

Article

Sustainability and Consumer Behavior in Electronic Commerce

Lenka Štofejová * , Štefan Král' , Richard Fedorko , Radovan Bačík and Mária Tomášová

Department of Marketing and International Trade, Faculty of Management and Business, University of Prešov in Prešov, Konštantínova 16, 080 01 Prešov, Slovakia; stefan.kral@smail.unipo.sk (Š.K.); richard.fedorko@unipo.sk (R.F.); radovan.bacik@unipo.sk (R.B.); maria.tomasova@smail.unipo.sk (M.T.)

* Correspondence: lenka.stofejova@unipo.sk

Abstract: Environmental awareness among consumers is on the rise as they are starting to prefer sustainable products and services. The aim of this research was to examine the relationships between consumer behavior when shopping online for green products and the factors that influence it from the point of view of sustainability. Primary data were obtained using a questionnaire survey and subsequently processed using descriptive analysis, confirmatory factor analysis and structural equation modeling. The obtained research results showed that Digitization in Green Marketing has a significant impact on Environmental Attitude, and that aspects like Environmental Attitude, Environmental Oriented Lifestyle, Willingness to Pay for Green Products and Subjective Norms have a significant impact on Environmental Purchasing Behavior. Moreover, the study found that the factors Environmental Oriented Lifestyle, Willingness to Pay for Green Products, Subjective Norms and Environmental Purchasing Behavior have a significant impact on Future Purchase Intention. The research results can help online retailers in planning and implementing green marketing strategies not only in sales but also in other business processes. In order to stay competitive, businesses should be able to respond promptly to changes in consumer behavior trends, while it is undeniable that the aspect of sustainability plays an increasingly important role here.

Keywords: sustainability; purchasing behavior; consumer behavior; electronic commerce; e-commerce; online shopping



Citation: Štofejová, L.; Král', Š.; Fedorko, R.; Bačík, R.; Tomášová, M. Sustainability and Consumer Behavior in Electronic Commerce. *Sustainability* **2023**, *15*, 15902. <https://doi.org/10.3390/su152215902>

Academic Editor: Riccardo Testa

Received: 20 October 2023

Revised: 8 November 2023

Accepted: 10 November 2023

Published: 14 November 2023



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1. Introduction

Consumers are currently paying a lot of attention to green products and sustainability issues to reduce negative impacts on the environment and health. Green marketing is a natural consequence of the growing interest of society in the environment in Europe. It is part of a company's strategy to meet the requirements of customers and stakeholders, as well as organizational and legal requirements. It has become more popular precisely because of the growing importance of environmental sustainability. The commitment of businesses to improve the environment and consumer support of these efforts through the purchase of green products is the key to the future of green marketing [1,2]. Currently, according to the Environmental Performance Index, Europe is the leader in promoting green marketing—with Denmark, Great Britain and Finland leading the way [3]. Businesses and consumers are gradually becoming aware of the limitations of natural resources and the vulnerability of nature, and these views are also reflected in their purchasing behavior [4]. Environmentally friendly companies increasingly prioritize the well-being of the planet and future generations over short-term profits. In addition to producing green products, businesses are increasingly implementing tactics to create a business strategy that utilizes green marketing principles. With regard to sustainability and environmental protection, e-commerce is the most suitable alternative for both sellers and consumers. With the development of information and communication technologies, the onset of the so-called digital economy and the increase in Internet use have also made e-commerce accessible to many businesses and consumers [5,6]. The popularity of online shopping has grown

significantly over recent years, and retail experts say online shopping will soon replace traditional brick-and-mortar shopping [7].

Many consumers are not willing to change their consumer behavior, and therefore the task of green marketing is to make the consumer perceive green products and services as a normal part of life. Therefore, green marketing is considered to be “initiative”. When used to describe a marketing strategy, initiative means that the strategy does not use aggressive forms of promotion. Instead, it comes up with an offer of eco-friendly products and services, and invites people to buy these and change their lifestyle in a non-violent way. Green marketing is also “integrative” as it brings together technology, trade, social and environmental aspects while striving for economic as well as social and environmental development. Green marketing is considered “innovative” due to the fact that the production processes it promotes rely on new methods of production, packaging, sales and shipping. To promote its products or services, green marketing uses new communication channels in a very creative way. Green marketing is also described as “informative (informed)” as it provides users with information, and is direct, honest and truthful [8]. When talking about green marketing initiative, the term green marketing mix is appropriate. The production, use and disposal of green products are more environmentally friendly and gentle compared to the production, use and disposal of conventional products. Eco-friendly retailers prefer to use eco-friendly materials, obtain resources from local suppliers and fair-trade suppliers, and reduce the negatives their production processes may have on the environment [9,10]. In the past, the higher price of green products was a limiting factor for sales growth. However, nowadays prices of eco-friendly products are decreasing thanks to the growing awareness of the need to protect the environment. Nevertheless, prices of green products and services remain higher than prices of regular products, as the target groups are willing to pay extra for having an eco-friendly product [11,12]. Many businesses sell products online, thus reducing their operating costs. Online shopping not only saves money (as consumers do not have to visit stores in person) but also provides unmatched convenience. The Internet can therefore be called a green place. Retailers also offer environmentally friendly delivery and payment methods [13]. Green promotion advocates for the use of environmentally friendly promotional materials (online communication tools being considered the most effective in this regard) [14]. Some customers are willing to pay extra for green packaging. With that in mind, brands use less packaging material, and often opt for energy-saving packaging, recyclable cardboard boxes and paper fillings [15]. With that in mind, retailers further develop and implement the strategies referred to above to strengthen their brand identity and credibility, and increase sales, while striving for honest, truthful communication and ensuring transparency [16,17].

While a significant number of people express concerns for the environment and show a willingness to choose eco-friendly products and services, their good intentions frequently fail to materialize into meaningful actions. A lack of essential knowledge or motivation often hinders them from making sustainable choices, which is clearly reflected in their consumer behavior. It often happens that the consumers themselves lack the determination to engage in responsible (sustainable) behavior—also referred to as “attitude–behavior gap” [18,19]. The most important factors influencing the attitude–behavior gap include the higher price of green products, the difficulty in differentiating between green products, the lack of information about the environmental impact of the given product (in the product description) or the lack of trust in the ecolabels (as identified in previous research). Moreover, some consumers do not see the connection between their own behavior and the negative impact of their actions on the environment [20–24]. Shabani et al. [25] states that the green consumer is a consumer who emphasizes environmental protection not only when purchasing products but also in all activities related to the consumption of these products. Green consumers are divided into five segments. True Blue Greens are most focused on buying environmentally friendly products and actively participate in activities that support environmental protection. Green Back Greens are interested in purchasing organic products, but do not actively participate in activities supporting environmental

protection. Sprouts support environmental laws and regulations, but are not willing to use their finances to purchase products that are environmentally friendly. Grouzers express reservations about the quality of organic products and are reluctant to allocate additional funds for environmentally friendly products. Basic Browns are preoccupied with daily matters and show little interest in environmental and social issues. As part of a targeted green marketing strategy, the degree of “greenness” is an important characteristic in market segmentation. Different consumers have different levels of interest in environmental issues. Companies can choose different green marketing strategies to target their consumers.

