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The role of iGeneration and Silver generation in shaping sustainable food markets: a cross-generational analysis in Slovakia

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The rising global phenomenon of sustainable consumption in the food market is progressively influencing a significant number of consumers on a worldwide scale. The main goal of this study was to analyze consumer attitudes toward selected sustainability issues (organic aspects, animal welfare, waste management, etc.) as well as marketing communication in the food market among two generations. Primary data were acquired by implementing an online questionnaire. In total, 950 respondents participated in the survey. The results showed that the iGeneration (iGen; 18–25 years) has a higher tendency than the Silver generation (58–76 years) to support sustainability issues such as recyclable packaging, organic production, and animal welfare, as well as to read the information regarding the product nutrition and composition. The Silver generation is more inclined toward Slovak origin and traditional Slovak dishes, and they consider television and the press as the main source of information. The results provide valuable insights for agrifood companies in developing consumer-driven marketing strategies. The main limitation is related to the application of self-reported measures. Future research may include cross-cultural studies and could be extended by incorporating other sustainable and environmental aspects.

KEYWORDS

consumer behavior, food market, cross-generational marketing, sustainability, Slovakia

1. Introduction

In the past decade, there has been a noticeable change in consumer preferences toward sustainable consumption. This is due to a growing number of individuals who are incorporating eco-friendly and sustainable products into their dietary choices (Vermeir et al., 2020). The concept of sustainable food consumption is associated with several dimensions of consumption, such as the consumption of locally produced products (Bianchi and Mortimer, 2015), reducing consumption of meat and processed foods in consumer society (de Bakker and Dagevos, 2012; Cai et al., 2022), increasing consumption of fruits (Di Vita et al., 2021) and vegetables (De Cianni et al., 2023), and a general preference for products with minimal ecological and carbon footprints (Carlsson-Kanyama and González, 2009). Eating healthy is widely acknowledged as a fundamental means for individuals to attain and sustain good health (McDonald and Braun, 2022). There is a general understanding among the public that healthy food

intake has a significant impact on their wellbeing. There is an increasing interest in the healthiness, nutritional sufficiency, balance, and safety of diets (Asioli et al., 2017), as well as familiarity with recommended dietary guidelines (Laguna-Camacho et al., 2018). However, how people interpret healthy eating is more complex. According to Whybrow et al. (2017), there exists evidence of a significant connection between our dietary health and social determinants. In the view of Westgard and Dahl (2013), social determinants may lead to poor healthy food availability, reduced access to adequate nutrition, a higher prevalence of hunger, and a surge incidence of obesity and other illnesses. Conversely, societal motives encompass the preference for purchasing local food due to its perceived environmental sustainability and its perceived social responsibility to create local employment opportunities and provide support to small-scale producers (Morris and Buller, 2003).

The escalation of diet-related illnesses worldwide coincides with a global rise in the mass production of food through industrial processes, which tend to be typically characterized by being high in fats, salts, and sugars while being low in micronutrients, fiber, and phytochemicals (Monteiro et al., 2010; Moubarac et al., 2014). Industrial ultra-processing foods primarily aim to produce convenient, tasty, and visually appealing products using cheaper ingredients and provide a longer duration on a supermarket shelf. Ultra-processed foods are not just nutritionally different, but they are often in the form of ready-to-eat, ready-to-drink, or ready-to-heat, requiring little time or effort to prepare (Monteiro et al., 2017; Cai et al., 2022). Due to this lifestyle, people shifted their food preferences by increasing the use of frozen, canned, and dried goods (Future Market Insights Inc., 2022).

The latest statistics from EHIS indicate high rates of overweight and obesity in the European Union, where 51.1% of adults have a BMI of 25 or higher, and 15.1% have a BMI of 30 or higher (Eurostat, 2023). Paradoxically, while certain segments of the population struggle with excess calorie intake related to cheap calories, highly processed foods, and overconsumption, others continue to face insufficient caloric intake. Transitioning to plant-based diets toward higher consumption of fruits and vegetables may benefit public health and the environment (Reardon et al., 2019; Willett et al., 2019). Many researchers agree that healthy food choice is not a result of a single behavior but is the influence of various factors such as health, environmental concerns, ethical considerations (Rosenfeld and Burrow, 2017), social values (Schösler et al., 2012), or convenience (Grunert et al., 2010). Encouraging such dietary changes through education and policy interventions may thus represent a promising strategy for promoting both individual and societal wellbeing. Therefore, the current study explores the role of sustainable food consumption among the iGeneration and the Silver generation. Specifically, this research studies attitudes toward selected sustainability issues (organic aspects, animal welfare, waste management, Nutri-Score system, purchasing criteria, etc.) as well as marketing communication in the Slovak food market.

2. Literature review

The agri-food chains, food processing, and consumption patterns are undergoing significant changes due to shifts in food demand (Reisch et al., 2013; Recchia, 2019). Furthermore, there has been a significant increase in the level of interest surrounding sustainability, sustainable production, and sustainable consumption across the agro-sector. The pursuit of sustainable development encompasses the implementation of strategies aimed at attaining objectives in the realms of economic profitability, social wellbeing, and environmental concerns (World Bank, 2003). In line with the importance of sustainability in food consumption, it specifically relates with a fairtrade (Clarke et al., 2007), sustainability-supporting policies, environmental impact of food production (Vermeir and Verbeke, 2006), animal welfare (Miranda-de la Lama et al., 2019), consumption of local products (Bianchi and Mortimer, 2015), sustainable production methods (Polenzani et al., 2020), and consumption of organic food (Chekima et al., 2017).

Therefore, there is a crucial task to motivate consumers to shift toward consuming in more sustainable and innovative ways (Szymkowiak et al., 2022). Global acceptance of novel or emerging technologies in the field of food production and processing is characterized by heterogeneity across different regions of the world. On the positive side, technical innovations are generally accepted with enthusiasm, because they offer benefits regarding resource efficiency, climate change, food safety, shelf life, nutritional value, and sensory quality (Martins et al., 2019). On the less positive side, some regions may display skepticism in the context of the rejection of such practices. They prefer the principle of "natural", traditional food production, or minimally processed food without additives (Ragaert et al., 2004; Lavilla and Gayán, 2018; Rabadán and Bernabéu, 2021). Many authors highlight food neophobia, which has been defined as reluctance or rejection to try new or unfamiliar foods. This phenomenon presents a major challenge for the successful implementation and adoption of innovative and sustainable approaches in the food industry in the near future (Pliner and Hobden, 1992; Eckl et al., 2021; Spendrup and Hovmalm, 2022).

Furthermore, growing interest in healthy eating increases the importance of local economies and products. In a previous study, Stagl (2002) states that locally produced food using natural methods and no additives maintains its nutritional value and survives long-range transportation. Hence, many different motives and stimuli determine consumer decisions about local food. Consumers prefer to consume local food due to their beliefs that food is fresher, healthier, and tastier (Darby et al., 2008), connected by traditions and support of community (Feagan and Morris, 2009) or linked to perceptions of cultural and personal identity (Ferguson and Thompson, 2020). The experiment conducted by Pole and Kumar (2015) identified various segments based on their food-related lifestyle in America. Segments included generational differences, education level, ethnicity, and frequency of purchasing various types of local food. Consequently, a decision to purchase local food is shaped by several factors including health consciousness, environmental and local economic concerns, and perceived social pressure. In addition, Birch et al. (2018) argue that evidence supporting consumers' motives for purchasing local food is also related to food production systems' safety, health, sustainability, and societal impacts.

While some forms of marketing communication are noticeable to consumers, consumers may not fully recognize other methods, and their consumption decisions are being influenced (Chandon and Wansink, 2012). Most food advertisements aim at the younger population to promote energy-dense and junk products (Boyland et al., 2016; Qutteina et al., 2019; Smith et al., 2019).

