

IMPACT OF ENVIRONMENTAL AWARENESS AND ORGANIC CONSUMPTION ON CONSUMER SUBJECTIVE WELL-BEING

Vilma TAMULIENĖ^{1*}, Lina PILELIENĖ²

¹*Department of Management, Faculty of Business Management,
Vilnius Gediminas Technical University, Saulėtekio al. 11, LT-10223 Vilnius, Lithuania*

²*Faculty of Economics and Management, Vytautas Magnus University,
K. Donelaičio g. 58, LT-44248 Kaunas, Lithuania*

Received 10 March 2023; accepted 3 April 2023

Abstract. During the latter decade, environmental issues have been gaining increasing attention from scholars and practitioners. Contemporary consumers are becoming more informed, and consequently are changing their lifestyles. Being aware of environmental issues, consumers are paying more attention to the harm caused to the environment by consumption, adopting green consumption behaviours, also, start consuming more natural and organic products. However, is such kind of behaviour beneficial to consumers? Has it had any effect on their subjective well-being? Answering these questions is becoming important to marketers producing and selling organic products, as well as to public organizations promoting environmentally friendly lifestyles. This study based on the questionnaire survey, aims to determine the impact of consumer environmental awareness and organic consumption on their subjective well-being.

Keywords: consumption, environmental awareness, Lithuania, organic products, well-being.

JEL Classification: E20, I12, I31.

Introduction

In the last decade, environmental issues have received more and more attention from researchers and practitioners. Reducing the harmful impact on the environment is a priority goal in implementing the provisions of the sustainable development strategy. Sustainable development aims to change citizens' behavior and habits related to consumption and production activities and is based on three main pillars of sustainability: economic, environmental and social (Santana, 2018, cit. from do Prado & Moraes, 2020).

These goals and challenges are important for organic production and consumption. Organic production has become popular because it has a sustainable basis, and its principles are environmentally correct, socially correct, and economically viable production (Pinheiro et al., 2018, cit. from do Prado & Moraes, 2020).

Realizing environmental problems, consumers pay more attention to the harm caused by the consumption, adhere to ecological consumption behavior, and consume more natural and organic products. Therefore, there is an increase in consumer awareness of organic consumption,

which is green and less harmful to the environment (Kumar et al., 2018).

Also, the growth of the market for natural and organic products is due to the changed behavior of consumers, who are now more aware and concerned about environmental issues and personal well-being, and therefore choose new consumption trends, the so-called conscious consumption, which also manifests itself through organic products. Although organic products are not the only category of sustainable consumption, their consumption is perceived as an opportunity to increase the environmental aspect of food consumption (Mondini et al., 2018, cit. from do Prado & Moraes, 2020).

Therefore, to realize sustainable consumption, it is necessary to understand the conscious behavior of buying green products (Hsu et al., 2019; Qi & Ploeger, 2019). But are behaviors like green consumption good for consumers? Does it affect their subjective well-being? Research conducted by researchers Branco et al. (2019), Demirtas (2018), Kim (2019) shows that one of the motivators of well-being for using organic products is the user's perception of the product's benefits for themselves and the environment.

* Corresponding author. E-mail: vilma.tamuliene@vilniustech.lt

This paper aims to determine the impact of consumer environmental awareness and organic consumption on their subjective well-being. To reach the aim, further objectives are established:

- To determine indicators of consumer environmental awareness;
- To determine the influence of consumer environmental awareness on the intentions of consuming organic foods;
- To substantiate the impact of consumer intentions on the behavior of consuming organic foods;
- To determine the influence of both: consumer environmental awareness and consumer behavior of consuming organic foods on subjective consumer well-being.

To reach the aim and solve the established objectives, the paper is organized as follows. Theoretical substantiation of the possible impact of environmental awareness and organic consumption on consumer subjective well-being, and related hypotheses are provided in a Section 1. The methodology dedicated to reach the aim and solve the objectives is constructed in Section 2. Section 3 of the paper presents the results of the survey and verification of hypotheses. The paper ends with conclusions and implications for further research.