With regard to sustainability and environmental protection, e-commerce is the most suitable alternative. E-commerce boasts several advantages in this regard as it allows retailers to sell products on the global market, reduces costs, enables faster and more efficient order fulfilment, facilitates marketing research, enables online transactions, and allows for a greater flexibility when responding to the market situation and consumer demands. E-commerce brings advantages to consumers, too, like price comparison, convenience when shopping, 24/7 accessibility, lots of information and a wide range of products and brands, time savings and minimum pressure from retailers being the most notable ones [26–29]. Consumers today tend to be more discerning when shopping for products online and prefer e-commerce businesses that implement sustainable strategies and practices. Consumers have enough time to think about the purchase and have the opportunity to find out information about the eco-friendliness of the given product. Online grocery shopping is also gaining in popularity nowadays, and it has been shown that consumers are willing to pay more for fair trade or organic food. Zero waste stores are gaining in popularity, too [30–32]. According to Arreza [33], up to 90% of consumers who attended a survey in Australia said they were more likely to buy a product if it was sustainable. Results of a survey of Internet users in the US and Great Britain showed that 60% of people are willing to pay more for eco-friendly products [34]. Willingness to pay more for organic products is higher among younger consumers, indicating that older consumers do not tend to purchase organic products regularly [35,36]. It is Generation Z that is considered to be more concerned about the environment, to show more eco-friendly behavior and to be willing to pay more for green products [37,38]. The portal Firstinsight [39] states that most young consumers prefer to buy from sustainable brands and are willing to spend more on them by an average of 10%. Moreover, the portal also states that young consumers are influenced by hedonic, i.e., personal, social, and environmental principles and values when shopping. A recent survey by E-commerce Delivery Compass [40] found that more than half of online shoppers prefer brands that care about sustainability and environmental protection. For example, 52% of European consumers prefer an e-shop guaranteeing eco-friendly delivery. When shopping online, Generations Y and Z in particular are interested in the packaging. Consumer demand for more sustainable packaging alternatives is on the rise [41–44]. A 2019 survey by McKinsey & Company [45] showed that 66% of consumers, including 75% of Millennials, said that they pay attention to sustainability when shopping. According to a LendingTree Group’s [46] survey of 1048 Americans, 55% of them are willing to spend more on sustainable and green products. The results of a global analysis by the Economist Intelligence Unit [47], commissioned by the World Wildlife Fund, which included 54 countries, showed a 71% increase in international searches for sustainable products on the Internet over the past 5 years. The demand for green products has increased especially in countries with high incomes—e.g., in the US, searches for sustainable products on Google increased by an incredible 450% between 2016 and 2018. This trend can also be observed in developing countries.

When shopping online, consumers pay attention not only to value for money, customer service and fast and trouble-free delivery [48–51], but to sustainability, too. Consumers are also increasingly concerned about the impact their purchase will have on the environment. Previous research points to the fact that many consumers today are changing their attitudes towards the issue of environmental protection. These environmental attitudes subsequently influence their purchasing decisions and behavior [52–54]. Some consumers even

consider sustainability a part of their lifestyle. Cuc et al. [53] found in their research that an environmental-oriented lifestyle can influence the purchasing behavior of consumers. Consumers are largely influenced by people they are surrounded by when shopping for green products. They consider green behavior a modern way of life and like to share moments from their environmental-oriented lifestyle on social media to gain recognition from others. Consumers are interested in buying brands that also reflect their social status. Social, peer and media pressure represent the so-called subjective norms, and are significant factors in purchasing green products [55–57]. Previous studies point to the importance of identifying relevant factors influencing green product purchase intention [18,58,59]. E-commerce provides new opportunities for more sustainable ways of shopping. The key aspect in the transition to more sustainable shopping is consumers. E-commerce is an industry that is ultimately driven by satisfying and anticipating consumer needs. It is therefore essential that the digital commerce sector adapts to the rapidly changing behavior and expectations of consumers, also regarding the aspect of sustainability [60]. From a marketing point of view (in particular the marketing strategies of planning and targeting), it is necessary to study the factors that influence the online shopping behavior of consumers in order to better understand their behavior patterns [61,62].

2. Materials and Methods

To explore the issue of the “attitude–behavior gap” in terms of environmental sustainability and online shopping, the aim of the research was to examine the relationships between consumer behavior when shopping for green products online and the factors that influence this behavior from the point of view of sustainability. So, the research question is: what are the relationships between sustainable online shopping and factors that influence it? To meet the research aim, the following research tasks were proposed:

- To create a research tool and verify its internal factor structure;
- To examine the relationships between the investigated factors and consumer behavior when shopping for green products online.

Given the theoretical basis of the researched issue and previous research in the given area, the research model showing the investigated variables and their possible impact was proposed (Figure 1). The following hypotheses were also formulated:

H1. *We assume a statistically significant effect of Digitization in Green Marketing on Environmental Attitude.*

H2. *We assume a statistically significant effect of Environmental Attitude on Environmentally Oriented Lifestyle.*

H3. *We assume a statistically significant effect of Environmental Attitude on Environmental Purchasing Behavior.*

H4. *We assume a statistically significant effect of Environmental Oriented Lifestyle on Environmental Purchasing Behavior.*

H5. *We assume a statistically significant effect of Subjective Norms on Environmental Purchasing Behavior.*

H6. *We assume a statistically significant effect of Willingness to Pay for Green Products on Environmental Purchasing Behavior.*

H7. *We assume a statistically significant effect of Subjective Norms on Future Purchase Intention.*

H8. *We assume a statistically significant effect of Environmental Oriented Lifestyle on Future Purchase Intention.*

H9. We assume a statistically significant effect of Willingness to Pay for Green Products on Future Purchase Intention.

H10. We assume a statistically significant effect of Environmental Purchasing Behavior on Future Purchase Intention.

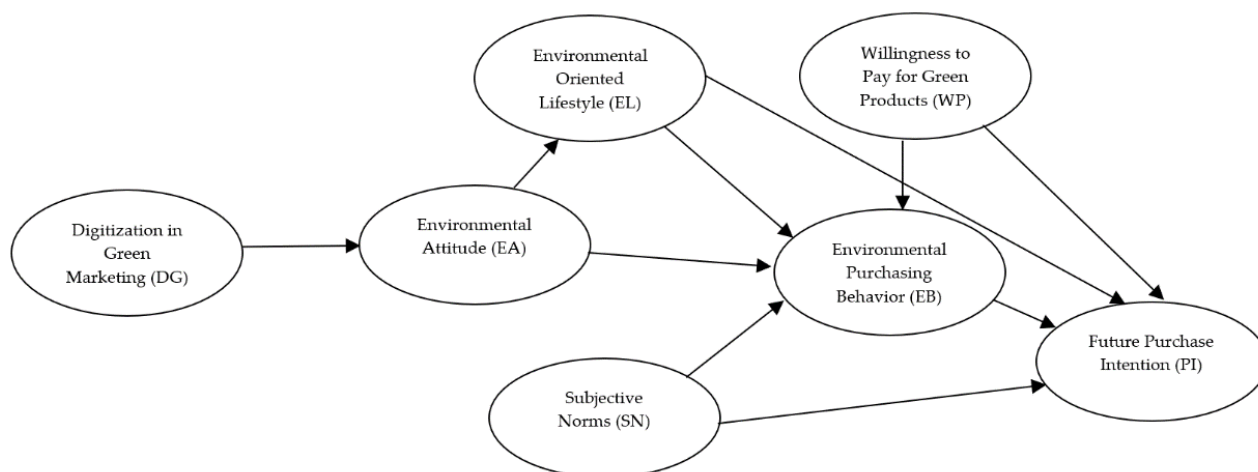


Figure 1. Proposed research model.

Secondary data were obtained from previous research and available statistics. Primary data were collected through the narrative inquiry method. The research sample consists of online consumers. The research made use of the non-probability sampling method and convenience sampling [63]. The questionnaire was generated using Google Forms and shared with participants via email and various social media platforms. The research was conducted between November 2022 and February 2023. Completing the questionnaire required 10 to 15 min. The initial section of the questionnaire included 6 socio-demographic questions covering gender, year of birth, educational level, region of residence, economic status and monthly income. The respondents were asked to express their level of agreement or disagreement with questionnaire items regarding their environmental attitudes, standards, lifestyle and behavior in terms of shopping for green products online. Individual questionnaire items are listed in Table 1. These items were designed as closed items and were evaluated on a Likert scale (ranging from strongly disagree (1) to strongly agree (7)).

Table 1. Research variables.

Item ID	Item
DG1	I believe that green marketing makes use of online advertising to reduce paper-based advertising and promotional materials [64].
DG2	I believe that green marketing promotes e-commerce because it is more environmentally friendly [64].
DG3	I believe that green marketing uses digital tools to communicate with consumers because they are environmentally friendly [64].
EA1	I am interested in environmental issues [52].
EA2	I consider myself a green consumer [52].
EA3	Protecting the environment is always a priority for me when shopping online [53].
EA4	Environmental friendliness of the materials used in the production of products I buy online is important for me [53].
EA5	Online shopping makes me feel that I am acting responsibly towards the environment [54].
EA6	Online shopping is more eco-friendly than shopping in a brick-and-mortar store [54].

Table 1. Cont.