Consumers are becoming more conscious of the link between food intake and healthy eating (Goukens and Klesse, 2022). The rising demand for transparency in food composition and production processes has led to a boosted awareness of healthy eating guidance, mainly eating more fruits and vegetables (Laguna-Camacho, 2023). When people perceive food as healthy instead of unhealthy, they tend to consume more of it, which provides a basis for encouraging sustainable consumption patterns (Ilyuk et al., 2019). Earlier studies showed that policymakers implemented numerous policies to promote the healthiness of diets at the population level, such as front-of-pack labeling, communication programs, and advertising restrictions (Kelly et al., 2010; Kloss et al., 2015). A front-of-pack (FOP) food label is a valuable tool that helps consumers to evaluate the nutritional characteristics of food products (Ahn and Lee, 2022). Several FOP labeling formats exist, and based on a comparative study, Nutri-Score has been found to be superior to other FOP labeling, providing consumers to select a healthy choice and avoid unhealthy foods (Newman et al., 2017; Ikonen et al., 2019).

Marketing practitioners also expressed communication potential in social media, which offers a cost-effective and powerful tool for promoting healthy lifestyles and sharing relevant information (Moorhead et al., 2013). In earlier literature, it is reported that a large number of followers on social media can trigger intentions to consume non-health-related products (Jin and Phua, 2014). Despite this, van der Bend et al. (2022) noted that social media platforms raised concerns about the content of food marketing and how it may affect the dietary patterns and health outcomes of young people. In view of that, De Jans et al. (2021) argue that a viable strategy to encourage healthier eating habits could involve using social media to demonstrate the negative outcomes associated with snacks and low-nutrient foods. Boyland and Tatlow-Golden (2017) show that communication dissemination occurs through liking, commenting, or sharing ads, with businesses and social media influencers to endorse products or services. Several studies underlined that customized marketing content resonates with consumers and enhances their purchase behavior (Sohail et al., 2020; Thaker et al., 2020).

All of the above studies result in a wide multidisciplinary approach to the current state of marketing communication that influences food choices between generations. The development of emerging foods and innovative sustainable or local food production and consumption, while simultaneously considering the perception of traditional and social media in the field of healthy eating, will be crucial to produce healthier, safer, and more sustainable foods in the future.

Hence, the subsequent research questions were formulated:

RQ1: Are there any differences in how the Silver generation and iGeneration consider criteria during food purchases?

RQ2: Do the Silver generation and iGeneration differ in their attitudes toward selected statements concerning sustainability issues?

RQ3: Are there any differences in how the Silver generation and iGeneration indicate their level of agreement toward selected statements concerning marketing communication in the food market?

3. Methodology

3.1. Data collection and research sample and design

The study is based on the primary research applied in Slovakia. The consumer research was implemented in 2022 by conducting an online questionnaire survey. The data collection was applied via social media and emails using non-probability sampling. The research sample includes a total of 950 respondents, where 50% are representatives of the Silver generation (58–76 years) and the second half are representatives of the iGeneration (18–25 years). The age segments were formed based on existing literature (Šedík et al., 2018; Laskowska and Laskowski, 2022). The final research sample is representative based on gender, where female respondents represent 52.63%. The whole socio-demographic profile is displayed in Table 1. The questionnaire was divided into several sections devoted to attitudes toward statements related to sustainability issues, eating habits, and innovativeness. Respondents evaluated these statements using a 7-point scale (1–fully agree and 7–fully disagree). Furthermore, respondents evaluated the importance of selected criteria during the purchase of food using a 7-point scale, where 1 represented the most important criterion and 7 meant the least important criterion. The last section was devoted to statements related to marketing communication in the food market.

3.2. Statistical analysis

Both descriptive statistics and non-parametric tests were applied using Xlstat 2022.4.1. A similar approach was applied in other consumer studies (Horská et al., 2023; Ketelings et al., 2023). Friedman test and Nemeniy procedure were used for scaling questions related to criteria at food purchase as well as to statements about marketing communication in the food market. The Mann–Whitney *U*-test was used to identify differences between the Silver generation and iGeneration in the evaluation of selected statements related to sustainability issues. The Mann–Whitney *U*-test is a rank-based non-parametric test that was applied for identifying statistically significant differences among generations (Lerro et al., 2019). In addition, multiple correspondence analysis (MCA) was implemented to study associations between consumers' awareness of the Nutri-Score system, their place of residence, and their affiliation with the selected generation. The first two factorial dimensions (F1 and F2) accounted for a significant proportion of the data matrix's variability, therefore, the primary emphasis was placed on them. A similar approach was implemented in a consumer study related to honey preferences (Šedík et al., 2023).

TABLE 1 Socio-demographic profile of acquired research sample.

Gender	Male	47.37%
	Female	52.63%
Age cohort	Silver generation (58–76 years)	50.00%
	iGeneration (18–25 years)	50.00%
Acquired level of education	Primary education	7.68%
	Secondary education	73.47%
	University education	18.84%
Place of residence	Rural	46.32%
	Urban	53.68%
Household Netto income per month	Up to 500 *e*	14.21%
	501–1,000 *e*	31.89%
	1,000–2,000 *e*	35.05%
	More than 2,000 *e*	18.84%
Economic activity	Pensioner	40.11%
	Student	35.89%
	Employed	18.21%
	Entrepreneur	3.26%
	Maternity leave	0.32%
	Unemployed	2.21%

It can be stated that MCA represents an exploratory multivariate statistics technique that studies associations among two and more categorical variables. In general, MCA is considered an extension of the correspondence analysis. MCA is widely applied in marketing and business studies to identify non-causal relationships among categorical variables (Rodrigues et al., 2022; Di Vita et al., 2023).

4. Results

The results indicated several differences between these two examined generations (Table 2). In general, the Silver generation perceived price, sensory attributes, and discount as the most important criteria during their decision-making process in the food market, followed by country of origin, recommendations, product information on the label, and local/regional aspect. The least important criteria evaluated were the carbon footprint of the product, fairtrade certificate, and ecological certificate. On the other hand, the iGeneration evaluated the sensory attributes followed by price, discount, product information on the label, and recommendations as the most important criteria. The carbon footprint of the product, regional brand, ecological certificate, and fairtrade certificate were assessed as the least important criteria. The statistically significant differences (RQ1) were confirmed by the Friedman test and the Nemeniy procedure. Overall, the Silver generation is more focused on the country of origin, regional brand, and local aspect of products while the younger generation is more focused on recyclable packaging. However, it can be stated that both segments are careless about sustainability aspects when purchasing foods which can be related to a higher level of price sensitivity and lower income.

Moreover, the study investigated differences in the level of agreement toward selected statements related to sustainability issues among the Silver generation and iGeneration. The only insignificant differences were identified in the following statement: "I thoroughly separate household waste" where both generations indicated positive agreement. The results showed (Table 3) that iGeneration tries to purchase food packaged in recyclable packaging, purchases from producers who take care of animal welfare, and is interested in what conditions animals live in on farms. Moreover, they are willing to pay more for organically grown products as well as they are looking for protein products of high quality. iGeneration considers themselves to be innovators and tends to try new food products. Conversely, the Silver generation indicated higher agreement in the following statements: traditional Slovak dishes dominate in my diet, I consider Slovak food to be of high quality, and I think that Slovak food should be cheaper than foreign food. This generation does not care about animal welfare and supporting organic production, is not willing to pay more for organically grown products, and does not purchase food in recyclable packaging. Furthermore, the Silver generation indicated higher agreement in terms of reducing food waste, monitoring the expiration date or shelf life, having favorite products, preparing fresh food, eating regularly several times a day, and considering the price of products as the most important thing. On the other hand, the iGeneration indicated higher agreement in willingness to pay a higher price for a food product of high quality as well as in the statement that food companies should innovate their products. Overall, it can be stated that RQ2 was confirmed.