1. Theoretical background

1.1. Environmental awareness

Environmental awareness has become increasingly important in recent years as consumers become increasingly aware of the impact of their actions on the environment. Environmental awareness aims to increase knowledge and positive attitudes and behaviour towards the environment (Novotny et al., 2021). According to Zsóka et al. (2013), environmental awareness means donating information and awareness about environmental issues and resolutions.

One of the aims of environmental awareness is to change consumer behavior. Behavioral change is an important aspect of environmental awareness because it involves actions to reduce environmental impact and promote sustainability. Environmental awareness has been the subject of various studies to develop indicators to measure it with consumer behaviour and promote sustainability (Franzen & Meyer, 2010; Inglehart et al., 2000). Such indicators as concerns about waste, search for healthy quality, environmental concerns and engaged consumption were chosen to create the research model of this article. Their choice was determined by the scientific and empirical research conducted by researchers such as Li et al. (2020), do Prado and Moraes (2020), Tamulienė et al. (2016), Pilelienė and Tamulienė (2021).

An empirical study by Li et al. (2020) confirmed that environmental awareness influences consumers' engaged consumption. Also, Environmental awareness is closely related to concern about waste. As people become more aware of the impact of human activities on

the environment, they are increasingly concerned about the amount of waste generated and its impact on the planet. This has led to a growing movement towards waste reduction, reuse and recycling. Another study was conducted in Brazil by do Prado and Moraes (2020) confirmed that environmental awareness affects concerns about waste and engaged consumption. The research conducted by Tamulienė et al. (2016) confirmed that ecologically conscious consumers – are such consumers, who are worried about the product's friendliness to the environment (in the whole process of its production and consumption); therefore, we assume that Environmental awareness affects environmental concerns.

Another indicator of a search for healthy quality was chosen by the research conducted by Pilelienė and Tamulienė (2021), where it was found that this factor is the strongest among Lithuanian consumers when consuming products, and it is assumed that it is linked to Environmental awareness.

1.2. Environmental awareness and organic consumption

Environmental awareness and organic consumption are closely related. Examining organic consumption behaviour toward environmental sustainability, numerous researchers have shown that the decision to buy and consume organic food is strongly and progressively determined by environmental awareness among consumers (Laureti & Benedetti, 2018).

As people become more aware of the impact of human activities on the environment, they are increasingly concerned about the use of chemicals and other pollutants in food production. This has led to a growing interest in organic consumption. Researchers such as Sarkis et al. (2011) argue that increased environmental awareness among citizens can lead to greater consumption of organic products. Therefore, the following hypothesis is proposed.

H1: Consumer environmental awareness influences the intentions of consuming organic foods positively.

Organic consumption includes choosing products made without the use of synthetic pesticides, fertilizers or other chemicals. Organic farming practices aim to promote soil health and biodiversity and reduce the use of resources such as water and energy. Organic consumption is beneficial not only for the environment but also for personal health. Organic produce does not contain many of the harmful chemicals and additives found in conventionally produced food and may contain more beneficial nutrients.

Going organic can take many forms, from choosing organic products at the grocery store to supporting local farmers who practice sustainable farming. Choi and Johnson (2019) concludes that increasing environmental awareness, along with worries about harmless foods, caused individuals to question contemporary farming practices, so that sustainability of the environment can continue. It is considered an essential element affecting

the consumption behavior of individuals and the sustainability of the environment. Organic consumption is an important part of environmental awareness and promotes changes in food production and consumption. By choosing organic products, individuals can help reduce the use of harmful chemicals and promote sustainable farming practices, as well as support their own health and well-being.

1.3. Organic consumption

Organic consumption is defined in research from the perspective of the consumer (Kotler, 2011). From the consumer's perspective, organic consumption includes eco-labelled goods produced in accordance with specific standards related to raw material cultivation practices, processing methods, delivery, etc. (Brouhle & Khanna, 2012). In addition, organic consumption promises to reduce the negative effects of environmental impact and less the use of natural resources throughout the product life cycle (White et al., 2019).

