

Malaysia Consumers Green Purchasing Behaviour Towards Organic Products: A Review

Nur Shahafiqah Nadiah Jaffery^(⋈) and Sharifah Nurafizah Syed Annuar

Faculty of Business and Management, Universiti Teknologi MARA Sabah Branch, Locked Bag 71, 88997 Kota Kinabalu, Sabah, Malaysia nadia_eppy@ymail.com

Abstract. Business ethics and social responsibility are becoming guiding principles for marketing strategies and activities in this current era of societal marketing. Environmental and green marketing topics are essential topics in the sphere of ethics and social responsibility, and they are directly tied to biodiversity and sustainability. The factors that influence consumers' green purchasing decisions are discussed in this paper accordingly based on previous studies up until 2022. The study further examines the association between different consumer barriers and green purchasing behaviours towards organic food in Malaysia at different levels of consumers' involvement and environmental concerns. Marketers and practitioners could use the study's findings to target this niche market and promote organic food to the general public. This could lead to a greater adoption of cleaner agricultural practices, such as organic farming, which is good for both society and the environment.

Keywords: Consumers' Green Behaviour · Organic Products

1 Introduction

Organic foods are being prepared in accordance with organic farming guidelines. Plant growth has been by using cow dung, goat dung and other organic manures to produce high yield. Antibiotics and hormones are not provided to organically bred animals. Organic agricultural approaches attempt to cycle resources, promote environmental balance, and avoid biodiversity decline, despite the fact that standards vary around the world. Organizations that sell and promote organic products may be able to regulate the use of non-macrobiotic insecticides and nutrients in the organic food production process. Organic farming is seen as a socialistic mode of agriculture that promotes agro- ecosystem health, including biodiversity, biological cycles, and soil biological activity.

Pollution and environmental challenges have increased demand for eco-friendly or green products, typically as a result of economic expansion (Chen et al., 2017; Narula and Desore, 2016; Teoh and Gaur, 2019; Chaudhary and Bisai, 2018; Narula and Desore, 2016; Desore and Narula, 2017). To achieve this, businesses and stakeholders are aligning their operations and goods to stay competitive (Dubey et al., 2016; Wang et al., 2018; Song et al., 2016; Martinez, 2012; Svensson and Wagner, 2015; Ozolin and Rosa,

2013; Desore and Narula, 2017; Poddar et al., 2019). Social, economic, cultural, and other contextual factors influence purchase decisions (Joshi and Rahman, 2016). The same is applicable in the food industry, where polluting conventional agriculture (Chen et al., 2017) is being phased out in favour of sustainable agricultural practises (Chauhan et al., 2019; Narula, 2009) in order to provide environmentally friendly products such as organic food.

As a result, the worldwide organic food market grew fivefold from 17.9 billion dollars in 2000 to 114 billion dollars in 2018 (Schlatteret al., 2020). Despite the fact that the market is expanding in all parts of the world, demand is concentrated in North America (45.2%), followed by Europe (38.5%) (Schlatter et al., 2020). However, the global average per capita expenditure on organic food is still only 12.8 dollars (2018) (Schlatter et al., 2020). Organic food appeals to consumers because it is thought to be safe, healthful, and environmentally beneficial (Tran, 2017; Janssen, 2018; Dangiet al., 2020). Despite this, many people's attention does not lead to a purchase (Sch€aufele and Hamm, 2018; Sultan et al., 2019; Aitken et al., 2020). Given the increased awareness of organic food and the relatively modest cost associated with it, this subject presents an intriguing research opportunity.

The purpose of this study is to find out what factors influence customers' decisions to buy organic foods. In the case of organic products, various studies have found that consumer views are associated to purchasing intention and behaviour (Aslihan Nasir and Karakaya, 2014; Sch€aufele and Hamm, 2018; Sultan et al., 2019). The majority of studies have focused on the relationship between green food choices and accompanying attitudes and behaviours (Lockie et al., 2004; Tarkiainen and Sundqvist, 2005; Tung et al., 2012; Zhou et al., 2013; Aslihan Nasir and Karakaya, 2014). As a result, the goal of this research is to look into the aspects that may influence consumers' green purchasing decisions when it comes to organic food.