Furthermore, the study focused on the level of awareness in terms of the Nutri-Score system in general. The results of MCA showed that the Nutri-Score system is more known among iGeneration living in urban areas while the Silver generation from rural areas tend to answer that they do not know about this system. In addition, it can be stated that iGeneration tends to answer that Nutri-Score is important both for producers and consumers (Figure 1).

Another part of the questionnaire survey was oriented on aspects of marketing communication in the food market between these two generations. The results showed (Figures 2, 3) that both generations mostly agreed that local food producers as well as regional specialties are less promoted while the lowest agreement was obtained by statements indicated as follows "I am most interested if a famous talks about the food product." Moreover, the Silver generation indicated higher agreement on considering television and the press as the most important sources of information as well as the statement about foods from abroad having more prominent advertising than food produced in Slovakia. Conversely, the iGeneration agreed that they read the product composition and nutrition values while the lowest agreement where with considering television and the press as the most important sources of information. All in all, it can be stated that RQ3 was confirmed.

10.3389/fsufs.2023.1240750

TABLE 2 Evaluation of selected criteria at food purchase among Silver and iGeneration.

Sample Silver generation	Mean	Mean of ranks	Groups						
Price	1.876	4.420	A						
Sensory attributes	1.962	4.629	A						
Discount	2.061	4.888	A						
Origin	2.707	6.174		B					
Recommendations	2.621	6.202		B					
Product information	2.922	6.761		B					
Local aspect	3.002	6.836		B					
advertisement	3.703	8.692			C				
Regional brand	4.088	9.407			C	D			
Recyclable packaging	4.223	9.531			C	D			
Ethical aspect	4.394	10.067				D	E		
Animal welfare	4.480	10.207				D	E		
Ecological certificate	4.518	10.302				D	E	F	
Fairtrade certificate	4.655	10.652					E	F	
Carbon footprint of the product	4.861	11.232						F	
Sample iGeneration	**Mean**	**Mean of ranks**	**Groups**						
Sensory attributes	2.036	4.512	A						
Price	2.341	5.428	A	B					
Discount	2.427	5.667		B					
Product information	2.720	6.222		B					
Recommendations	2.745	6.316		B					
Origin	3.192	7.365			C				
Local aspect	3.396	7.971			C	D			
Recyclable packaging	3.627	8.395				D	E		
Advertisement	3.899	9.200					E	F	
Animal welfare	3.996	9.317					E	F	
Ethical aspect	4.080	9.542						F	
Fairtrade certificate	4.072	9.639						F	G
Ecological certificate	4.124	9.738						F	G
Regional brand	4.291	10.094						F	G
Carbon footprint of the product	4.478	10.595							G

Source: own processing, XLStat.

5. Discussion

The present study contributes to marketing communication by providing empirical evidence on attitudes toward sustainable food consumption among the iGeneration and the Silver Generation in the food market. Our results allow us to identify the most significant criteria in the decision-making process, including qualitative, sensory, or visual attributes. The findings reveal that sensory

TABLE 3 Differences in statement evaluation between the Silver generation and the iGeneration.

Selected statements related to sustainability issues	Silver generation	iGeneration	*p*-value
	Mean		
I purchase in zero waste stores	5.55	5.04	0.000**
I try to purchase food packaged in recyclable packaging	4.67	3.78	0.000**
I thoroughly separate household waste	2.52	2.53	0.360
I try to reduce my food waste	1.98	2.24	0.000**
I try to support organic production and buy organically grown products	3.96	3.52	0.000**
I am willing to pay more for organically grown products	4.23	3.63	0.000**
I am interested in the conditions in which farm animals live	4.12	3.68	0.001**
I try to purchase from producers who take care about animal welfare	4.48	3.84	0.000**
I prefer to prepare fresh food	2.23	2.68	0.000**
I prefer fast food, public catering, and restaurants	5.82	4.21	0.000**
Traditional Slovak dishes dominate in my diet	2.39	3.93	0.000**
I eat regularly, several times a day	2.18	2.70	0.000**
I have my favorite products and I purchase them	1.99	2.52	0.000**
I am an innovator and like to try new foods	4.67	3.19	0.000**
Food companies should innovate their products	3.72	2.83	0.000**
For me, the most important thing is the price of the product	2.55	3.34	0.000**
I carefully monitor the expiration date and/or shelf life	2.40	2.71	0.000**
I am willing to pay a higher price for food products of high quality	3.33	2.71	0.000**
I am looking for protein products of high quality	5.39	3.80	0.000**
In general, I consider Slovak food to be of high quality	2.00	2.57	0.000**
Slovak food should be cheaper than foreign food	1.99	2.64	0.000**

**p-value < 0.05 for Mann–Whitney U test. Source: own processing, XLStat.

experiences are the primary determinant of purchase decisions for iGen. This result is consistent with the research on sustainable food markets among Generation Z, which indicates significant attributes related to tastes and diverse flavors (Su et al., 2019). Price and discount were also important considerations, which reveal that affordability and cost-effectiveness play a central role in their approach to settling on a food choice. Abdelradi (2018) noted that budgets are always a major factor when purchasing food. According to Garanti (2019), iGens are known for being selective, and their preference for the product's actual characteristics, usefulness of the product, and word-of-mouth marketing when making purchases (Özkan, 2017) all point to their focus on product quality.

The findings of this study showed that Silver generation emphasizes a number of different qualitative criteria during the purchase decision. This finding underpins the study by Grunert et al. (2010), who found out that both price and quality play a significant role. However, it is important to note that the participants' actual dietary intakes were not measured in this study, and previous studies have shown that Silver generation and older individuals eat fewer grains, fruits, and vegetables than the recommended daily amount (Riediger and Moghadasian, 2008). In contrast, results revealed that sustainability-related factors were considered less important by both generations. This is not in line with a previous study, which implies that Fairtrade plays a significant role in promoting sustainable consumer behavior (Tanner and Wölfing Kast, 2003). The practical implications of eco-certification remain a bit unclear, particularly in terms of added value for both consumers and producers (Delmas and Gergaud, 2021). According to some studies, having too many eco-labels might result in information overload, customer confusion, and mistrust about eco-labels (Brécard, 2014; Lyon and Montgomery, 2015). Other studies link environmental attitudes to general and specific carbon knowledge (Polonsky et al., 2012). Due to this, Seth et al. (2011) suggest that consumers with more global warming knowledge may adjust their behavior to be more environmentally conscious, whereas our data indicate a low emphasis on carbon footprint criteria related to consumption behavior. Moreover, a previous Slovak study revealed that the most important criteria during the purchase of organic food are quality, origin, and price while the least important criteria were brand and producer (Predanocyová et al., 2018).

Thus, consumers' need to identify or understand the importance of ethical certifications on food products is seen as a barrier to their purchase of Fairtrade products (Pedregal and Ozcaglar-Toulouse, 2011). For example, increased eco-friendly consumption was achieved when a more comprehensive, easily interpretable, and standardized eco-friendly label was introduced inside a Belgian experimental food market (Vlaeminck et al., 2014).

