtown area [2]. That condition makes a challenge and opportunity simultaneously, especially for an organic farmer and organic food industries. In several years, most marketing studies in organic food are trying to capture the phenomenon and find that scholars use marketing mix with 4P (product, price, promotion, place) and extended perspectives to develop their studies [3]. They also believe that using the marketing mix concept as an integrated variable could gain customer satisfaction [4].

Organic buying behaviour usually starts with individual motivation to consume healthy food [5], and at the same time get the higher quality and taste [6] and feel safer [7]. Besides, the consumer's knowledge and social context also influence their decision making in consuming organic products. Organics product's supplier must deliver precious value to encourage the market share with satisfaction as the proper way to make the organic customer constantly repeated their consumption and become a loyal customer. The value-added of this study comes from the significant role of the marketing mix (product, price, place, and promotion) in achieving customer loyalty to organic products.
In order to discuss the study result, Servqual worn to enrich the satisfaction context to examine between expectations and perceptions of consumers based on the marketing mix elements. The Servqual developed by Parasuraman [8] and often use to assess consumer perception of quality in service and retailing organization. In this study, the Servqual context reminds us that satisfaction not only sources from tangible attributes but also intangible/subjective attributes [9].

This study tries to find the phenomenon and capturing the antecedent of customer loyalty in consuming organic products, especially vegetables. Using marketing mix perspectives to assess consumer value and benefits, cost of products, communication and information, and distribution channel, this study aims to determine what factor has customers’ attention to make the buying decision and be loyal, especially in organic vegetables.

2. Materials and methods

2.1. Materials

The subjects in this study were vegetables organic product’s customer in Yogyakarta as the research population. Our study involves some respondents who use and buy organic vegetables, primarily produced by Tani Organic Merapi. Therefore, we distribute our questionnaire as our research instruments with the snowballs method to address Tani Organic Merapi’s customer. The final version of the questionnaire contained 21 items measured using five-point Likert-type scales ranging from strongly disagree (1) to strongly agree (5) and developed from several sources from prior studies [4,10,11]. From 80 respondents, we only process 65 data respondents because of several incomplete and outlier data.

2.2. Methods

2.2.1. Hypotheses development. The marketing mix considered to be one of the most critical aspects of the marketing process. It plays a significant role in creating value and satisfaction for the customers. In addition, 4P’s is frequently using by an organization to gain feedback in a personal buying experience [12]. The feedback helps the organization improve the quality of each element in the marketing mix.

Product as one of marketing mix element refers to the goods and services presents for the customer [11]. Mention to green issues; the product must have another dimension besides quality. The providers have to pay attention to performing environmentally friendly values smartly and convince the customer to perform buying behaviour. Some customers are concerned about green issues, usually on resources conservation, products standardization and certification mechanism, energy efficiency, environmentally conscious packaging, not from polluting materials, and many more that assess in the tangible and intangibles area [9]. All of the perceived quality hoping by the customer will contribute to the satisfaction level in consuming products. So, product perceived quality is essential to follow up by the organics products provider to achieve customer satisfaction.

Customers will be satisfied if the products provider performance exceeded the expectations or serve more value than the competitors. Customer loyalties will happen if the organization continuously assigns value, what is expected by the customer [13]. In green behaviour, perceived quality must perform the expectation of the green issue by the customer. Satisfaction reaches when the expectation meets performance. If the customer is willing to maintain a relationship with the product provider and continue purchasing and using the products and recommends to others, loyalty has begun.

Prior research found that service quality and customer satisfaction positively affect loyalty [14]. Therefore, one way to develop and manage customer loyalty is by providing added value in products and services [15]. So, in this study, we proposed the hypothesis:

H1a: Product positively affects customer loyalty.

H1b: Product positively affects customer loyalty moderated by satisfaction.