Item ID	Item
EB1	When shopping online, I only buy green products [53].
EB2	When shopping online, I purchase from retailers who care about the environment [54].
EB3	Buying green products online makes me feel like a green consumer [52].
EB4	I feel good when shopping for green products online [52].
WP1	I am willing to pay extra for green products [65].
WP2	I will always prefer a product with a higher price if it is eco-friendly [65].
WP3	I am proud to pay a higher price for green products [65].
WP4	By paying a higher price for green products, I feel I'm helping the planet [65].
EL1	I lead an environmental oriented lifestyle [53].
EL2	I believe that a healthy and clean environment has a major impact on my health [53].
EL3	I believe that a healthy and clean environment has a fundamental impact on the society [53].
EL4	I believe that a healthy and clean environment has a fundamental impact on future generations [53].
PI1	In the future, when shopping online, I am determined to give up those products that are not green [54].
PI2	In the future, I am determined to buy only green products online [54].
PI3	In the future, I will recommend online shopping for green products to acquaintances [54].
PI4	In the future, I intend to buy green products online more often than today [66].
PI5	I believe that I will become more interested in shopping for green products online in the future [66].
SN1	I buy green products online because many of my acquaintances also buy green products online [66].
SN2	People who are important to me think I should buy green products online [66].
SN3	Mass media (e.g., TV, radio, newspapers, internet) influence my decision to buy green products online [67].
SN4	I would buy green products online more often if people around me did the same [67].
SN5	Online shopping for green products is currently trending [67].

Note: DG—Digitization in Green Marketing; EA—Environmental Attitude; EB—Environmental Purchasing Behavior; WP—Willingness to Pay for Green Products; EL—Environmental Oriented Lifestyle; PI—Future Purchase Intention; SN—Subjective Norms.

In total, 593 respondents took part in the research. After excluding invalid responses, the research sample consisted of 565 respondents, of whom 29.4% were men and 70.6% women. In terms of educational attainment, respondents with secondary education prevailed (55.6%). In terms of social status, the majority were students (63.9%). A proportion of 58.4% of respondents had a monthly income of up to 500 euros. The youngest respondent was 18 years old and the oldest respondent was 66 years old, while the average age was 26.5 years. Most respondents were respondents of Generation Y and Generation Z (93.5%).

The research made use of analyses described below. To verify the significance of the internal factor structure, confirmatory factor analysis (CFA) was employed. The results of the factor analysis were evaluated using four fit indices: root mean square error of approximation (RMSEA) with 90% confidence intervals, where values ≤ 0.06 indicate good fit; standardized root mean square residual (SRMR), where values ≤ 0.08 indicate good fit; and comparative fit index (CFI) and Tucker–Lewis index (TLI), where values exceeding 0.95 indicate good fit [68]. For the internal consistency reliability analysis Cronbach's Alpha coefficient was calculated. We extended the internal consistency reliability analysis by calculating the 95% confidence intervals using the bias-corrected and accelerated percentile bootstrap method with 1000 iterations [69]. According to Kline [70], critical values for reliability coefficients are evaluated as follows: ≥ 0.7 adequate internal consistency of answers; ≥ 0.8 very good internal consistency of answers; ≥ 0.9 excellent internal consistency of answers. According to Hair et al. [71], values > 0.7 are considered adequate. We also investi-

gated composite reliability (CR), whose values should be >0.7 [71]. The convergent validity was evaluated by examining whether the average variance extracted (AVE) values should be above 0.5 which would mean that the items adequately reflect the constructs [72]. The predicted effects were verified using structural equation modeling (SEM) [73], where the variables were made up of factors that achieved a sufficient degree of reliability and factor loadings. The statistical program IBM SPSS Statistics 26, JASP 0.17.1.0 and programming language R 4.0.2 were used to process the obtained data.

3. Results

It is possible to consider the fit of the CFA model to be adequate, with RMSEA = 0.061, SRMR = 0.083, CFI = 0.973 and TLI = 0.969 all meeting the standard cutoff values. The chi-square test statistic was 1897.732 at the p -value 0.000. Overall, our results suggest that the factor structure describes our data reasonably well. With regard to factor loadings, Hair et al. [72] state that, for a sample size greater than 250 observations, the value of factor loadings can be considered significant if it is higher than 0.35. All loadings were significant at $p < 0.05$. Also, all factor loadings were higher than 0.50 and are shown with p -values in Table 2. Cronbach's α ranged from 0.812 (Subjective Norms) to 0.912 (Future Purchase Intention) and is also shown in Table 2. AVE ranged from 0.510 (Environmental Attitude) to 0.731 (Digitization in Green Marketing) and for all factors they were higher than the threshold value of 0.5. The CR values were in all cases higher than the threshold value of 0.7. Table 2 also contains mean, median and standard deviation of researched items.

Table 2. Indicators for CFA model and descriptive analysis of the model.

Factor	Item ID	Mean _{item}	Median _{item}	SD _{item}	p -Value	Loading	Cronbach's α (95% CI)	AVE	CR
Digitization in Green Marketing	DG1	5.205	5	1.519	0.000	0.840	0.890 (0.865–0.912)	0.731	0.891
	DG2	5.076	5	1.594	0.000	0.867			
	DG3	5.129	5	1.564	0.000	0.858			
Environmental Attitude	EA1	5.101	5	1.544	0.000	0.595	0.841 (0.816–0.862)	0.510	0.859
	EA2	4.227	4	1.507	0.000	0.742			
	EA3	3.804	4	1.664	0.000	0.807			
	EA4	3.798	4	1.699	0.000	0.760			
	EA5	3.432	3	1.760	0.000	0.764			
	EA6	3.851	4	1.719	0.000	0.575			
Environmental Purchasing Behavior	EB1	2.786	2	1.648	0.000	0.669	0.830 (0.803–0.856)	0.547	0.827
	EB2	3.050	3	1.719	0.000	0.658			
	EB3	3.696	4	1.784	0.000	0.783			
	EB4	3.710	4	1.851	0.000	0.834			
Willingness to Pay for Green Products	WP1	3.745	4	1.826	0.000	0.810	0.855 (0.831–0.876)	0.605	0.859
	WP2	3.531	4	1.719	0.000	0.826			
	WP3	3.136	3	1.740	0.000	0.800			
	WP4	3.802	4	1.778	0.000	0.666			
Environmental Oriented Lifestyle	EL1	4.296	4	1.484	0.000	0.932	0.851 (0.824–0.874)	0.511	0.798
	EL2	5.671	6	1.432	0.000	0.606			
	EL3	5.480	6	1.505	0.000	0.739			
	EL4	5.896	6	1.438	0.000	0.506			
Future Purchase Intention	PI1	3.669	4	1.615	0.000	0.774	0.912 (0.897–0.924)	0.675	0.911
	PI2	3.379	3	1.714	0.000	0.839			
	PI3	3.766	4	1.701	0.000	0.897			
	PI4	4.285	4	1.702	0.000	0.819			
	PI5	4.582	5	1.647	0.000	0.772			
Subjective Norms	SN1	2.899	3	1.657	0.000	0.813	0.812 (0.838–0.836)	0.577	0.817
	SN2	2.910	3	1.677	0.000	0.757			
	SN3	3.373	3	1.861	0.000	0.683			
	SN4	3.512	4	1.790	0.000	0.601			
	SN5	4.654	5	1.670	0.000	0.568			

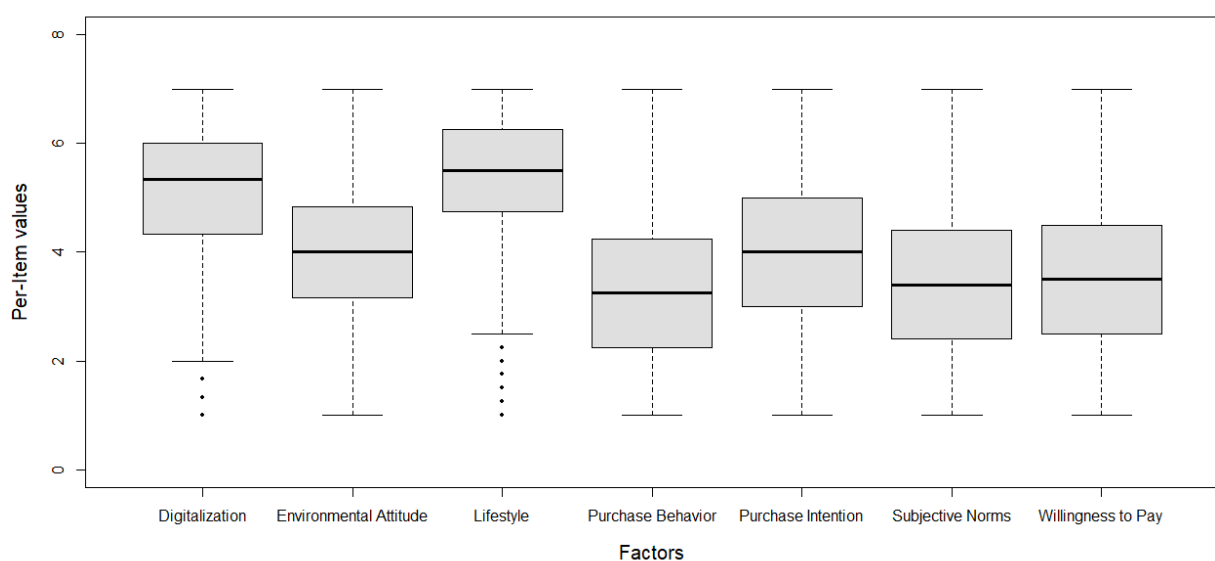
Note: DG—Digitization in Green Marketing; EA—Environmental Attitude; EB—Environmental Purchasing Behavior; WP—Willingness to Pay for Green Products; EL—Environmental Oriented Lifestyle; PI—Future Purchase Intention; SN—Subjective Norms; SD—Standard Deviation; CI—Confidence Interval; AVE—Average Variance Extracted; CR—Composite Reliability.