10.3389/fsufs.2023.1240750

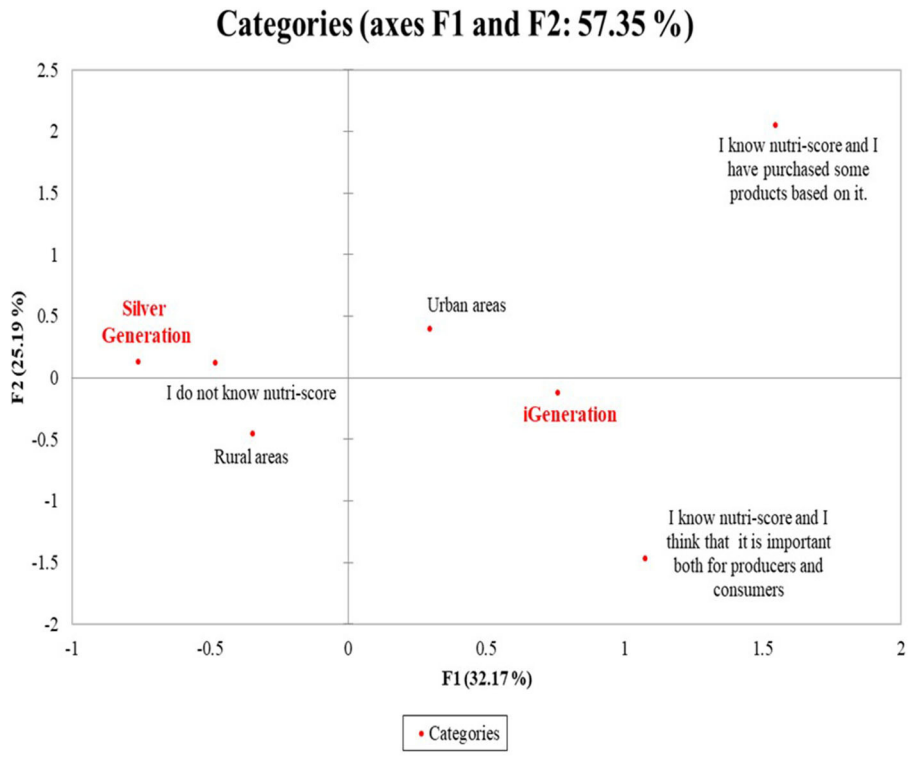

FIGURE 1
Multiple correspondence analysis of the Nutri-Score system awareness, generations, and place of residence. Source: own processing, XLStat.

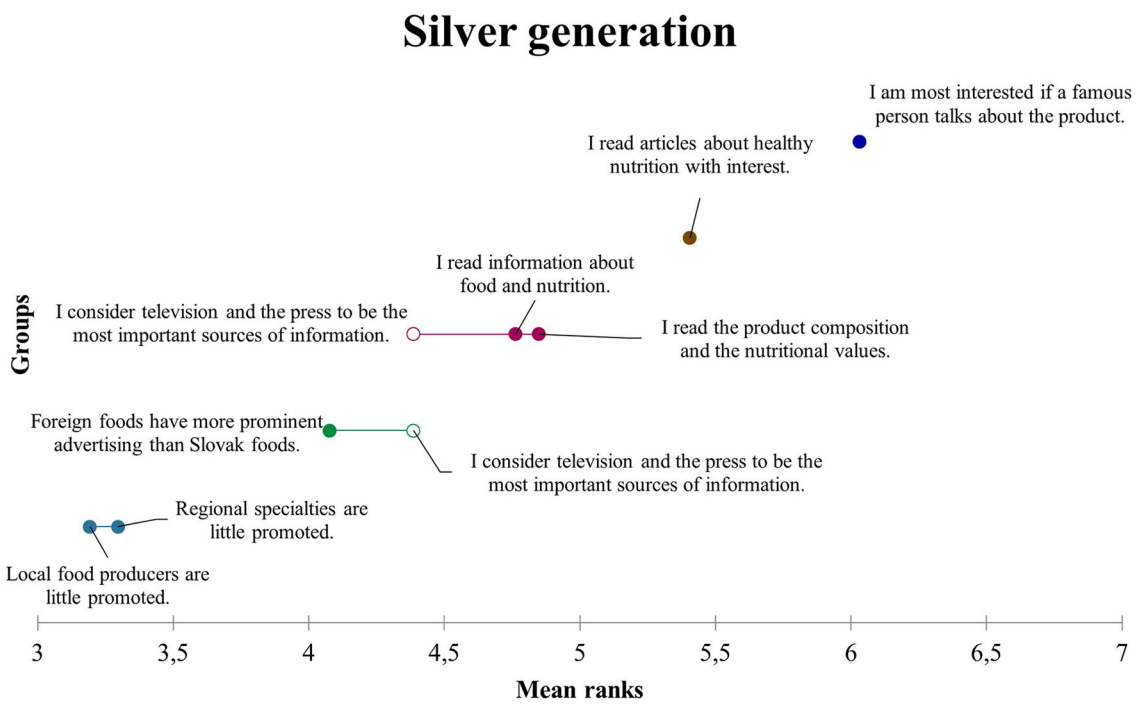

FIGURE 2
Demsar plot for the Silver generation. Source: own processing, XLStat.

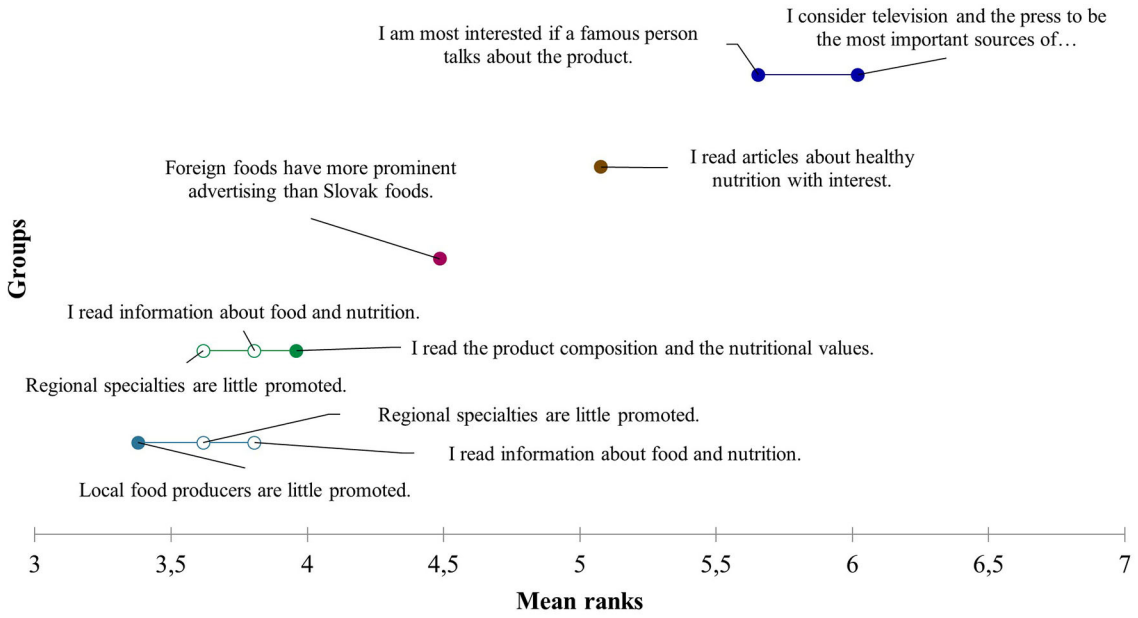

FIGURE 3
Demsar plot for the iGeneration. Source: own processing, XLStat.

Comparably, Becchetti et al. (2019) discovered that increasing the amount of accurate information regarding the corporate social and environmental responsibility of various businesses displayed at the entrances of supermarkets led to an increase in market share. In addition, enhanced and more transparent standards, certification programs, and labeling for bio, eco, or ethical-based products can be the key to increasing the market penetration of these items.

Multiple correspondence analysis reveals that iGens in urban areas are more familiar with the Nutri-Score system than those in rural regions, who are more probable to say they are unaware of it. The prevalence of nutrition labels has become increasingly widespread, as evidenced by Potter et al. (2023) research. The implementation of labeling strategies aimed at promoting healthier choices has been widely adopted across various nations. According to Crockett et al. (2018), systematic reviews have provided evidence supporting the effectiveness of such strategies.

