

Consumers' Perception of the Benefits and Challenges of Organic Food Consumption and Supply

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Abstract— Despite growing concern on the quality and safety of food available in the market, only a small portion of consumers purchase organic food products. Therefore, this study aims to explore the perception of consumers towards the benefits and challenges of organic food consumption. For that purpose, a semi-structured interview was conducted with three organic food consumers in Tanjung Malim, Perak and data were analysed by using thematic analysis. The findings confirmed “healthiness” and “green environment” as the benefits of organic consumption, while “high price” and “the lack of organic food availability” were described as the challenges in organic food consumption. The implication of the study is that campaigns towards organic food consumption should be focusing on the healthier eating and environmental-friendliness of organic food production. Moreover, organic food producers need to focus on reducing the cost of organic food production to reduce price and increase distribution of organic food to penetrate more market segments.

Keywords— Organic food, healthiness, green environment, price, organic food availability

1. Introduction

Consumers have grown concern about the quality, safety and green production of food products due to several safety issues and environmental problem occurred around the world [1], [2]. As a result, more consumers were selective in food purchase to avoid possible pesticide residues that could harm human body to an extent that they even considered how conventional food production could affect the

environment [3], [4]. Therefore, organic food emerged as a healthier and greener alternative which could provide healthiness, quality, and safety demanded by consumers [5], [6]. Moreover, organic food was claimed to increase citizens' life span [7].

Organic foods are known to be food that are made, harvested and grown without the addition of pesticides and chemicals, thus it is beneficial for consumers' wellbeing. This is because the human body is designed to consume natural and whole foods that are free of chemical, antibiotics, pesticides and genetic modification. Antibiotics or hormones should not be fed to living animals that are used as a source of meat, eggs and dairy products [8].

Despite the awareness of the benefits of organic food, many consumers are still purchasing the conventional food products particularly due to the high price of organic food [9], [10]. Price remained a determining factor that influence demand for organic products [10], [11].

For organic food consumers, their purchase decision is likely the results of the credence of organic foods [11], [12]. There are about 200 outlets selling organic products in Malaysia, indicating that the demand for organic food in Malaysia is on the rise among the consumers who could afford paying high price for the organic food to gain the claimed benefits.

2. Related Works

Previous studies had been conducted to determine the factors that influence consumers to purchase organic food. For example, it was found that family influenced consumers' perception of organic food purchase the most [13]. On the other hand, another study revealed that health consciousness, knowledge, subjective norms, and price determined consumers' organic food purchase [14]. A study in Taiwan found that the relationship between health consciousness and ecological motives was mediated by consumers' involvement in organic food purchase intention [15].

Consumers were further motivated to purchase organic food when they became aware of the presence of insecticidal residues in organic food due to excessive use of chemicals during its plantation phase [3], [4]. In an investigation in Taiwan, 457 questionnaires were distributed which resulted in significant involvement of consumers' health consciousness and ecological motives [15]. Meanwhile in India, survey data was collected from 611 Indian consumers and the results showed that health consciousness and price influenced consumers' attitude towards organic food product but purchase intention was further affected by availability of organic food products [14].

In addition, a survey on 1,000 Polish respondents verified that consumers perceived organic food as healthier and more environmental friendly but also more expensive than conventional food products [16]. Another study involving 9,470 household in Germany confirmed that "naturalness and healthiness" and "environmental protection" were strong determinants behind organic food purchases, whereas "price consciousness" and "convenience orientation" negatively affected organic food purchases [17].

However, less is known about Malaysian consumers' perception of the benefits and challenges of organic food consumption although limited evidence seemed to suggest the positive effect of knowledge on healthy food choice [18]. Past research performed in Taiwan [15], India [14], Poland [16], Germany [17] suggested that health consciousness and environmental protection driven organic food product consumption while price, organic food availability, and convenience discouraged it. Nevertheless, a study needs to be

conducted to confirm whether Malaysian consumers have the similar perspectives. As previous studies primarily employed survey method for data collection [15], [14], [17], this research employed another approach to gain more understanding on the subject. The study was conducted through qualitative approach by interviewing consumers of organic food products in Malaysia. The approach was chosen in order to explore in depth Malaysian consumers' perception of the benefits and challenges of organic food consumption.

3. Methodology

This section explains about the sample of this study and the sampling technique used. Furthermore, the researchers describe the procedures for data collection and analysis of the data gathered in this study.