Correlations of latent factors are shown in Table 3. All investigated factors correlated with each other. The correlations within the latent factors were at the level $p < 0.01$ and ranged from small to large.

Table 3. Correlations within the latent factors.

Factor	Environmental Attitude	Environmental Purchasing Behavior	Willingness to Pay for Green Products	Environmental Oriented Lifestyle	Future Purchase Intention	Subjective Norms
Digitization in Green Marketing	0.461	0.352	0.316	0.447	0.375	0.318
Environmental Attitude		0.911	0.757	0.548	0.762	0.658
Environmental Purchasing Behavior			0.855	0.435	0.845	0.773
Willingness to Pay for Green Products				0.484	0.851	0.753
Environmental Oriented Lifestyle					0.558	0.282
Future Purchase Intention						0.800

The basic descriptive statistics of the per-item factor scores are provided in Figure 2. The results suggest that, within our research sample, it is possible to observe differences between the means of the per-item factor scores, medians and variability. As part of the evaluation of Environmental Attitudes, women showed a higher degree of agreement. When evaluating Digitization in Green Marketing, the average responses were balanced in terms of gender. With regard to Environmental Purchasing Behavior and Environmental Oriented Lifestyle, the average answers were also balanced in terms of gender. As far as the Subjective Norms variable is concerned, the average answers reached a relatively low value and were also gender balanced. Women are more willing to pay more for green products but the mean values were not high, which generally indicates that consumers do not tend to pay more for sustainability. Regarding Future Purchase Intention, women showed a higher level of agreement. However, despite a higher degree of agreement with Environmental Attitudes, an Environmental Oriented Lifestyle or Future Purchase Intention, the values of agreement with questionnaire items regarding Environmental Purchasing Behavior were relatively low, which indicates the existence of the aforementioned “attitude–behavior gap”.

**Figure 2.** Boxplot of descriptive statistics of per-item factor scores.

Based on the results of the previous analyses, a model was constructed using the SEM method to quantify the relationships between the investigated factors. The scheme of the

SEM model was defined by the principle of path weighting scheme. The SEM was used for its advantages in accounting for all covariance in the data, allowing the simultaneous analysis of correlations, shared variance, path coefficients and their significance when testing for the main effects [74]. Table 4 shows the relationships of the investigated factors, as well as the estimation of individual trajectories.

Table 4. Output of SEM.

Path	Estimate	Std. Error	<i>p</i> -Value	Lower CI (95%)	Upper CI (95%)	Hypothesis
DG → EA	0.444	0.085	<0.001	0.270	0.600	H1 Supported
EA → EL	0.267	0.048	<0.001	0.175	0.364	H2 Supported
EA → EB	0.998	0.118	<0.001	0.803	1.262	H3 Supported
EL → EB	−0.220	0.135	0.051	−0.485	0.026	H4 Supported
SN → EB	0.566	0.203	<0.003	0.224	1.011	H5 Supported
WP → EB	0.465	0.087	<0.001	0.290	0.635	H6 Supported
SN → PI	0.498	0.091	<0.001	0.291	0.665	H7 Supported
EL → PI	0.637	0.116	<0.001	0.391	0.881	H8 Supported
WP → PI	0.459	0.084	<0.001	0.297	0.618	H9 Supported
EB → PI	0.841	0.021	<0.001	0.799	0.881	H10 Supported

Note: DG—Digitization in Green Marketing; EA—Environmental Attitude; EB—Environmental Purchasing Behavior; WP—Willingness to Pay for Green Products; EL—Environmental Oriented Lifestyle; PI—Future Purchase Intention; SN—Subjective Norms.

Based on the above results, it can be concluded that all trajectories are statistically significant at the $p < 0.01$ level, except for the EL → EB trajectory, which is statistically significant at the $p < 0.10$ level. Figure 3 shows the intensity of the impact of the structural model's individual factors.

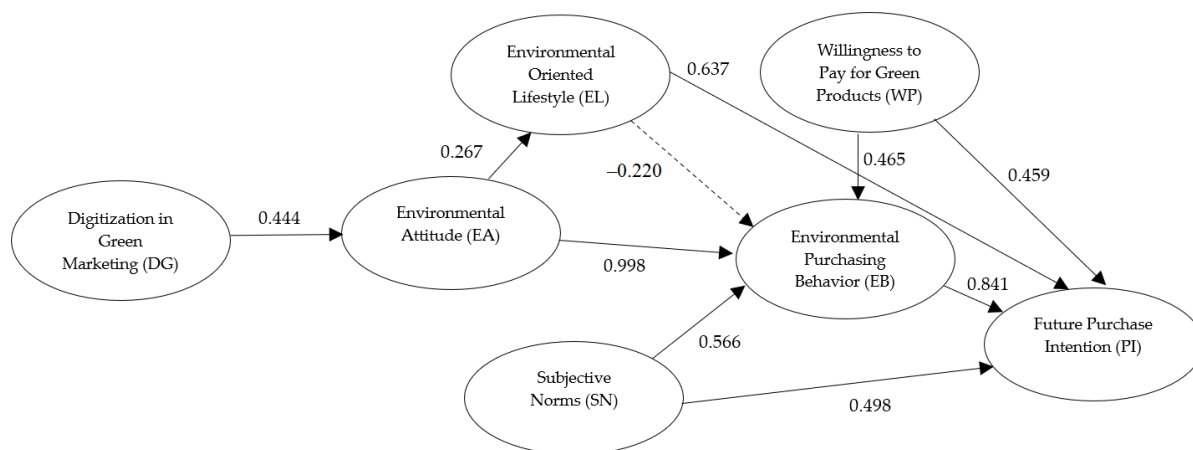


Figure 3. Visualization of the influence of the structural model based on the output of SEM.

The results of structural equation modeling proved that Digitization in Green Marketing has a statistically significant impact on Environmental Attitude, with the Environmental Attitude showing a statistically significant impact on Environmental Oriented Lifestyle, too. The impact of Environmental Attitude, Environmental Oriented Lifestyle, Subjective Norms and Willingness to Pay for Green Products on Environmental Purchasing Behavior was also demonstrated. Future Purchase Intention was significantly influenced by Subjective Norms, Environmental Oriented Lifestyle, Willingness to Pay for Green Products and Environmental Purchasing Behavior. The basic criterion for evaluating the structural model is the coefficient of determination (R^2). According to the coefficient of determination (R^2), the explanatory power of the EA factor can be described as strong (0.88), the EL factor as medium (0.30), the EB factor as strong (0.71) and the PI factor as strong (0.68).