This study demonstrates interesting insights concerning marketing communication within the food market. Unfortunately, both segments confirm insufficient promotion of local food producers and regional specialties. In this context, Martinez (2010) consider the key element for local food promotion to be clear communication covering additional practices such as package labeling, marketing messages, and knowledgeable representatives who provide detailed information about the origin of ingredients. Several scholars have emphasized the significance of enhancing the promotion of regional food by developing business operations through training and experts' advice (Everett and Aitchison, 2008; Bonow and Rytkönen, 2012), utilizing collaborative marketing techniques such as online platforms (Henriksen and Halkier, 2015), using social media, and enhancing interactive activities (Sutinen and Närvänen, 2021). In contrast, research conducted in Spain has indicated that the primary obstacles to purchasing directly from producers are a lack of convenience and challenges in locating trustworthy farmers (González-Azcárate et al., 2021).

In line with our results, the surveyed segment of older adults exhibited variations in the persuasive power of media, which were based on their media consumption habits and the historical prevalence of traditional media during the period of their growth. For example, television was frequently cited by the Silver generation as the main source of information, entertainment, and marketing exposure content (Nieto et al., 2022). However, due to the rising use of social media platforms and the preference of the younger generation, the significance of using digital marketing has dramatically expanded (Boyland et al., 2020; Nöjd et al., 2020).

Furthermore, previous research has demonstrated that nutritional and health claims positively affect consumer preferences and buying behavior (de-Magistris and Lopéz-Galán, 2016; Ballco et al., 2019, 2020). iGens consumers are increasingly demanding transparency in food labeling and asserting their right to make informed decisions regarding their dietary preferences (Clodoveo et al., 2022).

6. Conclusion

6.1. Main outcomes

The study showed significant differences between iGeneration and Silver generation in several aspects related to sustainability.

iGeneration tends to support animal welfare, organic farming, recyclable packaging, and purchasing of new innovative products. On the opposite, the Silver generation indicated higher agreements toward eating predominantly Slovak dishes, reducing food waste, monitoring the expiration date or shelf life, having favorite products, preparing fresh food, and eating regularly several times a day, as well as considering the price of products as the most important thing and Slovak food to be of high quality. In addition, both generations indicated low promotion of local producers and local specialties. The Silver generation tends to consider television and the press to be the most important sources of information while the iGeneration indicated higher agreement toward reading information about food, nutrition, and product composition. In addition, recyclable packaging is a more important criterion for the younger segment.

6.2. Managerial implications

The implications of the study can be classified into three distinct categories. The study's results have demonstrated the importance of marketing and communication approaches within the food sector. Understanding the elements that influence food selection and preference among the iGens and Silver generation can help marketers tailor their communication and promotional efforts. The iGens demographic can be effectively engaged and influenced in their decision-making through the prioritization of sensory attributes, product information on labels, and recommendations. This can be achieved through the utilization of contemporary digital platforms or social media. Conversely, the emphasis of the Silver generation on price highlights the significance of affordability and cost-effectiveness in marketing strategies. Furthermore, the research indicates the necessity of endorsing local and regional food producers as a means of addressing the perceived deficiency in promotion within these regions.

The research sheds light on the criteria that support environmentally conscious dietary practices among iGens and Silver generation. The findings highlight the importance of taking into account personal preferences toward nutritious dietary habits, originality, regional cuisine, environmental stability, and ecological aspects. By strategically aligning marketing initiatives with these identified factors, stakeholders can effectively promote and facilitate the adoption of sustainable food consumption practices among these two generational cohorts. Additionally, the study emphasizes the need for transparent full data regarding product composition and nutritional content.

Policymakers can use the study's findings to inform their decisions about how to regulate the sale and distribution of food. The silver generation's food affordability is only one example of how understanding generational gaps can help policymakers build more effective solutions. To further ensure responsible and ethical practices in food marketing, legislative bodies should incorporate the effect of social media and digital marketing into their regulatory frameworks.

6.3. Limitations

The study's limitations are linked to the reliance on self-reported measures to gather information on attitudes toward food consumption and marketing communication preferences. An additional limitation relates to the national scope of the study, which solely concentrates on two specific age cohorts, namely the iGeneration and the Silver Generation, as well as the fact that the study is representative only based on gender. The potential generalizability of the findings may be constrained by conducting the study solely at a national level, as variations in food consumption behaviors and marketing communication preferences may exist across diverse regions and countries, and is due to cultural, socio-economic, and environmental factors. Furthermore, future studies should not limit themselves to a single country but instead employ multiple countries and cultures. Moreover, consumer attitudes could be analyzed on other sustainability and environmental aspects.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Author contributions

EH: funding, supervision, conceptualization, methodology, data collection, and writing. EJ: methodology, writing, revision, and editing. PŠ: conceptualization, methodology, data collection, data analysis, visualization, writing, revision, and editing. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

References

Abdelradi, F. (2018). Food waste behaviour at the household level: A conceptual framework. *Waste Manage.* 71, 485–493. doi: 10.1016/j.wasman.2017.10.001

Ahn, C., and Lee, C. G. (2022). Effect of NUTRI-SCORE labeling on sales of food items in stores at sports and non-sports facilities. *Prevent. Med. Rep.* 29, 101919. doi: 10.1016/j.pmedr.2022.101919

Asioli, D., Aschemann-Witzel, J., Caputo, V., Vecchio, R., Annunziata, A., Næs, T., et al. (2017). Making sense of the 'clean label' trends: a review of consumer food choice behavior and discussion of industry implications. *Food Res. Int.* 99, 58–71. doi: 10.1016/j.foodres.2017.07.022

Ballco, P., de-Magistris, T., and Caputo, V. (2019). Consumer preferences for nutritional claims: An exploration of attention and choice based on an eye-tracking choice experiment. *Food Res. Int.* 116, 37–48. doi: 10.1016/j.foodres.2018.12.031

Ballco, P., Jurado, F., and Gracia, A. (2020). Do health claims add value to nutritional claims? Evidence from a close-to-real experiment on breakfast biscuits. *Food Quality Prefer.* 85, 103968. doi: 10.1016/j.foodqual.2020.103968

Becchetti, L., Salustri, F., and Scaramozzino, P. (2019). Making information on CSR scores salient: a randomized field experiment. *Oxf. Bull. Econ. Stat.* 81, 1193–1213. doi: 10.1111/obes.12301

Bianchi, C., and Mortimer, G. (2015). Drivers of local food consumption: a comparative study. *Br. Food J.* 117, 2282–2299. doi: 10.1108/BFJ-03-2015-0111

Birch, D., Memery, J., and De Silva Kanakaratne, M. (2018). The mindful consumer: Balancing egoistic and altruistic motivations to purchase local food. *J. Retail. Consumer Serv.* 40, 221–228. doi: 10.1016/j.jretconser.2017.10.013

Bonow, M., and Rytkönen, P. (2012). "Small-scale farm dairies in Jämtland: Ancient practices in modern forms," in *19th International Ethnological Food Research Conference* (Lund, Sweden: Lund University) 81–92.