3.2 Sample and Sampling Technique

The selected research participants were the residents of Proton City, Tanjong Malim, Perak who had vast experience as consumers of organic food products. These research participants were selected based on several criteria that indicated their strong commitment to organic food consumption. First, all three participants were active farmers of organic produce for their household consumption at a designated community farm. The 2800m² (approx.) organic community farm contained Brazillian spinach, okra, pineapple, banana, papaya, asparagus, roselle, strawberry, lemon, and many local vegetables and herbs. Started in 2017, the organic farm was developed based on the environmental-friendly concept, for example through the use of organic home-made pesticides, instead of chemical pesticides to combat against pests. In addition, they also adopted Bokashi method to decompose food waste into effective and cheap fertilizers. To support the local industry, herbs grew in the farm were dried in a specially developed solar-powered dehydrator at the farm to be distributed to food and cosmetics companies. They further encouraged the local people to consume organic foods by welcoming them to harvest the produce at their own convenience. For such commitment, they were finally awarded as the winner of a national level community urban farming competition.

There were 40 people involved in the community farm. However, not all of them are active members or committed organic food consumers, thus the snowball sampling emerged as the most appropriate sampling technique that enabled the most committed organic food consumer to recruit the next eligible participant. Moreover, a sampling frame containing all organic food consumers was not available. Research participants were contacted to obtain their consent to participate in the study and were also encouraged to invite other acquaintances who can be potential participants.

3.3 Data Collection Procedure

Since the sample was selected based on the snowball sampling, the researchers initially contacted the first participant, the most active member of the community farm, to gain his consent to be interviewed and to confirm his eligibility as the research participant prior to the actual interview session. From the first interview, the second research participant was identified and subsequently, the third participant was recruited by the second participant. All of them are considered as the most committed, active and responsible in organic food farming and consumption. The data collection was ended due to saturation, where no new information was gained from the latter participants. The researchers also explained the objective of the study to ensure that the participants were well-informed about the overall research project. The researchers also discussed about the confidentiality and anonymity of the participants. Then, data were collected by using face-to-face semi-structured interviews with the selected participants. Each interview lasted for approximately 45 minutes.

3.4 Data Analysis

Thematic analysis was used to analyse the interview data. Thematic analysis contained six crucial steps which include familiarising with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing research report [19]. Thematic analysis was utilized due to its ability to capture latent meaning of participants' lived experience through their verbal description.

4. Findings and Discussion

Three participants were interviewed to explore their perception of the benefits and challenges of organic food consumption. Two of them are male and one is female. The male participants were pensioner (64 years old) and a businessman (47 years old), while the female participant was a housewife (43 years old). Based on the interview, two themes represented the benefits of organic food consumption which were healthiness and green environment. For the challenges of organic food consumption, price and availability of organic food product emerged as the themes.

4.2 Benefits of Organic Food Consumption

In relation to the benefits of organic food consumption, participants believed that organic food provide healthier food choice. They explained that in the food production process, only organic fertilizers are use and pesticides were not utilized to control pests. Based on their perception, they thoroughly believe these practices could produce more nutritive foods whilst supporting the health claim. They repeatedly described that to obtain good health, organic food was a better choice than non-organic food as it is produced without pesticides and hazardous chemicals. These findings aligned with earlier researches which found health benefits and objectives as a strong determinants of organic food consumption [15], [16], [14], [17].

Another finding of this study suggested that organic food consumption also supported towards a greener environment. The participants also advocated organic farming as beneficial activities which create healthier lifestyle and revive green environment, which bolstered earlier findings reported past studies [15], [16], [17]. With specific reference to organic farming, the participants indicated that organic food consumption indirectly influence them to grow their own food naturally by using less pesticides and fertilizers. The pesticides and fertilizers were said to cause harm to the environment when they dissolve into the soil.

4.3 Challenges of Organic Food Consumption

This study also pointed out several challenges in organic food supply. Organic food products are

found to be less available in the market in comparison to the conventional food products. In Tanjong Malim alone, not much organic food products are available in the market which left them with no choice but to grow their own organic food. The nearest area where organic food products were more available was in Klang Valley which was about 150 kilometres from Tanjong Malim. In previous research, convenience orientation affected organic food purchase negatively [17] and this finding was parallel with this research which highlighted the influence of proximity to procure organic food products as a challenge in organic food consumption.

Apart from availability of organic food products, the consumers are also constrained by the higher pricing of organic food products. In line with previous findings [14], [17] organic food products are offered at a higher price compared to non-organic products. For that reason, only middle-class consumers could afford such luxury, despite the fact that all market segments should have similar access to organic food offerings.

To overcome such problem, the participants suggested a barter system for organic food products in order to gain wider product varieties. Consumers can also start their own home-based organic fertigation system, thus enabling them to improve their food supply chain to reduce the dependency on organic food suppliers. This alternative could further ensure cost reduction and at same time, create strong collaboration among fellow traders. The challenges found in this study is in line with earlier research performed in Indonesia which investigated the sustainability of organic vegetables supply chain in rural area with narrow land [20]. The study underscored food security issue that could be alleviated by strong collaboration between the community members (organic vegetable producers), local government (setting up narrow land for organic farms), universities (suppliers of agro technology), and local institutions (providers of funding and technical assistance) to create an alternative and sustainable organic vegetable supply chain.

