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Consumer, Retailer, and Producer Green Orientation as a Marketing Driver: An Empirical Study in an Urban Food Market

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Abstract: This article analyzes consumer, local producer, and retailer green orientation regarding local food production and consumption in an urban food market context. This approach extends previous research, mainly focused on green orientation of consumers, by including a broader analysis of the perceptions of different relevant stakeholders. For this purpose, an empirical study was carried out in the context of a local urban market of a medium-sized city through the application of a survey to producers, retailers, and consumers, which included a green orientation scale. Results showed that local consumers and local retailers have a similar high level of green orientation, while local producers are less green-oriented. These conclusions highlight the importance of the green "values" in local communities and the need to reinforce marketing efforts and specific training programs to different stakeholders, namely local producers focused on sustainability.

Keywords: marketing; green orientation; sustainability; urban food markets; local products

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1. Introduction

Local and green food production and consumption are relevant to preserve social, economic, and cultural activities. The valorization of sustainable productions standards and consuming behaviors are crucial societal priorities in terms of Substantiable Development [1] supported by local governments and by the United Nations Sustainable Development Goals (SDG), especially SDG 3 (good health and well-being), SGD 8 (decent work and economic growth), SGD 11 (sustainable cities and communities), SGD 12 (responsible consumption and production), and goal 15 (life on land). The consumers, governments, and companies' interest in sustainable actions and policies is an upward trend with growing concern of their consumer, production, and regulation implications on ecological and human sustainable consequences [2]. Local small retail is a relevant element in the preservation of many city centers, giving character to urban spaces that contribute to the image that local population and foreigners create about these places [3]. Municipal markets are a traditional format of retail that include many local small retailers (traders) operating in a single location, place, or building. These markets are frequently associated with important historical and central buildings and a substantial focus on local and traditional producers/suppliers. Most previous research studies have been centered on consumers' sustainable behaviors, which include the development and validation of green consumer orientation scales [4–6].

This paper aims to contribute to the discussion of the Green Orientation (GO) topic through analysis of the customer and company behaviors regarding buying, consuming, and corporate decisions that consider the potential positive environmental and social

impact. In order to achieve this, a quantitative empirical study was conducted in a medium-sized city in Portugal with a very important urban food market (Mercado do Livramento in Setúbal). Based on the Green Scale (GS) approach proposed by Haws, Winterich, and Naylor [7] to capture consumer attitudes and behaviors regarding environmental issues, our study contribution lies in analyzing and comparing the GO of small local producers, retailers, and consumers. In the empirical study, the consumer GO scale was applied to three different groups of stakeholders—local producers (farmers selling their agricultural products in Mercado do Livramento), consumers, and local traders (small retailers that resell products in Mercado do Livramento).

Regarding the structure of the paper, in the next section the literature review centered on sustainable consumption is presented—local food products and local retailers—focused on an urban food market and on the activities of small producers that sell their products inside the market space. The methodological section describes the empirical study's procedures and samples. The following section is dedicated to the presentation and discussion of results, with the last part being the conclusions and implications.

2. Theoretical Approach

Consumption is a social, cultural, and economic process of choosing goods that reflect current opportunities and constraints [8]. Green orientation, green consumption, responsible consumption, or environmentally friendly consumer behaviors are purchasing and consumption behaviors leading to the satisfaction of individuals' needs, joined with a concern for the welfare of society and a more rational and efficient use of natural resources [9,10]. In this context, green-oriented consumers choose to purchase products by considering their perception of the environmental impacts of those choices, the economic benefits, green reliability, and green "appearance" of the product [11].

The consumption of local products is a fast-growing trend that may have a meaningful impact on society as a part of rural development strategies, food security, and local distribution patterns [8]. The consumption of local products is socially, economically, environmentally, and culturally more sustainable than the existing food chain that dominates today's agri-food system [12]. Although there are considerable benefits from sourcing food locally, it has yet to become a complete alternative to a globalized economy, as local ecosystems cannot provide a large diversity of products, nor can they provide several existing products in the volume demanded by contemporary diets [13]. Change is crucial in the paradigm of production that has embedded sustainability in products and services provided, and individual consumption is now viewed as a key driver or incentive for this change [13].