Boyland, E., and Tatlow-Golden, M. (2017). Exposure, power and impact of food marketing on children: evidence supports strong restrictions. *Eur. J. Risk Regul.* 8, 224–236. doi: 10.1017/err.2017.21

Boyland, E., Thivel, D., Mazur, A., Ring-Dimitriou, S., Frelut, M.-L., Weghuber, D., et al. (2020). Digital food marketing to young people: a substantial public health challenge. *Ann. Nutr. Metab.* 76, 6–9. doi: 10.1159/000506413

Boyland, E. J., Nolan, S., Kelly, B., Tudur-Smith, C., Jones, A., Halford, J. C., et al. (2016). Advertising as a cue to consume: a systematic review and meta-analysis of the effects of acute exposure to unhealthy food and nonalcoholic beverage advertising on intake in children and adults. *Am. J. Clin. Nutr.* 103, 519–533. doi: 10.3945/ajcn.115.120022

Brécard, D. (2014). Consumer confusion over the profusion of eco-labels: Lessons from a double differentiation model. *Resour. Energy Econ.* 37, 64–84. doi: 10.1016/j.reseneeco.2013.10.002

Cai, Q., Duan, M.-J., Dekker, L. H., Carrero, J. J., Avesani, C. M., Bakker, S. J., et al. (2022). Ultraprocessed food consumption and kidney function decline in a population-based cohort in the Netherlands. *Am. J. Clin. Nutr.* 116, 263–273. doi: 10.1093/ajcn/nqac073

Carlsson-Kanyama, A., and González, A. D. (2009). Potential contributions of food consumption patterns to climate change. *Am. J. Clin. Nutr.* 89, 1704S—1709S. doi: 10.3945/ajcn.2009.26736AA

Chandon, P., and Wansink, B. (2012). Does food marketing need to make us fat? A review and solutions. *Nutr. Rev.* 70, 571–593. doi: 10.1111/j.1753-4887.2012.00518.x

Chekima, B., Igau, A., Wafa, S. A. W. S. K., and Chekima, K. (2017). Narrowing the gap: Factors driving organic food consumption. *J. Cleaner Prod.* 166, 1438–1447. doi: 10.1016/j.jclepro.2017.08.086

Clarke, N., Barnett, C., Cloke, P., and Malpass, A. (2007). The political rationalities of fair-trade consumption in the United Kingdom. *Polit. Soc.* 35, 583–607. doi: 10.1177/0032329207308178

Clodoveo, M., Tarsitano, E., Crupi, P., Pasculli, L., Piscitelli, P., Miani, A., et al. (2022). Towards a new food labelling system for sustainable food production and healthy responsible consumption: The Med Index Checklist. *J. Funct. Foods* 98, 105277. doi: 10.1016/j.jff.2022.105277

Crockett, R. A., King, S. E., Marteau, T. M., Prevost, A. T., Bignardi, G., Roberts, N. W., et al. (2018). Nutritional labelling for healthier food or non-alcoholic drink purchasing and consumption. *Cochrane Datab. System. Rev.* 2, CD009315. doi: 10.1002/14651858.CD009315.pub2

Darby, K., Batte, M. T., Ernst, S., and Roe, B. (2008). Decomposing local: a conjoint analysis of locally produced foods. *Am. J. Agric. Econ.* 90, 476–486. doi: 10.1111/j.1467-8276.2007.01111.x

de Bakker, E., Dagevos, H. (2012). Reducing meat consumption in today's consumer society: questioning the citizen-consumer gap. *J. Agric. Environ. Ethics.* 25, 877–894. doi: 10.1007/s10806-011-9345-z

De Cianni, R., Pippinato, L., and Mancuso, T. (2023). A systematic review on drivers influencing consumption of edible mushrooms and innovative mushroom-containing products. *Appetite* 82, 106454. doi: 10.1016/j.appet.2023.106454

De Jans, S., Spielvogel, I., Naderer, B., and Hudders, L. (2021). Digital food marketing to children: How an influencer's lifestyle can stimulate healthy food choices among children. *Appetite* 162, 105182. doi: 10.1016/j.appet.2021.105182

Delmas, M. A., and Gergaud, O. (2021). Sustainable practices and product quality: Is there value in eco-label certification? The case of wine. *Ecol. Econ.* 183, 106953. doi: 10.1016/j.ecolecon.2021.106953

de-Magistris, T., and Lopéz-Galán, B. (2016). Consumers' willingness to pay for nutritional claims fighting the obesity epidemic: the case of reduced-fat and low salt cheese in Spain. *Public Health* 135, 83–90. doi: 10.1016/j.puhe.2016.02.004

Di Vita, G., Spina, D., De Cianni, R., Carbone, R., D'Amico, M., and Zanchini, R. (2023). Enhancing the extended value chain of the aromatic plant sector in Italy: a multiple correspondence analysis based on stakeholders' opinions. *Agric. Food Econ.* 11, 15. doi: 10.1186/s40100-023-00257-8

Di Vita, G., Vecchio, R., Borrello, M., Zanchini, R., Maesano, G., Gulisano, G., et al. (2021). Oh my darling clementine: heterogeneous preferences for sustainable citrus fruits. *Renew. Agric. Food Syst.* 36, 557–568. doi: 10.1017/S174217052100017X

Eckl, M. R., Biesbroek, S., van't Veer, P., and Geleijnse, J. M. (2021). Replacement of meat with non-meat protein sources: a review of the drivers and inhibitors in developed countries. *Nutrients* 13, 3602. doi: 10.3390/nu13103602

Eurostat (2023). *Overweight and obesity - BMI statistics.* Available online at: https://ec.europa.eu/eurostat/statistics-explained/index.php/Overweight_and_obesity-BMI_statistics (accessed May 14, 2023).

Everett, S., and Aitchison, C. (2008). The role of food tourism in sustaining regional identity: a case study of cornwall, South West England. *J. Sustain. Tour.* 16, 150–167. doi: 10.2167/jost696.0

Feagan, R. B., and Morris, D. (2009). Consumer quest for embeddedness: a case study of the Brantford Farmers' Market. *Int. J. Consumer Stud.* 33, 235–243. doi: 10.1111/j.1470-6431.2009.00745.x

Ferguson, B., and Thompson, C. (2020). Why buy local? *J. Appl. Philos.* 38, 104–120. doi: 10.1111/japp.12459

Future Market Insights lnc. (2022). *Convenience Food Market Outlook*. Avauilable online at: https://www.futuremarketinsights.com/reports/global-convenience-foods-market (2022 to 2032) (accessed June 09, 2023).

Garanti, Z. (2019). "Genz willingness to purchase products with geographical indications," in *Akdeniz Üniversitesi Iktisadi ve Idari Bilimler Fakültesi Dergisi* 299–325. doi: 10.25294/auiibfd.649273

González-Azcárate, M., Cruz Maceín, J. L., and Bardají, I. (2021). Why buying directly from producers is a valuable choice? Expanding the scope of short food supply chains in Spain. *Sustain. Prod. Consumpt.* 26, 911–920. doi: 10.1016/j.spc.2021.01.003

Goukens, C., and Klesse, A. K. (2022). Internal and external forces that prevent (vs. Facilitate) healthy eating: Review and outlook within consumer Psychology. *Curr. Opin. Psychol.* 46, 101328. doi: 10.1016/j.copsyc.2022.101328

Grunert, K. G., Wills, J. M., and Fernández-Celemín, L. (2010). Nutrition knowledge, and use and understanding of nutrition information on food labels among consumers in the UK. *Appetite* 55, 177–189. doi: 10.1016/j.appet.2010.05.045

Henriksen, P. F., and Halkier, H. (2015). "Feeding countryside tourists: Exploring collaborative actor strategies in rural Denmark," in *Rural Tourism–An International Perspective* 250–266.