5. Conclusion

Organic food is perceived as more nutritious, healthier and more nature-friendly than conventional food. The general public belief that

organic food is healthier compared to the conventional ones and is the primary reason for its increased demand over the past decades. The main objective of this study is to explore perception of consumers towards organic food. The study explored consumers' perception of the benefits and challenges of organic food consumption. The findings revealed that "healthiness" and "green environment" as the benefits of organic consumption, while "high price" and "the lack of organic food availability" are described as the main challenges in organic food consumption. Overall, research participants had positive perception towards organic food. Despite consumers' positive perception of the health-related benefits of organic food, the products are not easily available in the market, resulting in higher price tag. Thus, home-grown organic products are suggested as a better option in sustaining organic food supplies. Future studies should explore the practice of exchanging organic crops between urban farmers via barter system to achieve cost reduction and gaining wider product varieties. Future studies should also consider using a larger sample to achieve better understanding on this issue.

References

- [1] Hsu, C.-L. and M.-C. Chen, *Explaining consumer attitudes and purchase intentions toward organic food: Contributions from regulatory fit and consumer characteristics*. Food Quality and Preference, 2014. 35: p. 6-13.
- [2] Central News Agency. *Food safety problems worry 80% of Taiwan's public: Poll*. 2013 5 November 2020 [cited 2020; Available from: <http://focustaiwan.tw/news/asoc/201311050044.aspx>].
- [3] Fernqvist, F. and L. Ekelund, *Credence and the effect on consumer liking of food—A review*. Food Quality and Preference, 2014. 32: p. 340-353.
- [4] Yee, W.M., R.M. Yeung, and J. Morris, *Food safety: building consumer trust in livestock farmers for potential purchase behaviour*. British Food Journal, 2005.
- [5] Rimal, A.P., W. Moon, and S. Balasubramanian, *Agro-biotechnology and organic food purchase in the United Kingdom*. British Food Journal, 2005.
- [6] Hasimu, H., S. Marchesini, and M. Canavari, *A concept mapping study on organic food consumers in Shanghai, China*. Appetite, 2017. 108: p. 191-202.

- [7] Suhaimi, S., I.Z. Ibrahim, and M.A.M. Abd Wahab, *Organic agriculture in Malaysia*. FFTC Agricultural Policy, 2016.
- [8] Organic Food Production Act. 1990, Title XXI of the Food, Agriculture, Conservation, and Trade Act of 1990, Public Law, 101-624; 104 Stat. 3359, 3935-3951, 7 U.S.C.6501-6522 (Supp. 1991).
- [9] Omar, N.A., et al., *The effect of demographic factors on consumer intention to purchase organic products in the Klang Valley: An empirical study*. Geografia-Malaysian Journal of Society and Space, 2017. 12(2).
- [10] Aschemann-Witzel, J. and S. Zielke, *Can't buy me green? A review of consumer perceptions of and behavior toward the price of organic food*. Journal of Consumer Affairs, 2017. 51(1): p. 211-251.
- [11] Massey, M., A. O'Cass, and P. Otahal, *A meta-analytic study of the factors driving the purchase of organic food*. Appetite, 2018. 125: p. 418-427.
- [12] Lee, H.-J. and J. Hwang, *The driving role of consumers' perceived credence attributes in organic food purchase decisions: A comparison of two groups of consumers*. Food quality and preference, 2016. 54: p. 141-151.
- [13] Chekima, B., et al., *Narrowing the gap: factors driving organic food consumption*. Journal of Cleaner Production, 2017. 166: p. 1438-1447.
- [14] Singh, A. and P. Verma, *Factors influencing Indian consumers' actual buying behaviour towards organic food products*. Journal of Cleaner Production, 2017. 167: p. 473-483.
- [15] Teng, C.-C. and C.-H. Lu, *Organic food consumption in Taiwan: Motives, involvement, and purchase intention under the moderating role of uncertainty*. Appetite, 2016. 105: p. 95-105.
- [16] Bryła, P., *Organic food consumption in Poland: Motives and barriers*. Appetite, 2016. 105: p. 737-746.
- [17] Janssen, M., *Determinants of organic food purchases: Evidence from household panel data*. Food Quality and Preference, 2018. 68: p. 19-28.
- [18] Zainol, Z., et al., *The Effect of Health Knowledge, Nutrition Label Use and Attitude towards Nutrition Label on Healthy Food Choice among Malaysian Consumer*. International Journal of Academic Research in Business and Social Sciences, 2019. 9(9).
- [19] Braun, V. and V. Clarke, *Using thematic analysis in psychology*. Qualitative research in psychology, 2006. 3(2): p. 77-101.
- [20] Margunani, Inaya Sari Melati, and Etty Soesilowati, *A modelling framework of sustainable supply chain management for organic vegetables in rural area with narrow land: An action research in Indonesia*. International Journal of Supply Chain Management, 2018. 7(2): p. 75-83.