2 Organic Food

Organic food is defined as food that has been grown, harvested, stored, and/or processed without the use of traditional synthetic fertilizers, synthetic chemicals such as fungicides, pesticides, herbicides, growth hormones, or genetically engineered organisms or ingredients (Ngobo, 2011). Organic food consumption has increased dramatically during the last decade around the world (Rana and Paul, 2017). The global market for organic food reached \$110.25 billion in 2016, according to TechSci Research, and is predicted to reach \$262.85 billion by 2022. Organic food is expected to increase rapidly in Asia Pacific countries, accounting for more than 12% of global revenue by 2025 (Grand View Research, 2017).

This expansion can be attributed to the development of these countries' agriculture sectors, as well as the high demand for organic products among local customers (Grand View Research, 2017). In 2012, Asian countries had 3.2 million hectares of total organic farming land (or 9% of the world's total organic farming area) (Willer and Lernoud, 2018). China is the Asian country with the most land dedicated to organic farming. Organic farms encompass 1.9 million hectares of land (Willer and Lernoud, 2018); India follows with around 500,000 hectares of land devoted for organic farming (Willer and Lernoud, 2018).

The rising global population is one of the causes for increased organic farming. Furthermore, customers are becoming more conscious of their health and campaigns promoting sustainable agricultural production (Willer and Kilcher, 2009). A similar trend can be seen in Malaysia, where organic food consumption is increasing at a rapid rate (Suhaimee, et al., 2016).

The organic food market in Malaysia has grown dramatically in recent years, from RM 1 billion in 2001 to more than RM 12 billion in 2016 (Willer and Lernoud, 2018). A surge in demand for organic food among Malaysian consumers can be ascribed to the quick increase in sales. Malaysian consumers have expressed a great interest in a wide range of organic products, including milk, eggs, packaged foods, and other manufactured goods, to retailers and downstream suppliers (Hasan and Talib, 2011).

3 Consumers Purchasing Behaviour

Consumer purchasing behaviour is their final decision and buying behaviour purchasing process (Jeyakumar, Victor, Popp, Fekete-Farkas & Olah, 2021). With the world's population expected to reach 8.5 billion by 2030, the demand for food is anticipated to grow, which will inevitably lead to genetic modification agriculture (i.e., transgenic plants) that have been susceptible to ingesting particular levels of toxins and antibiotics (Key, Ma & Drake, 2008). Organic product sales hit US\$90 billion in 2016 and are expected to reach US\$320.5 billion by 2025, according to forecasts (Mustapha, 2018). Nonetheless, the organic food sector is still growing slowly and remains a small niche. Due to the fact that green notion is still in its infancy in Malaysia (Chiew et al., 2015), the local organic food business is seen as minor, with more than 60% of organic food imported from other countries (Somasundram, Razali, and Santhirasegaram, 2016). In the year 2013, it only contributed for US\$4.1 million in sales under the health and wellness categories, which accounted for US\$2924.8 million in total sales (Market Access Secretariat: Global Analysis Report, 2014).

In today's world, consumers are concerned about the impact of their purchasing decisions behaviour on the environment (Vazifehdousta et al., 2013), which may encourage them to purchase more organic foods grown without the use of pesticides and chemical fertilisers. Malaysian government has been gradually instilling awareness to modify Malaysians' food consumption pattern (Mutlu, 2007; Suhaimee, Ibrahim, and Wahab, 2016), notably ingestion of healthier and nutritious foods (Mutlu, 2007; Suhaimee, Ibrahim, & Wahab, 2016). Despite the fact that organic food prices are often higher than other conventional foods, demand for organic food is predicted to grow as a result of the increased purchasing power (Teng, Rezai, Mohamed, and Shamsudin, 2011; Su, Wang, and Ho, 2012). According to previous research, green consumers are less price sensitive due to their choice for higher quality and safer items (Thing, Evon, Thye and Tien, 2014). The perception virtue of organic labelling products has indeed been positively associated with healthiness (Ling and Ang, 2018), and customers' determinant of organic food against conventional foods has been conspicuously appertaining of customers' selection criterion of organic food against conventional foods (Aetsens, Mondelaers, Verbeke, Buysse and Van Huylenbroecken, 2011; Manongko and Kambey, 2018).