Consumers that express concern about the environment represent a tremendous opportunity and challenge for both green producers and retailers [14]. Many local producers and retailers still do not use the best environmental practices, and consumers are not always suitably educated on how to discern practical organic and sustainable principles, and even fundamental terms such as "organic" and "sustainable" are frequently misunderstood [15].

Local food products may be accessible to local customers through different marketing sales channels, such as large retail formats such as hypermarkets and supermarket chains, and through Short Food Supply Chain (SFSC) distribution channels, such as small independent retailers, including butchers, bakers, artisan food outlets, food-cooperatives, on-farm sales, farm shops, farmers' markets, direct sales, box schemes, and others [13,16]. Nowadays, the appeal of SFSC is growing, justified by its ability to address new consumers' habits and purchasing motivations [16].

Urban food markets are a type of SFSC distribution channel that coexist with mass food distribution retail formats, allowing closer geographical proximity, a deeper involvement of consumers, and a potentially more profound sustainable approach [17]. More recently, there has also been considerable development of e-commerce platforms (e-retailers) and even home delivery systems developed during the COVID-19 pandemic. For

example, during the pandemic, delivery services such as Uber Eats or Glovo lined producers and consumers and became increasingly popular. The development of such direct marketing channels allows a more direct link between small producers and consumers, reducing the relevance of 'middlemen' in the food supply chain, with significant advantages for both parties [12]. Small local producers may sell their products via specific marketing channels such as farmer markets, urban food markets, producers' websites and on social network sites. Consumers may obtain as much information as they need about the products, promoting deeper relations and commitment.

Many consumers perceive producers and their "green" messages as trustworthy and in other positive ways. However, there is no guarantee that all the products in farmers' markets or other alternative food networks are produced locally or organically [15]. Local food production systems do not necessarily guarantee food security or have a lower carbon footprint than ordinary existent food systems [15]. Kim et al. [18] showed that credibility was the most important determinant of green consumption behavior, including consumer beliefs if green consumption behavior actually produces the desired outcomes, such as better health, cleaner environment, or whether consumers feel that the information regarding green products is accurate and trustworthy.

Sustainability Orientation and Green Consumption

Sustainability orientation refers to the individual level of concern about the environmental protection and social responsibility, including items that measure the individual attitudes and convictions and personal traits on environmental protection and social responsibility [19]. Zimmer et al. [20] described consumer environmental concern as "a general concept that can refer to feelings about many different green issues, as the concern for waste, wildlife, biosphere, health and energy, among others''.

Research interest in environmental values and issues has increased in the last few decades and become a relevant area of research for the social sciences [21]. Green consumption orientation is perceived as being intertwined with long-term sustainable development [9]. Although consumers' behaviors remain complex and challenging to understand, there is evidence that green consumers are very susceptible to suppliers' corporate image and transparent information and that increased consumers consciousness and knowledge have significantly influenced consumption patterns [22]. That research has been mostly oriented to study green consumers' profiles identifying the factors that influence consumer behaviors. Previous studies have often applied demographic segmentations to explain the differences in consumer behaviors, examining variables, such as gender, age, educational level, and family size. When making consumption decisions, citizens develop actions that are consistent with their environmental beliefs, influencing the perceptions and their own self-identity regarding their green orientation [5].

Companies' green innovation behavior—producers' and retailers' green orientation—is necessary to transform enterprises and enhance green development [23]. The search for a competitive advantage through more environmentally friendly products and this green orientation may also impact their production and logistic decisions and actions, balancing environmental and economic performance. According to Botezat et al. [24], Gholamrezai et al. [25], and Akhtar et al. [26], there are different factors affecting sustainability-oriented responsible entrepreneurship and producers' orientation. They are related to marketing demand for greener products, producers' higher level of ecological education and training, individuals' attitude, passion, awareness regarding sustainability, and economic, governmental and societal pressure.