4. Discussion

The aim of the research was fulfilled by fulfilling partial research tasks. Given previous research, it was possible to design a working research tool and at the same time to confirm the significance of its internal factor structure. Significance was demonstrated for all investigated factors, namely Digitization in Green Marketing, Environmental Attitude, Environmental Oriented Lifestyle, Willingness to Pay for Green Products, Subjective Norms, Environmental Purchasing Behavior and Future Purchase Intention. Given the above, the first partial research task was resolved. Furthermore, the research aimed at examining the relationships between the investigated factors and consumer behavior when shopping for green products online. This research task was resolved by employing structural equation modeling. The research proved that Digitization in Green Marketing has a statistically significant impact on Environmental Attitude. It was found that Environmental Attitude has a statistically significant impact on Environmental Oriented Lifestyle. The variables Environmental Attitude, Environmental Oriented Lifestyle, Subjective Norms and Willingness to Pay for Green Products were shown to have a statistically significant impact on Environmental Purchasing Behavior. Subjective Norms, Environmental Oriented Lifestyle, Willingness to Pay for Green Products and Environmental Purchasing Behavior were shown to have a statistically significant impact on Future Purchase Intention. Given the above facts, it could be concluded that the second partial research task has been resolved.

As part of the evaluation of Environmental Attitudes, women showed a higher degree of agreement. The same results were observed also for the variables Future Purchase Intention and Willingness to Pay for Green Products. For the variable Willingness to Pay for Green Products, the mean values were relatively low, which generally indicates that consumers do not tend to pay more for sustainability. Relevant studies point to the fact that consumers are not willing to change their consumption behavior or pay more for green products [75–77]. On the other hand, other studies have identified consumers' willingness to pay for sustainable alternatives [43,44,78–80]. This ambiguity in the results points to the fact that further research in this issue is needed. The mentioned studies also point to the existence of a significant impact that Willingness to Pay for Green Products has on Environmental Purchasing Behavior and Future Purchase Intention.

When evaluating Digitization in Green Marketing, the average responses were balanced in terms of gender and consumers expressed a relatively high level of agreement with these variables, which is in line with notable research by Papadas [64]. Selected studies indicate that consumers who have knowledge about environmental issues are more likely to purchase green products online compared to consumers who are not aware of environmental issues. Environmental awareness and concerns are influencing consumer attitudes towards green products, and more and more consumers believe it is the responsibility of the government and online retailers to follow green practices [81,82]. Thanks to digitalization in green marketing, businesses can help consumers uphold their pro-environmental attitudes and encourage them to be eco-friendly by buying green products online. In this way, businesses can stand out from the competition, improve their credibility in the market, acquire new customers, increase customer trust and loyalty, ensure long-term growth, implement innovations, and reach higher returns [83]. With regard to the variables Environmental Purchasing Behavior and Environmental Oriented Lifestyle, the average responses were also gender balanced and consumers expressed a relatively high level of agreement with these variables. For the variable Subjective Norms, consumers reported a relatively low level of agreement. However, the impact of this variable on Environmental Purchasing Behavior and Future Purchase Intention was proven. These findings are consistent with several studies that pointed to the significant impact of Subjective Norms on Environmental Purchasing Behavior and Future Purchase Intention of consumers [84–88]. Thakur and Gupta [89] identified online retailers' promotional incentives as the main determinants of consumers' pro-environmental attitudes. Previous studies have shown that consumers' attitude towards purchasing green products online is influenced by brand name, convenience and price [90], lifestyle and values [91,92], and also subjective norms [93,94].

Despite the higher degree of agreement with Environmental Attitudes, Environmental Oriented Lifestyle and Future Purchase Intention, the values of agreement with questionnaire items regarding Environmental Purchasing Behavior were relatively low, which indicates the existence of the above-mentioned “attitude–behavior gap”. Several previous studies researching factors influencing the shopping behavior of consumers have shown that the most significant determinant of purchasing intention and environmental purchasing behavior is the environmental attitudes of consumers. On the other hand, these studies also pointed out the existence of the “attitude–behavior gap”, as, despite increasing positive environmental attitudes, consumers’ intentions to buy green products do not increase proportionally to intentions declared [18,58,59,95–97]. This is consistent with the results of our research.

One of the means to reduce this gap is the effective communication strategy regarding environmental issues. Some consumers feel responsible for the state the environment is in, which is also reflected in their needs and expectations. However, these consumers are not motivated to take any action. Businesses with environmental initiatives are able to gain the trust and loyalty of likeminded consumers. If retailers wish to acquire such customers, they should pay attention to sustainability (when selecting the assortment, in production, packaging, sales, transport and, finally, in the choice of communication strategy) [98–103]. The popularity of online shopping continues to grow, which presents retailers with a unique opportunity to implement sustainability initiatives into their businesses. Retailers with well-designed websites find it easier to present information about their products and services. E-stores can provide additional product information, and present it in a way that does not take much time or effort on the part of the consumer, and can be customized based on the preferences and behavior analysis of the specific consumer [104]. This also points to the fact that using green marketing in e-commerce is a key factor to success, not only in commercial terms (better customer relations, higher profits and competitive advantage), but also in terms of environmental protection and social impact thanks to sustainable production and related processes. These initiatives help improve and rebuilt the natural ecosystem and ultimately increase the quality of life of consumers [105,106]. The e-commerce sector is a bridge between the digitalization of society and the transition to a more sustainable economy. It is an industry that is rapidly evolving, and is shaped by new technologies and new ambitions, ideas and demands, all of which promote innovative yet sustainable solutions. The expansion of e-commerce should be seen as an opportunity for a structural shift towards more sustainable retail and consumer practices, as well as a significant opportunity for business entities to take advantage of the digitization of society on the journey towards a more sustainable economy [60].

5. Conclusions

The “green” trend is growing, and consumers are increasingly aware of environmental issues and the role e-commerce plays in saving the environment. More and more consumers prefer green products and services, and e-commerce is an important element in this regard. The aim of this research was to examine the relationships between consumer behavior in shopping online for green products and the factors that influence this behavior in the context of sustainability. Factors like Digitization in Green Marketing, Environmental Attitude, Environmental Oriented Lifestyle, Willingness to Pay for Green Products, Subjective Norms, Environmental Purchasing Behavior and Future Purchasing Intention were investigated. The research results showed that Environmental Attitude, Environmental Oriented Lifestyle, Willingness to Pay for Green Products and Subjective Norms have a significant impact on Environmental Purchasing Behavior. A significant impact of the factors Environmental Oriented Lifestyle, Willingness to Pay for Green Products, Subjective Norms and Environmental Purchasing Behavior was demonstrated for Future Purchase Intention.

In terms of theoretical implications, the results of the research significantly expand the theoretical basis of the issue of the shopping behavior of consumers in the context of electronic commerce and its sustainability aspect. The proposed and verified model offers

a new perspective on the perception and impact of the aspect of sustainability on online consumer shopping behavior, thereby enriching the theoretical construct of consumer behavior in the context of e-commerce. The research results can also be a contribution to the theoretical background for future research. In terms of managerial implications, it is important for online retailers to learn about the factors which influence consumers when shopping for green products online. The results of the study identified the main aspects that influence online shopping behavior and intentions of consumers in terms of sustainability. The findings can help online retailers design appropriate strategies to encourage consumers to purchase green products online and encourage online shopping behavior. The results can also help online retailers retain new customers by promoting environmental values, which in turn can boost sales and increase competitive advantage. The research results can help online retailers in planning and implementing green marketing strategies, not only in terms of sales, but also in terms of production, packaging and shipping. In order for retailers to stay competitive, it is essential that they are able to respond promptly to changes in trends and consumer purchasing behavior preferences. It is undeniable that the aspect of sustainability plays an increasingly important role in the purchasing decisions of consumers. Online retailers are advised to develop various marketing activities that would incorporate the aspect of sustainability. Companies' green marketing efforts could bring increasing consumer awareness of green products and influence their online shopping behavior. In this way, businesses can support positive environmental attitudes and pro-environmental purchasing behavior, which will subsequently boost intentions to purchase green products online in the future. The results arrived at hereunder can also help online retailers who sell green products adapt their sales strategies and target specific groups. They can use this information to tailor their green marketing strategies and may design advertising campaigns specifically aimed at different groups of consumers. These activities will ultimately help retailers increase their turnover and sales.

Despite sufficient data, the findings arrived at hereunder may not be generalized to the whole population—this is what we consider to be the major limitation of the research. The results of the study are limited only to a certain sample of respondents, as the research was conducted in a delimited territory of the Slovak Republic. The research also tackled only one type of shopping, online shopping. This fact must be considered when generalizing the results to the general population, other forms of shopping or other countries. The period during which the research was carried out can also be perceived as a limitation. In the future, similar research could be carried out over a longer period or in several countries (e.g., the Visegrad Group countries) in order to obtain additional information and compare results on an international scale.