4 Challenges and Alternatives

In Malaysia, the organic food business is confronting a number of issues. Although the demand for organic food is increasing, the supply of organic products in the local area is not keeping up. Aside from the inconsistency of supply, the range of organic food available in the area is also limited. As a result, Malaysia continues to rely largely on imported organic food, particularly from the United States, Japan, Australia, New Zealand, and China (Somasundram, Razali and Santhirasegaram, 2016).

Another issue that organic food customers in the area encounter is the price gap between organic and conventional foods (Massey, O'Cass and Otahal, 2018). Although it is common knowledge that organic food is more expensive than conventional food, the price differential in Malaysia is exceptionally large, ranging from 100 to 300 percent, compared to only 25 to 30 percent in the United States and the European Union (EU) (Food and Agriculture of the United Nations, 2017). The greater price is due to increased production expenses, particularly labour costs, as well as a loss of income or opportunity costs when farmers switch from conventional to organic farming (Luczka and Kalinowski, 2020).

A consumer's concern for the environment may lead them to purchase an organic product; but the high prices may prevent them from doing so. In contrast, despite the high cost, there is still a growing demand for organic products around the world. This is mostly owing to the possibility of higher nutritional value and/or lower food safety issues (Tandon, Dhir, Kaur, Kushwah and Salo, 2020).

Moreover, despite the government's certification efforts, consumers still have reservations about "organic" produce (Ayyub, Wang, Asif & Ayyub, 2018). More needs to be done to address the marketplace's current issue of credibility and trust. In general, farmers, merchants, and consumers are unaware of the larger scope of organic production and processing requirements in local market (Conroy and Lang, 2021; Nguyen, Yeh and Huang, 2022).

5 Methodology

To achieve the goal of this paper, a comprehensive literature review is conducted. The search concept was introduced using the terms "consumers purchasing behavior" and "organic food" in Google Scholar from the beginning of the year until the April 2022. The papers in this review must analyse the issues and challenges among Malaysians' purchasing behaviour in organic food. Finally, twenty articles were found and included in this study.

6 Conclusion

Organic food's future will be primarily determined by consumer demand. The purpose of this study is to show that the perceived value of organic food items, as well as health and environmental concerns, are factors that impact Malaysian' purchasing intentions for organic food. According to a recent study, the percentage of consumers who purchase organic foods differs among countries and product categories. The findings of the

study are expected to give organic food suppliers and marketers a better knowledge of Malaysian consumers' purchasing intentions for organic food.

As a result, this study discovered information on the profile of organic food consumers and expanded the range of marketing knowledge and options available. According to the findings of this study, local Malaysian producers should concentrate on the production and quality of organic food in order to differentiate their products from those produced in other places or imported from other countries and sold at low costs by supermarkets and other stores. Practitioners should also structure their marketing and promotion mix, focusing on factors and consumer behaviours and specifically target individuals who are concerned about health safety and environmental protection, as well as those who are motivated by psychological elements such as prestige and intrigue, as well as those who are concerned about health safety issues and the product's location.

In terms of the study's practical applications, the findings could be useful in the development of various market approaches based on customer groups. Strategies encouraging the consumption of organic foods are required to achieve this, and they must be driven and led by public groups to be effective. This knowledge can be applied by practitioners to improve their marketing communication techniques in order to enhance the sale of organic food on the market. Despite Malaysian may be aware of the benefits of organic food, there are other elements that have a greater impact on consumers' intentions to purchase organic food. Future research should concentrate more completely on other factors influencing customers' purchase intentions for organic food items, with a wider target segment.