Retailers play a leading role in driving sustainability due to their interaction between the natural and technological resources from the production and logistics chain and consumer buying decisions and preferences. Retailer assortment and the retailer interactions with consumers, namely through employees, will influence buying decisions and preferences and will guide all the supply chain, including production and logistics standards [27]. Simultaneously, there is the critical consumer pressure to all the supply chain

stakeholders—producers, governments, and retailers—based on the fact that socio-environmental responsibility may be a relevant stimulus which directly impacts consumer loyalty and brand image,

Many producers and retailers develop their marketing activities based on a sustainable orientation, implementing rational production and logistic and promotional standards, increasing the competencies of consumers on making conscious choices and contributing to the creation of a culture of sustainable consumption throughout society [5].

Many studies on consumers' environmental concerns have been conducted in recent years. Nevertheless, there is a need to examine the progression of consumers' attitudes, intentions, and behavior towards green products [28] because a growing number of consumers are increasingly willing to spend money to support moral and ethical causes as they relate to ethical consumption [15]. The consumption of local food products is a significant marketing trend that has been positively influenced by several factors [29].

Taufique et al. [10] developed a comprehensive and systematic review of the literature on constructs for assessing consumers' environmental responsibility, having identified six major elements: "knowledge and awareness of the environment"; "attitude and behaviors"; "green consumer value" "emotional affinity toward nature", "willingness to act", and "action taken/environment related past behavior". Analyzing previous research published since the 1970s, on these topics and other, such as "emotional affinity toward nature" and "green consumer value", the authors identified that most studies were written in after 2000.

Haws et al. [7] proposed and developed the GS, a six-item measure scale to capture consumer' attitudes and behaviors regarding environmental issues. This research has been extensively cited and used in a wide range of research over recent years related to the study of green consumers attitudes and behaviors. The same authors concluded that stronger green consumption values increase their preference for environmentally friendly products, and those individuals are oriented towards protecting resources at both the environmental and personal levels. This study provides a reliable contribution to better predict consumers' preferences for environmentally friendly products.

3. Materials and Methods

3.1. Case Study—Mercado do Livramento de Setúbal

This study focused on an important local food market in Portugal—Mercado do Livramento de Setúbal (MLS)—in Setúbal. Setúbal is a medium-sized city with a population of about 120,000 people [30] in a coastal region in the South of Portugal, rich in fish, agricultural and dairy products, and wine.

MLS was inaugurated in 1876 and has a central and significant relevance for the city of Setúbal and its surrounding region in economic, social, and touristic terms. This is probably the most important traditional municipal market in Portugal, given its level of awareness, its commercial activity, and its local relevance. MLS was even considered to be one of the 10 most important fish markets in the world in 2016 by the newspaper, *USA Today*.

MLS is owned and managed by the city municipality (local government) which is responsible for adequately organizing and maintaining the building properly, controlling the commercial and technical processes, and promoting activities that may retain and attract customers and sellers. This public governance model is particularly complex due to the requirements for standards and shared solutions for stakeholders with distinct priorities and goals and due to the local authorities' need for specific competencies and resources.

At MLS, customers find a wide variety of products, mainly fresh fish, vegetables, fruits, and meat, but also some local products, bread, cheese, wine, flowers are available, among other local offerings. Small independent traders mainly sell these products that may be resold (retailers) or local producers that use the market to sell their produced goods. Additionally, there are 42 "traditional" stores around the building where some

more prominent retailers maintain a presence—mainly cafeterias, restaurants, and butchers.

In this research, the analysis was focused on the activity of the 93 producers that sell their products at MLS and the 136 small retailers that use MLS to resell products that they previously bought from other economic agents [31].

Producers use the MLS exclusively to sell fruits and vegetables they grow in small local properties around the market. They have a central importance in the MLS due to the quality, exclusivity, and diversity of their products, as well as their experience and know-how and the authentic experience they provide to visitors. Producers that regularly sell their products at MLS are mostly female (62%) and middle-aged or elderly (90% are at least 50 years old). They are traders, and 29 of the producers have at least 9 years of academic education. The majority have been selling at MLS on some specific days for more than 20 years, and 30.5% have worked there for less than 30 years. They usually work alone on minimal agricultural plots and sell their productions on their property, or through home deliveries (60%), or to small local retailers (34%).