The second element is price, a value charged for any product or service which have a critical decision that affects the market (as sales rating) and in the organization (as profitability) [4,16]. Price fairness is the most considering by the customer to gain value and buying intention [17]. The characteristics also appear in green product customer that need a reasonable price to reach greater satisfaction [18]. As a
monetary cost of the product, price believes as one factor that affects satisfaction [19]. Green customer also pays attention at a price beside the environmental issue to make the buying decision [20]. A satisfied customer will repeat their purchase and recommends it to others. Based on prior research, decide price exactly affect satisfaction and loyalty in green products [21], so we proposed the hypothesis as follow:

H2a: Price positively affects customer loyalty.
H2b: Price positively affects customer loyalty moderated by satisfaction.

Products presenting in the markets is one important thing to get immediate attention from the marketing division. Making them close and most accessible by the customer is the critical elements for the organization to maintain its profit source. Place in the marketing mix refers to that condition. Place in green customer's perspectives must have a satisfactory channel to span the customer place and ensure the environmentally safe and contamination elements potentially harmful [22]. The appropriate distribution channel is needed to avoid burdening the customers [23]. Customer who feels easiest to find the organics products will be satisfied, and that condition can positively affect loyalty, so we proposed hypothesis:

H3a: Place positively affects customer loyalty.
H3b: Place positively affects customer loyalty moderated by satisfaction.

Promotion is the spearhead for an organization to making money. The best promotion media is a tool that can encourage the prospective customer to purchase the goods or services provided by the organization. The promotion also the strategic way to salesforce if they appear in a genius manner. One of the essential things in promotion is matching customer expectations of service or products and accurate performance because satisfaction is a function of confirmation [24]. Furthermore, prior research finds that customer loyalty came from perceived value, customer satisfaction, trust and habit [25]. Therefore, satisfaction in the promotion born from a value confirmation source from a product provider can affect customer loyalty. Based on that facts, this study proposes the hypothesis:

H4a: Promotion positively affects customer loyalty.
H4b: Promotion positively affects customer loyalty moderated by satisfaction.

2.2.2 Data processing. Data processing utilize the statistical package for social scientists (SPSS) software V26.0 to analyze the quantitative data. In this research, hypothesis testing uses multiple linear regression analysis with an interactive test (Moderating Regression Analysis).

3. Results and discussion

3.1. Descriptive statistics
Demographic respondents characteristic in this study classified by gender (male 14%, female 86%), by age, which most respondents in the range 21-30 years old (42%), by occupation, consist of housewife, entrepreneur, government services, teacher and educational staff, health worker and other, with the most proportion in teacher and educational staffs, and the last classification in education, break into three range, senior high, undergraduate, and postgraduates. Most respondents have an educational background in undergraduate (58%).

3.2. Reliability test
The validity test uses the Pearson product moment method, while reliability uses the Cronbach's Alpha technique. It is said to be reliable if the Cronbach alpha value is greater (> ) than 0.60. Based on data in this research, we testing reliability in each variable and the result shows the Cronbach alpha coefficient in product is 0.832, price is 0.645, promotion is 0.687, place is 0.624, satisfaction is 0.875 and the last, loyalty is 0.917.
3.3. Statistical t-test

To analyze the hypotheses, this study uses t-test to examine the influence of independent variables to dependent or moderating effect between those. The t-test result is listed below in Table 1.

| Model       | Unstandardized Coefficients | Standardized Coefficients | t  | Sig. |
|-------------|-----------------------------|---------------------------|----|------|
| (Constant)  | -0.110                      | 1.958                     | -0.056 | 0.955 |
| Product     | 0.009                       | 0.137                     | 0.068 | 0.946 |
| Price       | 0.368                       | 0.211                     | 0.209 | 0.086 |
| Place       | 0.126                       | 0.286                     | 0.042 | 0.662 |
| Promotion   | -0.097                      | 0.212                     | -0.047 | 0.647 |
| Satisfaction| 0.888                       | 0.153                     | 0.684 | 0.000 |

Dependent variable: customer loyalty

As shown in Table 1, the influence between product, price, place and promotion are not statistically significant, so, hypothesis about marketing mix’s factor influence directly to customer loyalty was not supported in this study (H1a, H2a, H3a, and H4a not supported). Only customer satisfaction influences customer’s loyalty directly. This result is interesting because none of one variable in the marketing mix can directly influence loyalty. The finding strengthens the prior research that found that all elements in the marketing mix cannot directly influence loyalty without satisfaction [26,27]. Contrary, another research finding found that the four marketing mix elements can influence customer loyalty directly [28,29].