Another important aspect related to organic consumption is that, according to the authors Mai et al. (2021, p. 1152) "consumers frequently express great concern for the environment, but a disconnect persists between their reported attitudes and their behaviors." To define consumers' environmental awareness related to organic consumption, we distinguished two dimensions: consumers' purchase intention and actual purchase of environmentally friendly products/organic products. According to researcher, White et al. (2019, p. 231) consider, the attitude-behavior gap as the "biggest challenge for marketers, companies, public policymakers, and nonprofit organizations aiming to promote sustainable consumption." We must note that organic consumption is analyzed in the scientific literature as attitudinal and behavioral dimensions. As an attitudinal dimension, it is the intention to buy organic products; the behavioral aspect is buying organic products.

A variety of scientific research (e.g., Mainieri et al., 1997; Laureti & Benedetti, 2018; Shen & Wang, 2022) has shown the links between environmental awareness and consumers' purchase intention of organic products. Previous research has revealed that consumers with greater environmental awareness are more conscious of buying green products, believing that they are responsible for purchasing environmentally friendly products (Mainieri et al., 1997).

According to Shen and Wang (2022), consumers show more willingness to buy such eco-friendly products who have environmental awareness as compared to those who have no awareness about the environment.

In addition, Li et al. (2020) empirically analyzed and substantiated the conclusion that environmental awareness positively affects green purchase intentions. Therefore, the following hypothesis is proposed.

H2: Consumer intentions positively influence the behavior of consuming organic foods.

1.4. Consumer subjective well-being

People's well-being depends on many factors. This article analyzes environmental awareness and the influence of organic product consumption on consumers' subjective well-being. As a result, when analyzing subjective consumer well-being, we focused on those studies that link consumer well-being with consumption. According to researchers Ganglmair-Wooliscroft and Wooliscroft (2019), consumption is central to many people's lives and their well-being. Consumer well-being focuses on the satisfaction, pleasure and quality of life perceived by consumers through consumption activities (Zhang & Zuo, 2007).

Well-being is the highest ideal state that consumers can achieve. How does buying organic products affect consumers in terms of improving their subjective well-being? The research identified three factors for the subjective well-being of consumers: approaches to physical, psychological and social well-being. According to the researchers Zhao and Wei (2019), researching consumer well-being at the individual level focuses on consumer well-being through the individual's physical and mental (psychological health). A 2019 study by researcher Hyun-Joo Lee found that consumers were more likely to consume organic foods, and they were more likely to perceive higher physical, psychological and social well-being.

Hence, the following hypotheses are suggested.

H3: Consumer behavior of consuming organic foods influences subjective consumer well-being.

H4: Consumer environmental awareness influences subjective consumer well-being.

As shown in Figure 1, the research model of this study is based on the analysis of the scientific literature and the proposed hypotheses.

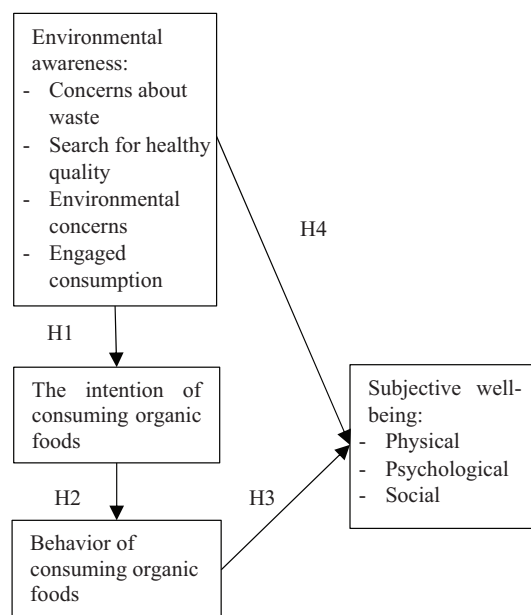


Figure 1. Research model

Further, empirical research will be provided to verify the theoretical model.

2. Methodology

Theoretical analysis of the main concepts and their determinants enables constructing a conceptual framework for empirical research. A questionnaire was constructed to verify the theoretical model, and the self-report survey was provided.