Future research activities could focus on comparing the shopping behavior of specific groups of consumers in terms of age or gender. As part of the research, gender or generational differences affecting the perception of the investigated factors could be analyzed. In future research, in addition to the questionnaire, other measurement tools could be implemented to complement the empirical results. It would also be interesting to conduct research in several countries at the same time to compare the results obtained. There is the possibility that, if we had conducted the survey on a sample from another country, the results would have been different. This can be an opportunity to conduct an international study and compare the different results of models.

Author Contributions: Conceptualization, L.Š., Š.K., R.F., R.B. and M.T.; methodology, L.Š., Š.K. and R.F.; software, L.Š. and Š.K.; formal analysis, L.Š. and R.B.; investigation, L.Š., Š.K., R.F. and R.B.; resources, L.Š. and M.T.; writing—original draft preparation, L.Š., Š.K. and R.F.; writing—review and editing, Š.K., R.F. and R.B.; funding acquisition, L.Š. and R.F. All authors have read and agreed to the published version of the manuscript.

Funding: This research was supported by research grants GAMA/23/2—“Consumer behavior in terms of sustainability as one of the aspects of electronic commerce” and the project VEGA 1/0694/20—“Relational marketing research—perception of e-commerce aspects and its impact on purchasing behaviour and consumer preferences”.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data available on request due to restrictions, e.g., privacy or ethical. The data are not publicly available due to GDPR.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Dangelico, R.M.; Vocalelli, D. “Green Marketing”: An analysis of definitions, strategy steps, and tools through a systematic review of the literature. *J. Clean. Prod.* **2017**, *165*, 1263–1279. [CrossRef]
2. Nekmahmud, M.; Fekete-Farkas, M. Why Not Green Marketing? Determinates of Consumers’ Intention to Green Purchase Decision in a New Developing Nation. *Sustainability* **2020**, *12*, 7880. [CrossRef]
3. Wolf, M.J.; Emerson, J.W.; Esty, D.C.; de Sherbinin, A.; Wendling, Z.A. 2022 *Environmental Performance Index*; Yale Center for Environmental Law & Policy: New Haven, CT, USA, 2022. Available online: <https://epi.yale.edu/epi-results/2022/component/epi> (accessed on 28 January 2023).
4. Mansvelt, J.; Robbins, P. *Green Consumerism: An A-to-Z Guide*, 1st ed.; SAGE Publications, Inc.: Los Angeles, CA, USA, 2010.
5. Holdorf, S.; Haasis, H.D. Last mile delivery concepts in E-Commerce an empirical approach. In Proceedings of the 8th International Conference on Software, Knowledge, Information Management and Applications, Dhaka, Bangladesh, 18 December 2014.
6. Eger, L.; Petrtyl, J.; Kunešová, H.; Mičík, M.; Peška, M. *Marketing na Internetu/Internet Marketing*; ZČU: Plzeň, Czech Republic, 2015; 157p.
7. Mendelson, H. *The Purple Book: The Definitive Guide to Exceptional Online Shopping*; Bantam Books: New York, NY, USA, 2013; 672p.
8. Grant, J. *The Green Marketing Manifesto*; John Wiley & Sons Ltd.: Hoboken, NJ, USA, 2012.
9. Qi, X.; Ploeger, A. Explaining consumers’ intentions towards purchasing green food in Qingdao, China: The amendment and extension of the theory of planned behavior. *Appetite* **2019**, *133*, 414–422. [CrossRef]
10. Katt, F.; Meixner, O. A systematic review of drivers influencing consumer willingness to pay for organic food. *Trends Food Sci. Technol.* **2020**, *100*, 374–388. [CrossRef]
11. Hossain, A.; Khan, J.H. Green marketing mix effect on consumers buying decisions in Bangladesh. *Mark. Manag. Innov.* **2018**, *4*, 298–306. [CrossRef]
12. Malá, D.; Benčíková, D.; Drugdová, J. Vnímanie zeleného produktu zákazníkom/Customer perception of a green product. In *Vplyv Inovatívnych Marketingových Koncepcií na Správanie Vybraných Trhových Subjektov na Slovensku II/The Influence of Innovative Marketing Concepts on the Behavior of Selected Market Entities in SLOVAKIA II*; Musová, Z., Ed.; Belianum: Banská Bystrica, Slovakia, 2018; pp. 162–175.
13. Bhalerao, V.R.; Deshmukh, A. Green Marketing: Greening the 4Ps of Marketing. *Int. J. Knowl. Res. Manag. E-Commer.* **2015**, *5*, 5–8.
14. Menaka, B. *Digital Business and E-Commerce Management*; Krishna Printers Press: Guajarat, India, 2021.
15. Containers and Packaging: Product-Specific Data. 2022. Available online: <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/containers-and-packaging-product-specific> (accessed on 3 February 2023).
16. Moscardo, G.; Murphy, L. There Is No Such Thing as Sustainable Tourism: ReConceptualizing Tourism as a Tool for Sustainability. *Sustainability* **2014**, *6*, 2538–2561. [CrossRef]
17. Li, Y.; Martínez-López, F.J.; Feng, C.; Chen, Y. Green Communication for More Package-Free Ecommerce Returns. *J. Theor. Appl. Electron. Commer. Res.* **2022**, *17*, 1450–1472. [CrossRef]
18. Trivedi, R.H.; Patel, J.D.; Acharya, N. Causality analysis of media influence on environmental attitude, intention and behaviors leading to green purchasing. *J. Clean. Prod.* **2018**, *196*, 11–22. [CrossRef]
19. Gonçalves, J.; Mateus, R.; Silvestre, J.D.; Roders, A.P.; Bragança, L. Attitudes matter: Measuring the intention-behaviour gap in built heritage conservation. *Sustain. Cities Soc.* **2021**, *70*, 102913. [CrossRef]
20. Young, W.; Hwang, K.; McDonald, S.; Oates, C.J. Sustainable consumption: Green consumer behaviour when purchasing products. *Sustain. Dev.* **2010**, *18*, 20–31. [CrossRef]
21. Gleim, M.R.; Smith, J.S.; Andrews, D.; Cronin, J.J., Jr. Against the green: A multi-method examination of the barriers to green consumption. *J. Retail.* **2013**, *89*, 44–61. [CrossRef]
22. Joshi, Y.; Rahman, Z. Factors affecting green purchase behaviour and future research directions. *Int. Strateg. Manag. Rev.* **2015**, *3*, 128–143. [CrossRef]
23. Bacon, L.; Krpan, D. (Not) Eating for the environment: The impact of restaurant menu design on vegetarian food choice. *Appetite* **2018**, *125*, 190–200. [CrossRef]
24. Torelli, R.; Balluchi, F.; Lazzini, A. Greenwashing and environmental communication: Effects on stakeholders’ perceptions. *Bus. Strategy Environ.* **2020**, *29*, 407–421. [CrossRef]
25. Shabani, N.; Ashoori, M.; Taghinejad, M.; Beyrami, H.; Fekri, M.N. The study of green consumers’ characteristics and available green sectors in the market. *Int. Res. J. Appl. Basic Sci.* **2013**, *4*, 1880–1883.
26. Uesugi, S. *IT Enabled Services*; Springer: Berlin/Heidelberg, Germany, 2013.
27. Bhowmik, P.; Mukherjee, R. *Online Store: The Perk and The Clog*. Chennai; Notion Press: Chennai, India, 2015.