Acknowledgments. This paper entitled "Malaysia Consumers Green Purchasing Behaviour towards Organic Products: A Review" was funded by Universiti Teknologi MARA under research grant, Geran GIP (600-RMC/GIP 5/3). The authors wish to thank Universiti Teknologi MARA (UiTM) and management of Universiti Teknologi MARA (UiTM) Sabah branch for this privilege.

Authors' Contributions. Nur Shahafiqah Nadiah Jaffery and Sharifah Nurafizah Syed Annuar conceived, designed and performed the research together for this paper.

References

- Chen, J.D., Wang, Y., Song, M.L. and Zhao, R.C. (2017), "Analyzing the decoupling relationship between marine economic growth and marine pollution in China", Ocean Engineering, Vol. 137, pp. 1–12.
- Narula, S.A. and Desore, A. (2016), "Framing green consumer behaviour research: opportunities and challenges", Social Responsibility Journal, Vol. 12 No. 1, pp. 1–22.
- Teoh, C. and Gaur, S. (2019), "Environmental concern: an issue for poor or rich", Management of Environmental Quality, Vol. 30 No. 1, pp. 227–242.
- Chaudhary, R. and Bisai, S. (2018), "Factors influencing green purchase behavior of millennials in India", Management of Environmental Quality, Vol. 29 No. 5, pp. 798–812.
- Desore, A. and Narula, S.A. (2018), "An overview on corporate response towards sustainability issues in textile industry", Environment, Development and Sustainability, Vol. 20 No. 4, pp. 1439–1459

- Dubey, R., Gunasekaran, A., Childe, S.J., Papadopoulos, T., Wamba, S.F. and Song, M. (2016), "Towards a theory of sustainable consumption and production: constructs and measurement", Resources, Conservation and Recycling, Vol. 106, pp. 78–89.
- Wang, J., Tian, Y., Song, M., Zhao, J. and Li, H. (2018), "Coal saving in China: from pareto-Koopmans to Kaldor-hicks criterion", Journal of Organizational Change Management, Vol. 31 No. 1, pp. 103–117.
- Song, M., Cen, L., Zheng, Z., Fisher, R., Liang, X., Wang, Y. and Huisingh, D. (2016), "How would big data support societal development and environmental sustainability? Insights and practices", Journal of Cleaner Production, Vol. 142, pp. 489–500.
- Martinez, F. (2012), "The syncretism of environmental and social responsibility with business economic performance", Management of Environmental Quality, Vol. 23 No. 6, pp. 597–614.
- Ozolina, L. and Rosa, M. (2013), "The consumer's role in energy efficiency promotion in Latvian manufacturing industry", Management of Environmental Quality, Vol. 24 No. 3, pp. 330–340.
- Joshi, Y. and Rahman, Z. (2016), "Predictors of young consumer's green purchase behaviour", Management of Environmental Quality, Vol. 27 No. 4, pp. 452–472.
- Chauhan, A., Kaur, H., Yadav, S. and Jakhar, S.K. (2019), "A hybrid model for investigating and selecting a sustainable supply chain for agri-produce in India", Annals of Operations Research, Vol. 290 No. 1, pp. 621–642.
- Schlatter, B., Travnicek Willer, J.H. and Lernoud, J. (2020), "Organic agriculture worldwide: current statistics", in Willer, H., Schlatter, B., Travnicek, J., Kemper, L. and Lernoud, J. (Eds), The World of Organic Agriculture. Statistics and Emerging Trends 2020, FiBL, Frick and IFOAM Organics International, Bonn, pp. 31–69.
- Tran, A.H. (2017), "Factors of consumers acceptance of organic food", Actual Problems of Economics, Vol. 189, pp. 150–157.
- Dangi, N., Narula, S.A. and Gupta, S.K. (2020), "Influences on purchase intentions of organic food consumers in an emerging economy", Journal of Asia Business Studies, in press, advance online publication, https://doi.org/10.1108/JABS-12-2019-0364.
- Janssen, M. (2018), "Determinants of organic food purchases: evidence from household panel data", Food Quality and Preference, Vol. 68, pp. 19–28
- Aitken, R., Watkins, L., Williams, J. and Kean, A. (2020), "The positive role of labelling on consumers' perceived behavioural control and intention to purchase organic food", Journal of Cleaner Production, Vol. 255, p. 120334
- Sch€aufele, I. and Hamm, U. (2018), "Organic wine purchase behaviour in Germany: exploring the attitude-behaviour-gap with data from a household panel", Food Quality and Preference, Vol. 63, pp. 1–11.
- G. Bobaru, C.S. Pasareanu, D. Giannakopoulou, Automated assume-guarantee reasoning by abstraction refinement, in: A. Gupta, S. Malik (Eds.), Proceedings of the Computer Aided Verification, Springer, Berlin, Heidelberg, 2008, pp. 135–148. https://doi.org/10.1007/978-3-540-70545-1_14
- Sultan, P., Tarafder, T., Pearson, D. and Henryks, J. (2019), "Intention-behaviour gap and perceived behavioural control-behaviour gap in theory of planned behaviour: moderating roles of communication, satisfaction and trust in organic food consumption", Food Quality and Preference, Vol. 81.
- Aslihan Nasir, V. and Karakaya, F. (2014), "Consumer segments in organic foods market", Journal of Consumer Marketing, Vol. 31 No. 4, pp. 263–277.
- Lockie, S., Lyons, K., Lawrence, G. and Grice, J. (2004), "Choosing organics: a path analysis of factors underlying the selection of organic food among Australian consumers", Appetite, Vol. 43, pp. 135–146.
- Tung, S.-J., Shih, C.-C., Wei, S. and Chen, Y.-H. (2012), "Attitudinal inconsistency toward organic food in relation to purchasing intention and behavior: an illustration of Taiwan consumers", British Food Journal, Vol. 114 No. 7, pp. 997–1015.

