



The Effects of Consumer Involvement, Price Sensitivity, and Sensory Appeal of Organic Food Purchase Intention During the COVID-19 Pandemic

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Abstract. Organic food is grown and produced organically without any use of chemicals such as pesticides, fertilizers, or any other modified organism. Due to the COVID-19, there was a significant change in consumer behaviour including organic food consumption that automatically increased the sales. This study aims to identify the effects of consumer involvement, price sensitivity, and sensory appeal of organic food purchase intention during the COVID-19 pandemic. Structural equation modeling with Partial Least Square (PLS) was used to analyze the research models proposed in the study. This study used explanatory research to test the model with 240 respondents surveyed with criteria of the respondents that have purchased organic food during the pandemic. The result show consumer involvement and sensory appeal have a significant positive effect on consumer intention to purchase organic food. While lifestyle, an additional variable, does not moderate the relationships for the model used in this study.

Keywords: COVID-19 · Organic Food · Purchase Intention

1 Introduction

The COVID-19 pandemic brought various changes in consumer behavior, including organic food consumerism. Unlike any other industry, organic food consumption shows a significant increase in sales [1]. Organic food is natural food produced using environmentally safe methods without chemicals, pesticides, or other genetically modified organisms [2]. Methods used in organic food production often called organic farming, rely on ecological processes condition, resulting in healthy side effects for the consumer rather than nonorganic ones [3]. Initially, the purchasing of organic food was carried out of awareness and desire to have a healthy lifestyle as well as a way to minimize the use of chemicals in food [4]. Due to the pandemic, society began to consume organic food as a way to protect itself free from the virus.

In 2020, the number of organic food consumers in the US market led by 38% of the overall consumer purchase of organic industries [5]. In the local market, based on a survey done by Femina Magazine out of 300 respondents, 62% of them choose organic

food to maintain their immunities during the pandemic life. Consequently, it resulted in a 9,8% increase in organic food sales in 2021. Some studies have been carried out to study the purchase intention of organic food. From a marketing perspective, research related to organic food purchase intention was conducted to determine the effect of health awareness and dietary patterns [6], consumer awareness and interest in food quality [7], as well as consumer involvement in the environment [8].

Consumer involvement is defined by Yang [9] as a perception of the correlation of participation that occurs based on internal needs, values, and interests. While Mittal defined consumer involvement described as the degree of interest and attention of a person to a certain object. Consumer involvement's main indicators are personal factors (e.g., use of social media), situational factors, and contextual factors such as brand awareness [10]. Consumer involvement is also considered to be the result of social interaction and strong antecedents of individual involvement in a community [11]. In the context of food and dietary consumption, consumer involvement requires in-depth research due to several aspects such as appearance, dosage, and key functions of the product [12]. According to Rahman [13], consumers are willing to involve in a product when it has significant substantial value or fundamental importance in life such as having an ideal body and preserving the environment. If the values are well received, the buying decision process will be affected increasing potential purchase intention. Besides consumer involvement, price sensitivity is considered to affect organic food purchase intention [14]. In organic food consumption, price is a determinant in the buying process because the price of organic food is relatively expensive compared to conventional food [15]. In this context, price sensitivity can be viewed as an impact on weight and/or price associated with the consumer's assessment of a product or service [16]. Therefore, price sensitivity is the price associated with changes in consumer demand caused by unstable activities of product prices [17]. According to all the literature above, the following hypothesis is developed.

H1: Consumer involvement is a determinant of organic food purchase intention.

H2: Price Sensitivity is a determinant of the organic food purchase intention.

The sensory appeal is usually an impression that accompanies the consumer's optimal emotional state to elicit changes in purchasing behavior [18]. Sensory appeal features such as taste, appearance, freshness, texture, color, and odor are important motivational factors that generate consumer interest in purchasing and consuming existing foods. The sensory appeal is also described as the sensation of response to sensory receptors, which consists of actions performed by the five human senses of sight, sound, smell, taste, and texture [19]. According to Rahman [13] consumers are willing to involve in a product when it has significant substantial value or fundamental importance in their life such as having an ideal body and preserving the environment. If the values are well received, the buying decision process will be affected increasing potential purchase intention.

H3: Sensory appeal is a determinant of organic food purchase intention.

Lifestyle is recognized as a distinctive pattern of characteristics, and personal and social behavior of an individual or group [20]. Lifestyle can be defined as a pattern of life that describes a person's interaction with the surrounding environment [21]. The

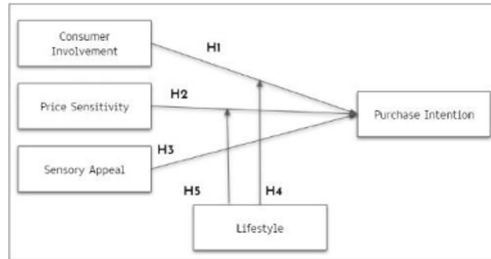


Fig. 1. Conceptual Model

consumer's lifestyle has an influence on the environment, attitudes towards the environment, and on consumption patterns [22]. Consumers who are aware of environmental sustainability and want to be involved in preserving it, tend to have a healthier lifestyle than those who are not. A study conducted by Singh and Verma [23] found that prominent prices have a positive influence on their buying interest. According to the literature above, the following hypothesis is developed.