Horská, E., Predanócyová, K., Šedík, P., Grunert, K. G., and Hupková, D. (2023). Consumer perception of functional foods and determinants of functional foods consumption in the Slovak Republic. *Br. Food J.* 125, 2478–2492. doi: 10.1108/BFJ-07-2022-0656

Ikonen, I., Sotgiu, F., Aydinli, A., and Verlegh, P. W. J. (2019). Consumer effects of front-of-package nutrition labeling: an interdisciplinary meta-analysis. *J. Acad. Mark. Sci.* 48, 360–383. doi: 10.1007/s11747-019-00663-9

Ilyuk, V., Block, L., and Haws, K. L. (2019). Justifying by "healthifying": When expected satisfaction from consumption closure increases the desire to eat more and biases health perceptions of unhealthy leftovers. *Appetite* 133, 138–146. doi: 10.1016/j.appet.2018.10.030

Jin, S.-A. A., and Phua, J. (2014). Following celebrities' tweets about brands: the impact of twitter-based electronic word-of-mouth on consumers' source credibility perception, buying intention, and social identification with celebrities. *J. Advert.* 43, 181–195. doi: 10.1080/00913367.2013.827606

Kelly, B., Halford, J. C. G., Boyland, E. J., Chapman, K., Bautista-Castaño, I., Berg, C., et al. (2010). Television food advertising to children: a global perspective. *Am. J. Public Health* 100, 1730–1736. doi: 10.2105/AJPH.2009.179267

Ketelings, L., Benerink, E., Havermans, R. C., Kremers, S. P. J., and de Boer, A. (2023). Fake meat or meat with benefits? How Dutch consumers perceive

health and nutritional value of plant-based meat alternatives. *Appetite* 188, 106616. doi: 10.1016/j.appet.2023.106616

Kloss, L., Meyer, J. D., Graeve, L., and Vetter, W. (2015). Sodium intake and its reduction by food reformulation in the European Union—A review. *NFS J.* 1, 9–19. doi: 10.1016/j.nfs.2015.03.001

Laguna-Camacho, A. (2023). Influence of recalling recent eating episodes on healthy eating: a randomised experiment. *Food Quality Prefer.* 104, 104739. doi: 10.1016/j.foodqual.2022.104739

Laguna-Camacho, A., García-Manjarrez, E., Frayn, M., Knäuper, B., Domínguez-García, M. V., and Escalante-Izeta, E. I. (2018). Perceived healthiness of breakfasts in women with overweight or obesity match expert recommendations. *Open Psychol.* 1, 25–35. doi: 10.1515/psych-2018-0003

Laskowska, A., and Laskowski, J. F. (2022). "Silver" generation at work—implications for sustainable human capital management in the industry 5.0 Era. *Sustainability* 15, 194. doi: 10.3390/su15010194

Lavilla, M., and Gayán, E. (2018). "Consumer acceptance and marketing of foods processed through emerging technologies," in *Innovative Technologies for Food Preservation* 233–253. doi: 10.1016/B978-0-12-811031-7.00007-8

Lerro, M., Vecchio, R., Nazzaro, C., and Pomarici, E. (2019). The growing (good) bubbles: insights into US consumers of sparkling wine. *BFJ.* 122, 2371–2384. doi: 10.1108/BFJ-02-2019-0139

Lyon, T. P., and Montgomery, A. W. (2015). The means and end of greenwash. *Organiz. Environ.* 28, 223–249. doi: 10.1177/1086026615575332

Martinez, S. (2010). *Local Food Systems; Concepts, Impacts, and Issues*. Washington, DC: Diane Publishing.

Martins, I. B. A., Oliveira, D., Rosenthal, A., Ares, G., and Deliza, R. (2019). Brazilian consumer's perception of food processing technologies: A case study with fruit juice. *Food Res. Int.* 125, 108555. doi: 10.1016/j.foodres.2019.108555

McDonald, A., and Braun, V. (2022). Right, yet impossible? Constructions of healthy eating. *SSM – Qualit. Res. Health* 2, 100100. doi: 10.1016/j.ssmqr.2022.100100

Miranda-de la Lama, G. C., Estévez-Moreno, L. X., Villarroel, M., Rayas-Amor, A. A., María, G. A., and Sepúlveda, W. S. (2019). Consumer attitudes toward animal welfare-friendly products and willingness to pay: Exploration of Mexican market segments. *J. Appl. Animal Welfare Sci.* 22, 13–25. doi: 10.1080/10888705.2018.1456925

Monteiro, C. A., Cannon, G., Moubarac, J.-C., Levy, R. B., Louzada, M. L. C., and Jaime, P. C. (2017). The UN Decade of Nutrition, the NOVA food classification and the trouble with ultra-processing. *Public Health Nutr.* 21, 5–17. doi: 10.1017/S1368980017000234

Monteiro, C. A., Levy, R. B., Claro, R. M., Castro, I. R. R., and de Cannon, G. (2010). A new classification of foods based on the extent and purpose of their processing. Cad. *Saúde Pública* 26, 2039–2049. doi: 10.1590/S0102-311X2010001100005

Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., and Hoving, C. (2013). A new dimension of health care: systematic review of the uses, benefits, and limitations of social media for health communication. *J. Med. Internet Res.* 15, e85. doi: 10.2196/jmir.1933

Morris, C., and Buller, H. (2003). The local food sector: a preliminary assessment of its form and impact in gloucestershire. *Br. Food J.* 105, 559–566. doi: 10.1108/00070700310497318

Moubarac, J.-C., Parra, D. C., Cannon, G., and Monteiro, C. A. (2014). Food classification systems based on food processing: significance and implications for policies and actions: a systematic literature review and assessment. *Curr. Obes. Rep.* 3, 256–272. doi: 10.1007/s13679-014-0092-0

Newman, C. L., Burton, S., Andrews, J. C., Netemeyer, R. G., and Kees, J. (2017). Marketers' use of alternative front-of-package nutrition symbols: An examination of effects on product evaluations. *J. Acad. Mark. Sci.* 46, 453–476. doi: 10.1007/s11747-017-0568-z

Nieto, C., Jáuregui, A., Contreras-Manzano, A., Potvin Kent, M., Sacks, G., White, C. M., et al. (2022). Adults' exposure to unhealthy food and beverage marketing: a multi-country study in Australia, Canada, Mexico, the United Kingdom, and the United States. *J. Nutr.* 152, 25S—34S. doi: 10.1093/jn/nxab449

Nöjd, S., Trischler, J. W., Otterbring, T., Andersson, P. K., and Wästlund, E. (2020). Bridging the valuescape with digital technology: A mixed methods study on customers' value creation process in the physical retail space. *J. Retail. Consumer Serv.* 56, 102161. doi: 10.1016/j.jretconser.2020.102161

Özkan, M. (2017). Generation Z - the global market's new consumers- and their consumption habits: generation z consumption scale. *Europ. J. Multidiscip. Stud.* 5, 150. doi: 10.26417/ejms.v5i1.p150-157

Pedregal, V. D., and Ozcaglar-Toulouse, N. (2011). Why does not everybody purchase fair trade products? The question of the fairness of fair trade products' consumption for consumers1. *Int. J. Consumer Stud.* 35, 655–660. doi: 10.1111/j.1470-6431.2010.00990.x

Pliner, P., and Hobden, K. (1992). Development of a scale to measure the trait of food neophobia in humans. *Appetite* 19, 105–120. doi: 10.1016/0195-6663(92)90014-W

Pole, A., and Kumar, A. (2015). Segmenting CSA members by motivation: anything but two peas in a pod. *Br. Food J.* 117, 1488–1505. doi: 10.1108/BFJ-12-2014-0405

Polenzani, B., Riganelli, C., and Marchini, A. (2020). Sustainability perception of local extra virgin olive oil and consumers' attitude: a new Italian perspective. *Sustainability* 12, 920. doi: 10.3390/su12030920

Polonsky, M. J., Vocino, A., Grau, S. L., Garma, R., and Ferdous, A. S. (2012). The impact of general and carbon-related environmental knowledge on attitudes and behaviour of US consumers. *J. Market. Manage.* 28, 238–263. doi: 10.1080/0267257X.2012.659279

Potter, C., Pechey, R., Cook, B., Bateman, P., Stewart, C., Frie, K., et al. (2023). Effects of environmental impact and nutrition labelling on food purchasing: An experimental online supermarket study. *Appetite* 180, 106312. doi: 10.1016/j.appet.2022.106312