28. The Balance Small Business-Advantages and Disadvantages of E-Commerce. Available online: <https://www.thebalancesmb.com/ecommerce-pros-and-cons-1141609> (accessed on 13 February 2023).
29. Saluja, V. *Information Technology—Class 10—CBSE: Code 402*; VK Global Publications Pvt.Ltd: Faridabad, India, 2019.
30. Paetz, F.; Guhl, D. Understanding differences in segment-specific willingness-to-pay for the fair trade label. *Mark. ZFP* **2017**, *39*, 37–46. [CrossRef]
31. Ako Nakupovat Ekologicky a Ekonomicky Zároveň/How to Shop Both Ecologically and Economically. Available online: <https://www.pricemania.sk/blog/ako-nakupovat-ekologicky-a-ekonomicky-zaroven/> (accessed on 4 February 2023).
32. Prajapati, D.; Pratap, S.; Zhang, M.; Huang, G.Q. Sustainable forward-reverse logistics for multi-product delivery and pickup in B2C e-commerce towards the circular economy. *Int. J. Prod. Econ.* **2022**, *253*, 108606. [CrossRef]
33. Ninety Percent of Australian Consumers Want Sustainable Products. Available online: <https://thefifthstate.com.au/home-and-lifestyle/consumers/ninety-per-cent-of-australian-consumers-want-sustainable-products/> (accessed on 10 February 2023).
34. Green Consumerism: Who Cares About the Environment? Available online: https://www.gwi.com/?_ga=2.92057242.144482634.1668168762-2022252863.1668168762 (accessed on 19 January 2023).
35. Carley, S.; Yahng, L. Willingness-to-pay for sustainable beer. *PLoS ONE* **2018**, *13*, e0204917. [CrossRef]
36. Li, S.; Kallas, Z. Meta-analysis of consumers' willingness to pay for sustainable food products. *Appetite* **2021**, *163*, 105239. [CrossRef]
37. Casalegno, C.; Candelo, E.; Santoro, G. Exploring the antecedents of green and sustainable purchase behaviour: A comparison among different generations. *Psychol. Mark.* **2022**, *39*, 1007–1021. [CrossRef]
38. Ham, C.D.; Chung, U.C.; Kim, W.J.; Lee, S.Y.; Oh, S.H. Greener than others? Exploring generational differences in green purchase intent. *Int. J. Mark. Res.* **2022**, *64*, 376–396. [CrossRef]
39. Gen Z Shoppers Demand Sustainable Retail. Available online: <https://www.firstinsight.com/white-papers-posts/gen-z-shoppers-demand-sustainability> (accessed on 14 January 2023).
40. E-Commerce Delivery Compass 2021/2022. Available online: <https://www.sendcloud.com/whitepapers/e-commerce-delivery-compass-2021/#download> (accessed on 7 January 2023).
41. Nguyen, A.T.; Parker, L.; Brennan, L.; Lockrey, S. A consumer definition of eco-friendly packaging. *J. Clean. Prod.* **2020**, *252*, 119792. [CrossRef]
42. Prakash, G.; Pathak, P. Intention to buy eco-friendly packaged products among young consumers of India: A study on developing nation. *J. Clean. Prod.* **2017**, *141*, 385–393. [CrossRef]
43. Rhein, S.; Schmid, M. Consumers' awareness of plastic packaging: More than just environmental concerns. *Resour. Conserv. Recycl.* **2020**, *162*, 105063. [CrossRef]
44. Herrmann, C.; Rhein, S.; Sträter, K.F. Consumers' sustainability-related perception of and willingness-to-pay for food packaging alternatives. *Resour. Conserv. Recycl.* **2022**, *181*, 106219. [CrossRef]
45. McKinsey & Company: The State of Fashion. Available online: <https://www.mckinsey.com/~media/mckinsey/industries/retail/our%20insights/the%20state%20of%20fashion%202020%20navigating%20uncertainty/the-state-of-fashion-2020-final.pdf> (accessed on 20 February 2023).
46. Lending Tree Group: 55% Would Spend More on Eco-Friendly Products While Willing to Boycott Less-Green Companies. Available online: <https://www.lendingtree.com/credit-cards/study/consumers-would-spend-more-on-eco-friendly-products/> (accessed on 20 February 2023).
47. Economic Intelligence Unit: An Eco-Wakening—Measuring Global Awareness, Engagement and Action for Nature. Available online: <https://explore.panda.org/eco-wakening#full-report> (accessed on 20 February 2023).
48. Cao, Y.; Ajjan, H.; Hong, P. Post-purchase shipping and customer service experiences in online shopping and their impact on customer satisfaction: An empirical study with comparison. *Asia Pac. J. Mark. Logist.* **2018**, *30*, 400–416. [CrossRef]
49. Alam, S.S.; Ali, M.H.; Omar, N.A.; Hussain, W.M.H.W. Customer Satisfaction in Online Shopping in Growing Markets: An Empirical Study. *Int. J. Asian Bus. Inf. Manag.* **2020**, *11*, 78–91. [CrossRef]
50. Bandara, R.; Fernando, M.; Akter, S. Explicating the privacy paradox: A qualitative inquiry of online shopping consumers. *J. Retail. Consum. Serv.* **2020**, *52*, 101947. [CrossRef]
51. Suhartanto, D.; Triyuni, N.N.; Leo, G. Online Shopping Loyalty: The Role of Quality, Trust, Value, and Satisfaction. *Adv. Sci. Lett.* **2018**, *24*, 735–738. [CrossRef]
52. Barbarossa, C.; De Pelsmacker, P. Positive and Negative Antecedents of Purchasing Eco-friendly Products: A Comparison Between Green and Non-green Consumers. *J. Bus. Ethics* **2014**, *134*, 229–247.
53. Cuc, L.D.; Pelau, C.; Szentesi, S.G.; Sanda, G. The impact of green marketing on the consumers' intention to buy green products in the context of the green deal. *Amfiteatru Econ.* **2022**, *24*, 330–345.
54. Peterson, M.; Minton, E.A.; Liu, R.L.; Bartholomew, D.E. Sustainable marketing and consumer support for sustainable businesses. *Sustain. Prod. Consum.* **2021**, *27*, 157–168.
55. Lee, J.; Ko, E.; Megehee, C.M. Social benefits of brand logos in presentation of 928 self in cross and same gender influence contexts. *J. Bus. Res.* **2015**, *68*, 1341–1349.
56. Biswas, A.; Roy, M. Green products: An exploratory study on the consumer behaviour in emerging economies of the east. *J. Clean. Prod.* **2015**, *87*, 463–468.
57. Kumar, P.; Ghodeswar, B. Factors affecting consumers' green product purchase decisions. *Mark. Intell. Plan.* **2015**, *33*, 330–347.