The second phase examines customer satisfaction as moderating variable between the marketing mix’s variable and customer loyalty. Table 2, which addressed the effect of the product on customer loyalty moderated by satisfaction, indicated a significant positive interaction of product and satisfaction on customer loyalty with p = 0.022, confirming the proposed model presented in Figure 2. Furthermore, the positive p result in Table 2 (model 1 in satisfaction, p = 0.000 and model 2 in product*satisfaction, p = 0.022) emphasizes satisfaction as a quasi-moderator in this model, which means satisfaction has two roles as a moderator variable and at once as an independent variable. This result confirmed the result in Table 1, in which the p-value in satisfaction is 0.000.

Table 2. Interaction effect in product and satisfaction to customer loyalty.
Table 3. Interaction effect in price and satisfaction to customer loyalty.

| Model | Unstandardized Coefficients | Standardized Coefficients | t     | Sig. |
|-------|-----------------------------|---------------------------|-------|------|
|       | B                           | Std.Error                 | Beta  |      |
| 1     | (Constant)                  | 0.443                     | 1.531 | 0.289| 0.773|
|       | Price                       | 0.365                     | 0.169 | 0.207| 2.167| 0.034|
|       | Satisfaction                | 0.890                     | 0.124 | 0.686| 7.169| 0.000|
| 2     | (Constant)                  | 18.987                    | 7.277 | 2.609| 0.011|
|       | Price                       | -1.323                    | 0.669 | -0.751| -1.978| 0.052|
|       | Satisfaction                | -0.243                    | 0.452 | -0.188| -0.539| 0.592|
|       | Price*satisfaction           | 0.102                     | 0.039 | 1.701| 2.602| 0.012|

Dependent variable: customer loyalty

Table 3, describing the interaction effect in price and satisfaction to customer loyalty, also indicated a significant positive interaction of price and satisfaction on customer loyalty with p = 0.012, confirming the hypothesis H2b. Furthermore, the positive p result in Table 3 (model 1 in satisfaction, p = 0.000 and model 2 in product*satisfaction, p = 0.012) emphasizes satisfaction as a quasi-mediator in this model, which means satisfaction has two roles as a moderator variable and at once as an independent variable. This result confirmed the result in Table 1, in which the p-value in satisfaction is 0.000.

Table 4 and 5, describing the interaction effect in place, promotion and satisfaction to customer loyalty, also indicated a significant positive interaction of place, promotion and satisfaction on customer loyalty, accepting H3b and H4b. The positive p result in Table 4 and 5 (in model 1 and model 2) also places satisfaction as a quasi-mediator in this model.

Table 4. Interaction effect in place and satisfaction to customer loyalty.
Prior research confirms that product, promotion, place, and price positively affected customer loyalty through customer satisfaction [26,30]. In this research, we find that satisfaction is a quasi-moderator between all marketing mix elements through customer loyalty. So, the result aligns with that prior research finding.

4. Conclusions
Although the study has a limitation of the generalisability because of a small sample, this research finding contributes to robust the result in prior research that satisfaction in consuming organic products affects consumer loyalty directly. Although the organic buying behaviour is increasing rapidly, variable in the marketing mix cannot influence customer loyalty directly without moderating by customer satisfaction. Managerial and policy implication that can conclude for an organic supplier is to increase the acceptance level of each variable in the marketing mix to gain satisfaction first—in the next step, creating an engagement strategy to make the consumer loyal to organic products.

In order to mainstream organic product consumption rapidly, the government must develop policy to support organic trading and consider the principle determined in ministerial regulation such as protection and justice, health and ecology. Justice principle means that all stakeholders must contribute to form the humanistic relationship in the organic trading system. The protection principle means that all organic activities have to consider sustainability practices in a whole process. Furthermore, the policy that will develop must ensure that all principles above are regulated in organic product certification schemes and preserved in the organic trading ecosystem.

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