Predanocyová, K., Šedík, P., Kubicová, L., and Horská, E. (2018). Consumption and offer of organic food on the slovak market. *Acta Univers. Agric. Silvic. Mendel. Brunensis* 66, 1315–1323. doi: 10.11118/actaun201866051315

Qutteina, Y., De Backer, C., and Smits, T. (2019). Media food marketing and eating outcomes among pre-adolescents and adolescents: A systematic review and meta-analysis. *Obesity Rev.* 20, 1708–1719. doi: 10.1111/obr.12929

Rabadán, A., and Bernabéu, R. (2021). A systematic review of studies using the Food Neophobia Scale: Conclusions from thirty years of studies. *Food Quality Prefer.* 93, 104241. doi: 10.1016/j.foodqual.2021.104241

Ragaert, P., Verbeke, W., Devlieghere, F., and Debevere, J. (2004). Consumer perception and choice of minimally processed vegetables and packaged fruits. *Food Quality Prefer.* 15, 259–270. doi: 10.1016/S0950-3293(03)00066-1

Reardon, T., Echeverria, R., Berdegu,é, J., Minten, B., Liverpool-Tasie, S., Tschirley, D., et al. (2019). Rapid transformation of food systems in developing regions: Highlighting the role of agricultural research andamp; innovations. *Agric. Syst.* 172, 47–59. doi: 10.1016/j.agsy.2018.01.022

Recchia, L, Cappelli, A, Cini, E, Garbati Pegna, F, and Boncinelli, P. (2019). Environmental sustainability of pasta production chains: an integrated approach for comparing local and global chains. *Resources*. 8, 56. doi: 10.3390/resources8010056

Reisch, L., Eberle, U., and Lorek, S. (2013). Sustainable food consumption: an overview of contemporary issues and policies. *Sustainability* 9, 7–25. doi: 10.1080/15487733.2013.11908111

Riediger, N. D., and Moghadasian, M. H. (2008). Patterns of fruit and vegetable consumption and the influence of sex, age and socio-demographic factors among canadian elderly. *J. Am. Coll. Nutr.* 27, 306–313. doi: 10.1080/07315724.2008.10719704

Rodrigues, A. C., Carvalho, H., Caetano, A., and Santos, S. C. (2022). Micro-firms way to succeed: How owners manage people. *J. Business Res.* 150, 237–248. doi: 10.1016/j.jbusres.2022.05.062

Rosenfeld, D. L., and Burrow, A. L. (2017). The unified model of vegetarian identity: A conceptual framework for understanding plant-based food choices. *Appetite* 112, 78–95. doi: 10.1016/j.appet.2017.01.017

Schösler, H., Boer, J., de, and Boersema, J. J. (2012). Can we cut out the meat of the dish? Constructing consumer-oriented pathways towards meat substitution. *Appetite* 58, 39–47. doi: 10.1016/j.appet.2011.09.009

Šedík, P., Horska, E., Skowron-Grabowska, B., and Illés, C. B. (2018). Generation marketing in strategic marketing management: case study of honey market. *Polish J. Manage. Stud.* 18, 326–337. doi: 10.17512/pjms.2018.18.1.24

Šedík, P., Hudecová, M., and Predanócyová, K. (2023). Exploring Consumers' Preferences and Attitudes to Honey: Generation Approach in Slovakia. *Foods* 12, 1941. doi: 10.3390/foods12101941

Seth, J. N., Sethia, N. K., and Srinvas, S. (2011). Mindful consumption: A customer-centric approach to sustainability. *J. Acad. Market. Sci.* 39, 21–39. doi: 10.1007/s11747-010-0216-3

Smith, R., Kelly, B., Yeatman, H., and Boyland, E. (2019). Food marketing influences children's attitudes, preferences and consumption: a systematic critical review. *Nutrients* 11, 875. doi: 10.3390/nu11040875

Sohail, M. S., Hasan, M., and Sohail, A. F. (2020). The impact of social media marketing on brand trust and brand loyalty. *Int. J. Online Market.* 10, 15–31. doi: 10.4018/IJOM.2020010102

Spendrup, S., and Hovmalm, H. P. (2022). Consumer attitudes and beliefs towards plant-based food in different degrees of processing – The case of Sweden. *Food Quality Prefer.* 102, 104673. doi: 10.1016/j.foodqual.2022.104673

Stagl, S. (2002). Local organic food markets: potentials and limitations for contributing to sustainable development. *Empirica* 29, 145–162. doi: 10.1023/A:1015656400998

Su, C., Tsai, C., Chen, M., and Lv, W. Q. (2019). U.S. sustainable food market generation Z consumer segments. *Sustainability* 11, 3607. doi: 10.3390/su111 33607

Sutinen, U.-M., and Närvänen, E. (2021). Constructing the food waste issue on social media: a discursive social marketing approach. *J. Market. Manage.* 38, 219–247. doi: 10.1080/0267257X.2021.1966077

Szymkowiak, A., Borusiak, B., Pierański, B., Kotyza, P., and Smutka, L. (2022). Household food waste: the meaning of product's attributes and food-related lifestyle. *Front. Environ. Sci.* 10. 918485. doi: 10.3389/fenvs.2022.918485

Tanner, C., and Wölfing Kast, S. (2003). Promoting sustainable consumption: Determinants of green purchases by Swiss consumers. *Psychol. Market.* 20, 883–902. doi: 10.1002/mar.10101

Thaker, H. M. T., Khaliq, A., Mand, A. A., Hussain, H. I., Thaker, M. A., and Pitchay, A. (2020). Exploring the drivers of social media marketing in Malaysian Islamic banks. *J. Islamic Market*. 12, 145–165. doi: 10.1108/JIMA-05-2019-0095

van der Bend, D. L. M., Jakstas, T., van Kleef, E., Shrewsbury, V. A., and Bucher, T. (2022). Making sense of adolescent-targeted social media food marketing: A qualitative study of expert views on key definitions, priorities and challenges. *Appetite* 168, 105691. doi: 10.1016/j.appet.2021.105691

Vermeir, I., and Verbeke, W. (2006). Sustainable Food Consumption: Exploring the Consumer "Attitude – Behavioral Intention" Gap. *J. Agric. Environ. Ethics* 19, 169–194. doi: 10.1007/s10806-005-5485-3

Vermeir, I., Weijters, B., De Houwer, J., Geuens, M., Slabbinck, H., Spruyt, A., et al. (2020). Environmentally sustainable food consumption: a review and research agenda from a goal-directed perspective. *Front. Psychol.* 11, 1603. doi: 10.3389/fpsyg.2020.01603

Vlaeminck, P., Jiang, T., and Vranken, L. (2014). Food labeling and eco-friendly consumption: Experimental evidence from a Belgian supermarket. *Ecol. Econ.* 108, 180–190. doi: 10.1016/j.ecolecon.2014.10.019

Westgard, B., and Dahl, E. (2013). Healthy neighborhoods and the emergency department: is neighborhood healthy food availability associated with emergency department presentations for diet-related illness? *Ann. Emerg. Med.* 62, S73. doi: 10.1016/j.annemergmed.2013.07.485

Whybrow, S., Hollis, J. L., and Macdiarmid, J. I. (2017). Social deprivation is associated with poorer adherence to healthy eating dietary goals: analysis of household food purchases. *J. Public Health* 40, e8–e15. doi: 10.1093/pubmed/fdx007

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., et al. (2019). Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *Lancet* 393, 447–492. doi: 10.1016/S0140-6736(18)31788-4

World Bank (2003). *World Development Report 2003: Sustainable Development in a Dynamic World–Transforming Institutions, Growth, and Quality of Life*. Available online at: http://hdl.handle.net/10986/5985