H4: Lifestyle moderates between consumer involvement and organic food purchase intention.

H5: Lifestyle moderates between price sensitivity and organic food purchase intention.

Conceptual model show by Fig. 1.

Related types of research including new variables affecting the purchase intention of organic food have been carried out through the years. However, there are not many studies that discuss in detail the influence of these variables during the COVID-19 pandemic, especially in Indonesia. Therefore, this study differs from the previous research to discuss the influence of consumer involvement, price sensitivity, and sensory appeal (appearance, smell, taste) on consumer purchase intention during the pandemic life. In addition, this study was also conducted to examine the role of lifestyle as the moderator variable.

2 Methods

To test the model, this research used quantitative method and an explanatory study. The population in this study were Indonesians who has purchased organic food in the form of vegetables during the COVID-19 pandemic. The sample used in this study was determined by using a sampling method, a non-probability sample with a purposive sampling technique. For this reason, all individuals in the population have the same opportunity to be sampled in this study. This research used a questionnaire survey on Google Form to conduct the research indicators. A total of 240 respondents serve to check the research hypothesis with a 5-scale Likert.

Data are conducted using the structural equation model (SEM) method. Structural Equation Modeling (SEM) is a multivariate data analysis technique that is used to find relationships between variables and produce equations such as relationships between constructs, latent variables, or variables which the analyst cannot observe [24]. Before conducting the main study, a pretest including a small number of respondents were

involved to test the research indicator. Indicator testing is done by checking the validity and reliability of the item of the variables using SPSS 25 a Smart-PLS 3 to conduct the research hypothesis checking.

3 Result and Discussion

3.1 Hypothesis Checking

Hypothesis testing were done by looking at the relationship between all variables including the moderating effects. The significance of variables was used to measure the relationship. Hypothesis testing was carried out using the PLS-SEM method by bootstrapping. This test was carried out by setting bootstrapping 5000 subsamples, complete bootstrapping, bias-corrected and accelerated (BCa), and a significance level of 0.05. Research result show by Table 1.

Based on Table 1, the relationship between consumer involvement and purchase intention has an original sample value of 0.334, a T Statistics of 4.110 and a P-Value of 0.000. The original sample value indicates that this relationship has a positive direction. The T Statistics value is more than 1.645 and the P-Value is less than 0.05 indicating that this relationship is significant. Therefore, the results of the analysis show that the relationship between consumer involvement and purchase intention has a significant positive relationship. This result is supported by the previous study [14] that found the more consumer feel the need to contribute to a certain good deed, the more likely they will purchase the products. In this case, the consumer wants to involve in preserving the environment during the pandemic life. Furthermore, the relationship between sensory appeal and purchase intention also showed significant results indicating consumers tend to purchase organic food based on the product’s appearance, smell, and even the texture. This result also shows how organic foods served do matter to enhance consumer sense [18].

Moreover, Hypothesis 2 Was Rejected and Supported by the Previous Research [14] that Shows the More Sensitive Consumers to a Price, the Less They Will Purchase the Product so Hypothesis 2 is Rejected. Even Though Consumers Believe Consuming Organic Food Can Maintain Their Immunity if the Difference Between Organic and Non-Organic Foods’ Prices Are High, It is Likely They Will not Be Purchasing Organic

Table 1. Research Result

Path	Original	Mean	STDEV	T-st	p-value
CI → PI	0.334	0.332	0.081	4.110	0.000
PS → PI	0.016	0.023	0.067	0.238	0.812
SA → PI	0.178	0.176	0.085	2.095	0.037
L → PI	0.364	0.370	0.060	6.608	0.000
Mod1	-0.002	-0.006	0.053	0.030	0.976
Mod2	-0.033	-0.029	0.060	0.544	0.587

Ones. Thus, Producers Can Determine the Price of Organic Food that Does not Have a High Difference from Non-Organic. Similar Result also Showed in the Relationship Between Lifestyle and Purchase Intention Indicating that Lifestyle Has a Significant Role to Purchase Intention. However, the Moderating Effect of Lifestyle on Consumer Involvement Has an Original Sample Value of 0.018, a T Statistics of 0.293 and a P-Value of 0.432 Indicating the Relationship is Positively not Significant. Therefore, the Moderating Effect of Lifestyle Does not Moderate the Relationship Between Consumer Involvement and Purchase Intention. The Same Result Was also Shown in Moderating Effect of Lifestyle with Price Sensitivity.