- Tarkiainen, A. and Sundqvist, S. (2005), "Subjective norms, attitudes and intentions of Finnish consumers in buying organic food", British Food Journal, Vol. 107 Nos 10–11, pp. 808–22.
- Zhao, B. and Xu, S. (2013), "Does unethical consumer behavior relate to birthplace? Evidence from China", Journal of Business Ethics, Vol. 113 No. 3, pp. 475–488.
- Zhou, Y., Thøgersen, J., Ruan, Y. and Huang, G. (2013), "The moderating role of human values in planned behavior: the case of Chinese consumers' intention to buy organic food", Journal of Consumer Marketing, Vol. 30 No. 4, pp. 335–344.
- Scalco, A., Noventa, S., Sartori, R. and Ceschi, A. (2017), "Predicting organic food consumption: a metaanalytic structural equation model based on the theory of planned behavior", Appetite, Vol. 112, pp. 235–248.
- Rana, J. and Paul, J. (2017), "Consumer behavior and purchase intention for organic food: a review and research agenda", Journal of Retailing and Consumer Services, Vol. 38, pp. 157–165.
- Massey, M., O'Cass, A. and Otahal, P. (2018), "A meta-analytic study of the factor driving the purchase of organic food", Appetite, Vol. 125, pp. 418–427.
- Ngobo, P. V. (2011). What drives household choice of organic products in grocery stores? *Journal of retailing*, 87(1), 90–100.
- Grand View Research, I. (2017). Natural Food Colors Market Estimates & Trend Analysis by Product (curcumin, Carotenoids, Anthocyanin, Carmine, Chlorophyllin), by Application (Bakery & Confectionery, Beverages, Dairy & Frozen Products, Meat Products), and Segment Forecasts, 2018–2025.
- Willer, H., & Lernoud, J. (2018). The world of organic agriculture. Statistics and emerging trends 2018.
- Jeyakumar Nathan, R., Victor, V., Popp, J., Fekete- Farkas, M., & Oláh, J. (2021). Food innovation adoption and organic food consumerism—A cross national study between Malaysia and Hungary. Foods, 10(2), 363.
- Key, S., Ma, J. K.C., & Drake, P. M. (2008). Genetically modified plants and human health. *Journal of the Royal Society of Medicine*, 290–298.
- Mustapha, K. (2018, February 20). Degrees of meaning in 'healthy food'. New Straits Times. Retrieved from https://www.nst.com.my.
- Chiew, S. W., Ariff, M. S. M., Zakuan, N., Tajudin, M. N. M., Ismail, K., & Ishak, N. (2015). Consumers perception, purchase intention and actual purchase behavior of organic food products. Review of Integrative Business & Economics Research, 3(2), 378–397.
- Somasundram, C., Razali, Z., & Santhirasegaram, V. (2016). A Review on organic food production in Malaysia. Horticulture, 1–5
- Market Access Secretariat: Global Analysis Report (June 2014). Retrieved on August 17, 2018 from http://www.agr.gc.ca/resources/prod/Internet-Internet/MISB-DGSIM/ATS-SEA/PDF/6510-eng.pdf
- Vazifehdousta, H., Taleghanib, M., Esmaeilpourc, F., Nazaric, K., & Khadang, M. (2013). Purchasing green to become greener: Factors influence consumers' green purchasing behavior. *Management of Science Letters*, 3, 2489–2500.
- Mutlu, N. (2007). Consumer attitude and behaviour towards organic food: cross-cultural study of Turkey and Germany. Master Thesis, Universitsat Hohenheim, Germany.
- Suhaimee, S., Ibrahim, I. Z., & Wahab, M. A. (2016). Organic agriculture in Malaysia. Retrieved on 19 November 2016 from http://ap.fftc.agnet.org/ap_db.php?id=579.
- Teng, P. K., Rezai, G., Mohamed, Z., & Shamsudin, M. N. (2011). Consumers' intention to purchase green foods in Malaysia.International Conference on Innovation, Management and Service, 14, 112–118.
- Su, J. C., Wang, L., & Ho, J. C. (2012). The impacts of technology evolution on market structure for. *Mathematical and Computer Modelling*, 1381–1400.
- Thing, E. L., Evon, K., Thye, S. H., & Tien, T. E. (2014). A study of consumers' purchase intention toward green food. Doctoral dissertation, University Tunku Abdul Rahman, Malaysia