58. Paul, J.; Modi, A.; Patel, J. Predicting green product consumption using Theory of Planned Behavior and Reasoned Action. *J. Retail. Consum. Serv.* **2016**, *29*, 123–134.
59. Kumar, B.; Manrai, A.K.; Manrai, L.A. Purchasing behaviour for environmentally sustainable products: A conceptual framework and empirical study. *J. Retail. Consum. Serv.* **2017**, *34*, 1–9.
60. Ecommerce Europe: Collaborative Report on Sustainability and e-Commerce. Available online: <https://www.ecommerce-europe.eu/wp-content/uploads/2020/09/Collaborative-Report-on-Sustainability-and-e-Commerce.pdf> (accessed on 22 February 2023).
61. Abdelkader, O.A.; Attallah, S. 'Attitudinal and behavioural' loyalty toward green buildings among generations from baby boomers to Z. *Int. J. Serv. Oper. Manag.* **2021**, *40*, 203–216. [\[CrossRef\]](#)
62. Ottman, J.A. *The New Rules of Green Marketing: Strategies, Tools, and Inspiration for Sustainable Branding*; Routledge: London, UK, 2017.
63. Lunsford, T.; Lunsford, B. The Research Sample, Part I. *JPO J. Prosthet. Orthot.* **1995**, *7*, 17A. [\[CrossRef\]](#)
64. Papadas, K.K.; Avlonitis, G.J.; Carrigan, M. Green marketing orientation: Conceptualization, scale development and Validation. *J. Bus. Res.* **2017**, *80*, 237–246.
65. Hojnik, J.; Ruzzier, M.; Fabri, S.; Klopčič, A.L. What you give is what you get: Willingness to pay for green energy. *Renew. Energy* **2021**, *174*, 733–746.
66. Yang, S.; Li, L.; Zhang, J. Understanding Consumers' Sustainable Consumption Intention at China's Double-11 Online Shopping Festival: An Extended Theory of Planned Behavior Model. *Sustainability* **2018**, *10*, 1801.
67. Kalinic, Z.; Marinkovic, V. Determinants of users' intention to adopt m-commerce: An empirical analysis. *Inf. Syst. e-Bus. Manag.* **2016**, *14*, 367–387.
68. Hu, L.; Bentler, P.M. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Struct. Equ. Model. A Multidiscip. J.* **1999**, *6*, 1–55. [\[CrossRef\]](#)
69. Efron, B.; Tibshirani, R.J. *An Introduction to the Bootstrap*; Chapman & Hall: New York, NY, USA, 1993.
70. Kline, R.B. *Principles and Practice of Structural Equation Modeling*, 3rd ed.; Guilford Press: New York, NY, USA, 2011.
71. Hair, J.F.; Anderson, R.E.; Babin, B.J.; Black, W.C. *Multivariate Data Analysis: A Global Perspective*, 7th ed.; Pearson: London, UK, 2010.
72. Hair, J.F.; Black, W.C.; Babin, B.J.; Anderson, R.E. *Multivariate Data Analysis*, 8th ed.; Cengage: Boston, USA, 2018.
73. Bollen, K. *Structural Equations with Latent Variables*; Wiley: New York, NY, USA, 1989.
74. Tzang, R.F.; Chang, Y.C.; Chang, C.H. Structural equation modeling (SEM): Childhood aggression and irritable ADHD associated with parental psychiatric symptoms. *Int. J. Environ. Res. Public Health* **2021**, *18*, 10068.
75. Gong, Y.; Putnam, E.; You, W.; Zhao, C. Investigation into circular economy of plastics: The case of the UK fast moving consumer goods industry. *J. Clean. Prod.* **2020**, *244*, 118941.
76. Ma, X.; Park, C.; Moultrie, J. Factors for eliminating plastic in packaging: The European FMCG experts' view. *J. Clean. Prod.* **2020**, *256*, 120492.
77. Hao, Y.; Liu, H.; Chen, H.; Sha, Y.; Ji, H.; Fan, J. What affects consumers' willingness to pay for green packaging? Evidence from China. *Resour. Conserv. Recycl.* **2019**, *141*, 21–29.
78. Mostafa, M.M. Egyptian consumers' willingness to pay for carbon-labeled products: A contingent valuation analysis of socio-economic factors. *J. Clean. Prod.* **2016**, *135*, 821–828.
79. Wei, S.; Ang, T.; Jancennele, V.E. Willingness to pay more for green products: The interplay of consumer characteristics and customer participation. *J. Retail. Consum. Serv.* **2018**, *45*, 230–238. [\[CrossRef\]](#)
80. Greenwood, S.C.; Walker, S.; Baird, H.M.; Parsons, R.; Mehl, S.; Webb, T.L.; Slark, A.T.; Ryan, A.J.; Rothman, R.H. Many Happy Returns: Combining insights from the environmental and behavioural sciences to understand what is required to make reusable packaging mainstream. *Sustain. Prod. Consum.* **2021**, *27*, 1688–1702. [\[CrossRef\]](#)
81. Roy, H. Effect of green marketing on consumer behaviour—A study with practical reference to West Bengal. *Int. J. Behav. Soc. Mov. Sci.* **2013**, *2*, 44–55.
82. Singh, P.B.; Pandey, K.K. Green marketing: Policies and practices for sustainable development. *Integral Rev. A J. Manag.* **2012**, *5*, 22–30.
83. What is Green Marketing: Ideas and Examples. Available online: <https://sendpulse.com/support/glossary/green-marketing> (accessed on 18 February 2023).
84. Liu, X.; Wang, C.; Shishime, T.; Fujitsuka, T. Sustainable consumption: Green purchasing behaviours of urban residents in China. *Sustain. Dev.* **2012**, *20*, 293–308. [\[CrossRef\]](#)
85. Salazar, H.A.; Oerlemans, L.; van Stroe-Biezen, S. Social influence on sustainable consumption: Evidence from a behavioural experiment. *Int. J. Consum. Stud.* **2013**, *37*, 172–180. [\[CrossRef\]](#)
86. Setyawan, A.; Noermijati, N.; Sunaryo, S.; Aisjah, S. Green product buying intentions among young consumers: Extending the application of theory of planned behavior. *Probl. Perspect. Manag.* **2018**, *16*, 145–154. [\[CrossRef\]](#) [\[PubMed\]](#)
87. Bong Ko, S.; Jin, B. Predictors of purchase intention toward green apparel products: A cross-cultural investigation in the USA and China. *J. Fash. Mark. Manag.* **2017**, *21*, 70–87. [\[CrossRef\]](#)
88. Park, H.J.; Lin, L.M. Exploring attitude-behavior gap in sustainable consumption: Comparison of recycled and upcycled fashion products. *J. Bus. Res.* **2020**, *117*, 623–628. [\[CrossRef\]](#)

89. Thakur, K.S.; Gupta, S. Exploration of green shift: Shift from trendy marketing to environment friendly green marketing. *Int. J. Arts Commer.* **2012**, *1*, 122–133.
90. Maheshwari, A.; Malhotra, G. Green marketing: A study on Indian youth. *Int. J. Manag. Strategy* **2011**, *2*, 1–15.
91. Jansson, J. Consumer eco-innovation adoption: Assessing attitudinal factors and perceived product characteristics. *Bus. Strategy Environ.* **2011**, *20*, 192–210. [[CrossRef](#)]
92. Gansser, O.A.; Reich, C.S. Influence of the new ecological paradigm (NEP) and environmental concerns on pro-environmental behavioural intention based on the theory of planned behaviour (TPB). *J. Clean. Prod.* **2022**, *382*, 134629. [[CrossRef](#)]
93. Ahn, J.M.; Koo, D.M.; Chang, H.S. Different impacts of normative influences on pro-environmental purchasing behavior explained by differences in individual characteristics. *J. Glob. Sch. Mark. Sci. Bridg. Asia World* **2012**, *22*, 163–182. [[CrossRef](#)]
94. Kim, H.Y.; Chung, J.E. Consumer purchase intention for organic personal care products. *J. Consum. Mark.* **2011**, *28*, 40–47.
95. De Silva, M.; Wang, P.; Kuah, A.T.H. Why wouldn't green appeal drive purchase intention? Moderation effects of consumption values in the UK and China. *J. Bus. Res.* **2021**, *122*, 713–724. [[CrossRef](#)]
96. Lee, K. Opportunities for green marketing: Young consumers. *Mark. Intell. Plan.* **2008**, *26*, 573–586. [[CrossRef](#)]
97. Costa, C.S.R.; da Costa, M.F.; Maciel, R.G.; Aguiar, E.C.; Wanderley, L.O. Consumer antecedents towards green product purchase intentions. *J. Clean. Prod.* **2021**, *313*, 127964. [[CrossRef](#)]
98. Vlaeminck, P.; Jiang, T.; Vranken, L. Food labeling and eco-friendly consumption: Experimental evidence from a Belgian supermarket. *Ecol. Econ.* **2014**, *108*, 180–190. [[CrossRef](#)]
99. Camilleri, A.R.; Larrick, R.P.; Hossain, S.; Patino-Echeverri, D. Consumers underestimate the emissions associated with food but are aided by labels. *Nat. Clim. Chang.* **2019**, *9*, 53–58. [[CrossRef](#)]
100. Cerri, J.; Testa, F.; Rizzi, F. The more I care, the less I will listen to you: How information, environmental concern and ethical production influence consumers' attitudes and the purchasing of sustainable products. *J. Clean. Prod.* **2018**, *175*, 343–353. [[CrossRef](#)]
101. Akaichi, F.; Glenk, K.; Revoredo-Giha, C. Could animal welfare claims and nutritional information boost the demand for organic meat? Evidence from non-hypothetical experimental auctions. *J. Clean. Prod.* **2019**, *207*, 961–970. [[CrossRef](#)]
102. Top E-Commerce Trendy Pre Rok 2022/Top E-Commerce Trends in 2022. Available online: <https://midasto.sk/e-commerce-trendy-2022/> (accessed on 9 February 2023).
103. Shao, P.; Lassleben, H. Determinants of Consumers' Willingness to Participate in Fast Fashion Brands' Used Clothes Recycling Plans in an Omnichannel Retail Environment. *J. Theor. Appl. Electron. Commer. Res.* **2021**, *16*, 3340–3355. [[CrossRef](#)]
104. Islam, M.S.; Proma, A.M.; Wohn, C.; Berger, K.; Uong, S.; Kumar, V.; Smith Korfmacher, K.; Hoque, E. SEER: Sustainable E-commerce with Environmental-impact Rating. *Clean. Environ. Syst.* **2022**, *8*, 100104. [[CrossRef](#)]
105. Chung, K.C. Green Marketing Orientation: Achieving Sustainable Development in Green Hotel Management. *J. Hosp. Mark. Manag.* **2020**, *29*, 722–738. [[CrossRef](#)]
106. Mukonza, C.; Swarts, I. The Influence of Green Marketing Strategies on Business Performance and Corporate Image in the Retail Sector. *Bus. Strategy Environ.* **2020**, *29*, 838–845. [[CrossRef](#)]

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