The research instrument was composed based on theoretical analysis and encompassed questions provided by Inglehart et al. (2000), Pilelienė and Tamulienė (2021), Lee (2019), and Kim and Choi (2005). The questionnaire encompassed two structural parts: issue-related part and consumer socio-demographic characteristics-related part. The issue-related part encompassed 9 questions, presenting the main theoretically established factors, i.e.: environmental awareness, consumer intentions to consume organic products, actual consumer behavior regarding the consumption of organic foods, and subjective well-being representing factors. To assess consumer environmental awareness, four determinants were established: concerns about waste (CAW, 6 items), search for healthy quality (SHQ, 7 items), and environmental concerns (EC, 3 items) and engagement in organic consumption (EOC, 2 items). Consumer intentions to consume organic products (INTENT) and actual consumer behavior regarding the consumption of organic foods (BEH) were measured by 3 statements each. To assess consumer subjective well-being (WB), three determinants were given: physical well-being (PHYS, 2 items), and psychological well-being (PSYCH, 5 items). And social well-being (SWB, 3 items). Also, a general question about subjective well-being was provided to assess consumers perception of the general level of their well-being: consumers were asked to evaluate a) the general level of their well-being (GLWB), and b) their general life satisfaction (GLS). Therefore, the issue-related part of the questionnaire comprised 36 statements provided in a 5-point Likert scale ("1" meant total disagreement with the statement, and "5" meant total agreement). A pilot study with 18 respondents was provided to detect any possible confusion with the statements and for improvements. After the pilot, environmental concerns and engagement in organic consumption were aggregated into one factor (ECE, 5 items) and the final version of the questionnaire was established. IBM SPSS Statistics V.20 package was applied to examine the data.

The survey was provided in Lithuania in January of 2023. A convenience sampling method was applied, and the sample was composed of 231 respondents, randomly reached through social networks. The sample size was calculated using G*Power (Faul et al., 2007), indicating that a sample size of 220 observations is needed to achieve a statistical power of 0.95 and the effect size of 0.3. Thus, a sample of 231 respondents is suitable to reliably detect effects when they exist in the population. The

sample socio-demographic characteristics are provided in Table 1.

Table 1. Respondent characteristics

Characteristic	Answer	Frequency	Percent
Gender	Male	78	33.8
	Female	147	63.6
	Not indicated	6	2.6
	Total	231	100.0
Age	18–25 years	135	58.4
	26–35 years	18	7.8
	36–45 years	30	13.0
	46–55 years	42	18.2
	56–65 years	4	1.7
	65+ years	2	0.9
	Total	231	100.0
Education	Primary school	3	1.3
	High school	112	48.5
	College	37	16.0
	University	79	34.2
	Total	231	100.0
Occupation	Student	97	42
	Employee	80	34.6
	Specialist	33	14.3
	Manager	11	4.8
	Retired	3	1.3
	Unemployed	7	3
	Total	231	100.0
Income	<300 Eur.	27	11.7
	300–600 Eur.	72	31.2
	601–900 Eur.	29	12.6
	901–1200 Eur.	62	26.8
	1201–1500 Eur.	28	12.1
	>1500 Eur.	13	5.6
	Total	231	100.0
Place of residence	Big city	111	48.1
	City	69	29.9
	Town	24	10.4
	Village	27	11.7
	Total	231	100.0

Based on the demographic characteristics of the sample, the research results will mainly represent opinion of educated Lithuanians of the working age, living in a city. The research was not intended to represent some particular segment of society; therefore, an assumption is made that socio-demographic characteristics only represent the sample and have no statistically significant impact on research results.

Table 2 presents Cronbach's alpha coefficients, which were found to be above the threshold value of 0.7, suggesting that all the factors had strong internal consistency (Hair et al., 2019).