4 Conclusion

Based on the Research and Statistical Test Done Above, Only Hypothesis 1 and Hypothesis 3 Were Accepted Indicating Consumer Involvement and Sensor Appeal Played a Positive Role in Organic Food Purchase Intention. Both Farmers and Food Producers Can Use a Campaign to Attract Consumers Who Want to Be Educated More About the Farming Process of Organic Foods by Using Social Media Such as Instagram and Twitter. For Consumers Who Tend to Purchase Organic Food by Smelling, Looking, and Touching the Product, the Producers Can Use See-Through Packaging that Can Give off the Products' Fragrance. Besides that, Two years into the Pandemic, Many Consumers Have Been Vaccinated and Activities Are Gradually Improving to Normal. Thus, Causing Consumers to Begin Returning to Their Original Lifestyle One of Them is to Pay Attention to Price When Purchasing a Product. In Addition, We Believe that This Study Had Limitations in the Sample. A Bigger Sample with More Demographic Consumers is Needed to Gain More Precise Results, Particularly for Price Sensitivity. As Many Consumers Have Awareness Regarding Environmental and Health Issues, Future Research Can Add Them as a Potential Factor that Can Lead to Organic Food Purchase Intention.

References

1. Sheth, J.: Impact of Covid-19 on consumer behavior: Will the old habits return or die? *J. Bus. Res.* 117, 280–283 (2020).
2. Paul, J., Rana, J.: Consumer behavior and purchase intention for organic food. *J. Consum. Mark.* 29, 412–422 (2012).
3. Mutiara, V. I. Arai, S.: The Challenges In Organic Agricultural Products Market In Southeast Asia. *Rev. Agric. Sci.* 5, 36–44 (2017).
4. de Boer, A., Bast, A.: Demanding safe foods – Safety testing under the novel food regulation (2015/2283). *Trends in Food Science and Technology* 72, 125–133 (2018).
5. Spins.: 2020's Top Trends in Natural and Organic. SPINS (2020). Available at: <https://www.spins.com/resources-2020-top-trends-in-natural-and-organic/>.
6. Asioli, D. et al.: Making sense of the 'clean label' trends: A review of consumer food choice behavior and discussion of industry implications. *Food Research International* 99, 58–71 (2017).
7. Maeda-Yamamoto, M.: Development of functional agricultural products and use of a new health claim system in Japan. *Trends in Food Science and Technology* 69, 324–332 (2017).

8. Laureti, T., Benedetti, I.: Exploring pro-environmental food purchasing behaviour: An empirical analysis of Italian consumers. *J. Clean. Prod.* 172, 3367–3378 (2018).
9. Yang, T.: The decision behavior of facebook users. *J. Comput. Inf. Syst.* 52, 50–59 (2012).
10. Mittal, B.: Measuring Purchase-decision involvement. *Psychol. Mark.* 6, 147–162 (1989).
11. Wang, Y., Wang, J., Yao, T., Li, M. & Wang, X.: How does social support promote consumers' engagement in the social commerce community? The mediating effect of consumer involvement. *Inf. Process. Manag.* 57, (2020).
12. Khedkar, S., Carraresi, L., Bröring, S.: Food or pharmaceuticals? Consumers' perception of health-related borderline products. *PharmaNutrition* 5, 133–140 (2017).
13. Rahman, I.: The Interplay of Product Involvement and Sustainable Consumption: An Empirical Analysis of Behavioral Intentions Related to Green Hotels, Organic Wines and Green Cars. *Sustain. Dev.* 26, 399–414 (2018).
14. Ghali-Zinoubi, Z., Toukabri, M.: The antecedents of the consumer purchase intention: Sensitivity to price and involvement in organic product: Moderating role of product regional identity. *Trends in Food Science and Technology* 90, 175–179 (2019).
15. Marian, L., Chrysochou, P., Krystallis, A., Thøgersen, J.: The role of price as a product attribute in the organic food context: An exploration based on actual purchase data. *Food Qual. Prefer.* 37, 52–60 (2014).
16. Erdem, T., Swait, J., Louviere, J.: The impact of brand credibility on consumer price sensitivity. *Int. J. Res. Mark.* 19, 1–19 (2002).
17. Ardhanariswari, A.: Hubungan Antara Customer Satisfaction Dengan Price Sensitivity Pada Insudtri Ritel Di Surabaya. *Calypra J. Ilm. Mhs. Univ. Surabaya* 7, 1–19 (2018).
18. Imtiyaz, H., Soni, P. & Yukongdi, V.: Role of sensory appeal, nutritional quality, safety, and health determinants on convenience food choice in an academic environment. *Foods* 10, (2021).
19. Mothersbaugh, D. L., Hawkins, D. I., Kleiser, S. B., Mothersbaugh, L. L., Watson, C. F.: *Consumer behavior: Building marketing strategy.* (McGraw-Hill Education, 2020).
20. Veal, A. J.: The concept of lifestyle: A review. *Leis. Stud.* 12, 233–252 (1993).
21. Kotler, P., Keller, K. L., Ancarani, F., Costabile, M. *Marketing management* 14 Ed. (Pearson, 2014).
22. Aydın, H., Ünal, S.: A Study on the Effects of the Consumer Lifestyles on Sustainable Consumption. *Inquiry* 1, (2016).
23. Singh, A. & Verma, P.: Factors influencing Indian consumers' actual buying behaviour towards organic food products. *J. Clean. Prod.* 167, 473–483 (2017).
24. Hair, J., Black, W., Babin, B., Anderson, R.: *Multivariate Data Analysis: A Global Perspective.* in *Multivariate Data Analysis: A Global Perspective* 7th, (2010).

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