- Ling, S. S., & Ang, Y. C. (2018). Factor influencing intention to purchase organic foods among academic staff in Sarawak. South East Asia Journal of Contemporary Business, Economics and Law, 17(2), 21–27.
- Aertsens, J., Mondelaers, K., Verbeke, W., Buysse, J., & Van Huylenbroeck, G. (2011). The influence of subjective and objective knowledge on attitude, motivations and consumption of organic food. *British food journal*.
- Manongko, A. A. C., & Kambey, J. (2018). The influence of green marketing on decision purchasing organic products with interests of buying as an intervening variable at Manado City, Indonesia.
- Massey, M., O'Cass, A., & Otahal, P. (2018). A meta-analytic study of the factors driving the purchase of organic food. *Appetite*, 125, 418–427.
- Food and Agriculture Organization of the United Nations Rome, 2017.
- Łuczka, W., & Kalinowski, S. (2020). Barriers to the development of organic farming: A polish case study. *Agriculture*, 10(11), 536.
- Tandon, A., Dhir, A., Kaur, P., Kushwah, S., & Salo, J. (2020). Why do people buy organic food? The moderating role of environmental concerns and trust. *Journal of Retailing and Consumer Services*, 57, 102247.
- Ayyub, S., Wang, X., Asif, M., & Ayyub, R. M. (2018). Antecedents of trust in organic foods: The mediating role of food related personality traits. *Sustainability*, 10(10), 3597.
- Conroy, D. M., & Lang, B. (2021). The trust paradox in food labelling: an exploration of consumers' perceptions of certified vegetables. *Food Quality and Preference*, 93, 104280.
- Nguyen, T. H. N., Yeh, Q. J., & Huang, C. Y. (2022). Understanding consumer's witching intention toward traceable agricultural products: Push-pull-mooring perspective. *International Journal of Consumer Studies*, 46(3), 870–888.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