Table 2. Scale reliability

Dimension	N of Items	Cronbach's Alpha
Concerns about waste	6	0.859
Search for healthy quality	7	0.822
Environmental concerns and engagement	5	0.829
Consumption intention of organic foods	3	0.950
Consumption behaviour of organic foods	3	0.768
Physical well-being	2	0.861
Psychological well-being	6	0.906
Social well-being	3	0.883

The suitability of data for further analysis was tested by applying the Kolmogorov-Smirnov Test of normality. The results of the Kolmogorov-Smirnov Test indicated that the data are not normally distributed (the p values were all below 0.05). As the model looks for causal relationships between variables, it is based on the correlations not the distribution (Hair et al., 2019). Therefore, the data is considered as being suitable for further research.

3. Results

While assessing the proportion of the variance in the dependent variables (i.e., intentions to consume organic products (INTENT), actual consumer behavior regarding the consumption of organic foods (BEH), consumer subjective well-being (WB), physical well-being (PHYS), psychological well-being (PSYCH), and social well-being (SWB)) that is predictable from the independent variables (i.e., concerns about waste (CAW), search for healthy quality (SHQ), environmental concerns and engagement in organic consumption (ECE), intentions to consume organic products (INTENT), and actual consumer behavior regarding the consumption of organic foods (BEH)), the determination coefficients (R^2) were calculated (Table 3).

Table 3. Determination coefficients describing the relationship between the model variables

Dependent variable	Independent variables	R^2
INTENT	CAW, SHQ, ECE	0.602
BEH	INTENT	0.448
BEH	CAW, SHQ, ECE	0.434
PHYS	BEH	0.126
PSYCH	BEH	0.031
SWB	BEH	0.016
WB	BEH	0.064
WB	CAW, SHQ, ECE	0.168

The results provided in Table 3 reveal that coefficients of determination are high enough to provide linear regression analysis in cases where intentions to consume organic products and actual consumer behavior regarding the consumption of organic foods are being explained. Even more than 60 percent of variance in consumer intentions regarding the consumption of organic products can be explained by the determinants of consumer environmental awareness. Intentions can explain almost 45 percent of consumer behavior regarding the consumption of organic foods; also, by consumer concerns about waste, search for healthy quality, and environmental concerns and engagement in organic consumption (R^2 is 0.434).

However, the research results failed to explain a presupposed effect of consumer behavior regarding the consumption of organic foods on consumer subjective well-being. It must be mentioned that analyzed consumer behavior explains almost 13 percent of variance in consumer perceived physical well-being, and such results might be assumed as important considering consumer physical well-being might be affected by many different other factors. However, in the cases of psychological well-being, social well-being, and general subjective well-being, R^2 coefficients were obtained being close to 0.

Latter results regarding the presupposed impact of consumer behavior regarding the consumption of organic foods on consumer subjective well-being might be led by the fact that well-being is a multidimensional concept encompassing multiple domains of human functioning (Pontin et al., 2013), defined as a state "in which the individual is able to develop in their potential, work productively and creatively, build strong and positive relationships with others, and contribute to their community". It might be assumed that organic consumption is not of the same importance as other areas of consumer life.

The obtained results enabled making an assumption that consumer intentions and behavior regarding organic consumption may not always occur. Therefore, the existence of the impact of consumer environmental awareness on subjective well-being is also possible. The determination coefficient reveals that almost 17 percent of variance in consumer subjective well-being can be explained by factors determining the environmental awareness (i.e., concerns about waste, search for healthy quality, environmental concerns and engagement in organic consumption).

In order to verify the existing relationships, linear regressions were provided (Table 4).

Only three non-significant relationships were obtained during the regression analysis:

- Consumer concerns about waste had no statistically significant influence on consumer intentions;
- Consumer behavior of consuming organic foods had no statistically significant influence on social well-being;
- Consumer concerns about waste had no statistically significant influence on consumer subjective well-being in general.

Table 4. Regression results

Dependent variable	Independent variables	Beta	t	Sig.
INTENT	CAW	0.115	1.963	0.051
	SHQ	0.453	8.583	0.000
	ECE	0.340	6.099	0.000
BEH	INTENT	0.669	13.622	0.000
BEH	CAW	0.202	2.886	0.004
	SHQ	0.240	3.808	0.000
	ECE	0.334	5.036	0.000
WB	BEH	0.252	3.941	0.000
PHYS	BEH	0.355	5.754	0.000
PSYCH	BEH	0.176	2.703	0.007
SWB	BEH	0.127	1.932	0.055
WB	CAW	0.028	0.330	0.742
	SHQ	0.229	3.005	0.003
	ECE	0.219	2.714	0.007

The obtained research results proved the impact of consumer environmental awareness on consumer intentions to consume organic food. More precisely, consumers who tend to search for healthy quality, are environmentally concerned and engaged into pro-environmental behavior, also express higher intentions to consume organic foods. However, as consumer concerns about waste had no statistically significant influence on consumer intentions in this regard, an assumption might be made that consumers do not see the relationship between these activities.

A strong positive influence of consumer intentions on related behavior was detected (Beta coefficient was even 0.669). Moreover, organic consumption-related behavior was found to be driven by all three analyzed determinants of consumer environmental awareness.

Research results indicate that organic consumption-related behavior has a positive influence on consumer subjective well-being, mainly through its physical and psychological states. Non-surprisingly, no statistically significant influence on social well-being was detected, as it is related to consumer social relationships and activities; and organic consumption is more understood as a personal activity.

Finally, a statistically significant influence of consumer environmental awareness on consumer subjective well-being was found. Consumer search for healthy quality and their environmental concerns and engagement results in higher subjective well-being. Once again, same as in the case of intentions, consumer concerns about waste had no statistically significant influence in this regard.

The results of the hypotheses testing are provided in Table 5.

The research results enabled fully substantiating two hypotheses (H2 and H3). The hypotheses H1 and H4 were substantiated partially, mainly because of the absence of influence of consumers' concerns about waste on

Table 5. Results of hypotheses testing

Hypothesis	Supported	Result
H1	Partially	Consumers' search for healthy quality and environmental concerns and engagement in organic consumption has a positive influence on intentions of consuming organic foods Concerns about waste has no statistically significant influence on consumer intentions of consuming organic foods
H2	Supported	Consumer's intentions have a positive influence on the behavior of consuming organic foods
H3	Partially	Consumer's behavior of consuming organic foods has a positive influence on consumer physical and psychological well-being
H4	Partially	Consumer's search for healthy quality and environmental concerns and engagement in organic consumption have a positive influence on subjective well-being Concerns about waste has no statistically significant influence on consumer subjective well-being

their intentions of consuming organic foods nor on the subjective well-being. Latter result regarding consumer attitude towards waste provides a significant insight for the authorities responsible for waste management, and consumer attitude formation in particular. Moreover, the non-existing relationship must be further explored and the appropriate managerial and marketing measures regarding the issue must be determined.

Conclusions

After analyzing the research results, several main findings must be emphasized.

Consumer environmental awareness is an important factor of consumer life, affecting intentions, and resulting in behavior. Moreover, it is evident in consumer physical well-being.

While analyzing influences of different determinants of consumer environmental awareness, there was detected that consumer concerns about waste have no significant influence neither on consumer intentions to consume organic foods, nor on their subjective well-being. Several implications might be envisioned in this result. Firstly, consumers do not relate waste-free (or lower polluted) environment to their well-being. Secondly, consumers do not relate their consumption to pollution. Therefore, proper communication must be provided by the authorities responsible for the environmental management to educate consumers by demonstrating the relationships between waste, health, and well-being.

Consumer intentions regarding the consumption of organic foods positively influence the related behavior. Latter results provide a significant insight for the authorities responsible for consumer pro-environmental behavior. In order to stimulate and support organic consumption, primarily consumer intentions must be addressed. Based on the research results, the best way to influence intentions is through addressing consumer concerns about healthy quality.

Finally, there were detected a statistically significant positive influences of organic consumption related behavior and consumer environmental awareness on subjective well-being in terms of physical well-being and psychological well-being. Thus, raising consumer environmental awareness and their pro-environmental behavior is essential.

As every research, this study was constrained by several limitations. Firstly, the results were analyzed without searching for differences, which might have been caused by gender, age, occupation, income, or other sociodemographic characteristics of consumers. However, such sociodemographic influences might be a strong determinant in this regard. Moreover, the research covered only Lithuanian sample; therefore, it might be assumed that its replication in other country would result in different outcomes.

As the recommended future research directions, replication of the survey in a framework of different country or region is suggested. Moreover, considering the non-significant influence of concerns about waste, consumer perception in this regard must be addressed in other studies. As this research was carried out regarding organic foods only, the impact of green consumption (of the products other than foods) on subjective well-being might also be analyzed.

References

- Branco, T. V. C., Watanabe, E. A. M., & Alfinito, S. (2019). Health consciousness and consumer confidence: A study on the application of the theory of planned behavior in the purchase of organic foods. *Social and Environmental Management Journal (RGSJ)*, 13(1), 2–20.
- Brouhle, K., & Khanna, M. (2012). Determinants of participation versus consumption in the Nordic Swan eco-labeled market. *Ecological Economics*, 73, 142–151. <https://doi.org/10.1016/j.ecolecon.2011.10.011>
- Choi, D., & Johnson, K. K. (2019). Influences of environmental and hedonic motivations on intention to purchase green products: An extension of the theory of planned behavior. *Sustainable Production and Consumption*, 18, 145–155. <https://doi.org/10.1016/j.spc.2019.02.001>
- Demirtas, B. (2018). Assessment of the impacts of the consumers' awareness of organic food on consumption behavior. *Food Science and Technology*, 39(4), 881–888. <https://doi.org/10.1590/fst.10518>
- do Prado, N. B., & Moraes, G. H. S. M. d. (2020). Environmental awareness, consumption of organic products and gender. *Revista de Gestão*, 27(4), 353–368. <https://doi.org/10.1108/REG-11-2019-0120>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175–191. <https://doi.org/10.3758/BF03193146>
- Franzen, A., & Meyer, R. (2010). Environmental attitudes in cross-national perspective: A multilevel analysis of the ISSP 1993 and 2000. *European Sociological Review*, 26(2), 219–234. <https://doi.org/10.1093/esr/jcp018>
- Ganglmair-Wooliscroft, A., & Wooliscroft, B. (2019). Well-being and everyday ethical consumption. *Journal of Happiness Studies*, 20, 141–163. <https://doi.org/10.1007/s10902-017-9944-0>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hsu, S. Y., Chang, C.-C., & Lin, T. T. (2019). Triple bottom line model and food safety in organic food and conventional food in affecting perceived value and purchase intentions. *British Food Journal*, 121, 333–346. <https://doi.org/10.1108/BFJ-07-2017-0403>
- Inglehart, R. et al. (2000). *World values surveys and European values surveys*. Institute for Social Research. <https://www.fss.ulaval.ca/sites/fss.ulaval.ca/files/fss/science-politique/manuel-wvs.pdf>
- Kim, Y. (2019). Organic shoppers' involvement in organic foods: Self and identity. *British Food Journal*, 121(1), 139–156. <https://doi.org/10.1108/BFJ-03-2018-0202>
- Kim, Y., & Choi, S. M. (2005). Antecedents of green purchase behavior: An examination of collectivism, environmental concern, and PCE. *ACR North American Advances*.
- Kotler, P. (2011). Reinventing marketing to manage the environmental imperative. *Journal of Marketing*, 75(4), 132–135. <https://doi.org/10.1509/jmkg.75.4.132>
- Kumar, A., Mangla, S. K., Luthra, S., Rana, N. P., & Dwivedi, Y. K. (2018). Predicting changing pattern: Building model for consumer decision making in digital market. *Journal of Enterprise Information Management*, 31(5), 674–703. <https://doi.org/10.1108/JEIM-01-2018-0003>
- Laureti, T., & Benedetti, I. (2018). Exploring pro-environmental food purchasing behaviour: An empirical analysis of Italian consumers. *Journal of Cleaner Production*, 172, 3367–3378. <https://doi.org/10.1016/j.jclepro.2017.11.086>
- Lee, H. J. (2019). Does consumption of organic foods contribute to Korean consumers' subjective well-being? *Sustainability*, 11(19), 84–96. <https://doi.org/10.3390/su11195496>
- Li, H., Haq, I. U., Nadeem, H., Albasher, G., Alqatani, W., Nawaz, A. A., & Hameed, J. (2020). How environmental awareness relates to green purchase intentions can affect brand evangelism? Altruism and environmental consciousness as mediators. *Revista Argentina de Clínica Psicológica*, 29(5), 811–825.
- Mainieri, T., Barnett, E. G., Valdero, T., Unipan, J. B., & Os-kamp, S. (1997). Green buying: The influence of environmental concern on consumer behavior. *The Journal of Social Psychology*, 137(2), 189–204. <https://doi.org/10.1080/00224549709595430>
- Mai, R., Hoffmann, S., & Balderjahn, I. (2021). When drivers become inhibitors of organic consumption: The need for a multistage view. *Journal of the Academy of Marketing Science*, 49(6), 1151–1174. <https://doi.org/10.1007/s11747-021-00787-x>

- Novotny, R., Huttmanova, E., Kalistova, A., Steiner, M. J. F., Ramharter, P. M., Benko, M., & Salabura, D. (2021). Assessment of the impact of personality characteristics on the environmental awareness. *Polish Journal of Management Studies*, 26(1), 217–232. <https://doi.org/10.17512/pjms.2022.26.1.14>
- Pilelienė, L., & Tamulienė, V. (2021). Consumer attitudes and behavior towards organic products: Evidence from the Lithuanian market. *Journal of Entrepreneurship, Management and Innovation*, 17(1), 269–299. <https://doi.org/10.7341/20211719>
- Pontin, E., Schwannauer, M., Tai, S., & Kinderman, P. (2013). A UK validation of a general measure of subjective well-being: The modified BBC subjective well-being scale (BBC-SWB). *Health and Quality of Life Outcomes*, 11, 150. <https://doi.org/10.1186/1477-7525-11-150>
- Qi, X., & Ploeger, A. (2019). Explaining consumers' intentions towards purchasing green food in Qingdao, China: The amendment and extension of the theory of planned behavior. *Appetite*, 133, 414–422. <https://doi.org/10.1016/j.appet.2018.12.004>
- Sarkis, J., Zhu, Q., & Lai, K. H. (2011). An organizational theoretic review of green supply chain management literature. *International Journal of Production Economics*, 130(1), 1–15. <https://doi.org/10.1016/j.ijpe.2010.11.010>
- Shen, M., & Wang, J. (2022). The impact of pro-environmental awareness components on green consumption behavior: The moderation effect of consumer perceived cost, policy incentives, and face culture. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.580823>
- Tamulienė, V., Kazlauskienė, E., & Pilelienė, L. (2016). Ecologically-conscious consumer purchases in Lithuania. *Montenegrin Journal of Economics*, 12(4), 87–96.
- White, K., Habib, R., & Hardisty, D. J. (2019). How to SHIFT consumer behaviors to be more sustainable: A literature review and guiding framework. *Journal of Marketing*, 83(3), 22–49. <https://doi.org/10.1177/0022242919825649>
- Zhang, L., & Zuo, B. (2007). Self-fulfilling happiness: A review of psychological well-being research. *Progress in Psychological Science*, 15(01).
- Zhao, C., & Wei, H. (2019). The highest hierarchy of consumption: A literature review of consumer well-being. *Open Journal of Social Sciences*, 7(4), 135–149. <https://doi.org/10.4236/jss.2019.74012>
- Zsóka, A., Szerényi, Z.M., Széchy, A., & Kocsis, T. (2013). Greening due to environmental education? Environmental knowledge, attitudes, consumer behavior and everyday pro-environmental activities of Hungarian high school and university students. *Journal of Cleaner Production*, 48, 126–138. <https://doi.org/10.1016/j.jclepro.2012.11.030>