MLS retailers are small economic agents that resell products at MLS daily. Many retailers sell fresh fish (72) and fruits and vegetables (41). They pay a rent to operate in a specific location inside the MLS and they must follow several rules, regarding the timetables, merchandising, quality, and technical requirements, among others. These traders are primarily females (54%) and of older generations (72.63% are at least 50 years old) and almost 70% of the traders have at least 9 years of formal instruction. Most of them have been working in this market for more than 20 years, and 50.5% have worked there for less than 30 years. Additionally, 85% of these traders work exclusively at the MLS market.

Most MLS costumers are at least 35-year-old and live/work less than 10 min away from the MLS (40%) or 10 to 20 min (33%), normally by car. They usually spend between 10 and 30 euros per visit, mainly on fruits, vegetables, and fish. In general, they are very satisfied with their shopping experiences (63%), mainly with the quality and diversity of the products. A recent focus group study found important consumer insights related to the products sold, considering the market the "Main quality reference in the city". The variety of products is also one of the main attraction factors of the market as is familiarity with the spot. As one visitor reported: "I accompanied my grandmother to the Market and sometimes I felt uncomfortable because the merchants were always asking me questions and they were very long … but now I really like it, I'm a regular customer" [31].

MLS managers develop specific efforts to promote it to national and international audiences (tourists). They focus on the building's history, traditions, and social centrality; on the richness of its offerings, especially in fish and high-quality local agricultural products; on links of the MLS to the region's gastronomic tourism itinerary; and on the MLS as an educational space that values and integrates the entire community and local traditions. These marketing efforts are usually developed in conjunction with traders, who are an essential element of this market.

3.2. Research Design

This study analyzed consumers, local producers, and local retailers' green orientation regarding local food production and consumption in the context of an urban food market. In the context of the prior literature review and local debates, the authors decided to apply a questionnaire to three relevant stakeholders to address the research problem: local consumers, local producers, and local small traders due their relevance to the selling and buying process. Generally, a food supply chain is composed of four major actors: farmers, food processors, food and consumers [32]. However, in urban food markets where the product assortment does not include processed products, food processors were not considered among the most relevant stakeholders.

The questionnaire was based on Haws et al. [7], including standard sections related to (1) general demographic questions (such as gender, age, level of education, occupation, and family income) and (2) respondents' attitudes and behaviors regarding

environmental issues. A 6-item scale with 5-point Likert-scale response options (1—totally disagree to 5—totally agree) and some questions regarding intentions to produce/sell and consume more local products in the future and perceptions regarding green orientation was designed.

For each one of the respondents' groups, the Haws et al. [7] original GS consumption orientation approach was applied in the questionnaires. This measuring scale was originally developed to measure consumers' perceptions, and in the present study it was directly included in the consumer questionnaire. In the traders' and producers' questionnaires, it was necessary to adapt three of the six questions of the original GS to better capture the producers' and traders' perceptions and behaviors. The adaptation of these three items was widely discussed in the research group, and their formulation was tested within a group of nine respondents—producers and traders from MLS—during a special session held in September 2020 to obtain insights into this research, including pretesting the survey.

With this process, it was possible to introduce and check specific changes in questions' lexicon, which raised some doubts among the interviewees. The original sentence "It is important to me that the products I use do not harm the environment" (GO1), when used in the traders' and producers' questionnaire, was replaced with "It is important to me that the products I sell/produce do not harm the environment".

The original question "I consider the potential environmental impact of my actions when making many of my decisions" (GO2), when used in the traders' and producers' questionnaire, was "I consider the potential environmental impact of my actions when making many of my consumption/production/commercialization decisions". The original question "My purchase habits are affected by my concern for our environment" (GO3) was changed to "My production/selling habits are affected by my concern for our environment".

The adaptation of the GS to analyze traders' and producers' practices and behaviors is a considerable added value of this research due to their impact on consumers' buying process. In fact, the literature suggests that brand environmental sustainability, including socio-environmental responsibility may be a relevant stimulus on brand attractiveness and consumer loyalty and that positive experiences in a retail store have a significant contribution to the individual development of a certain level of affection, agreeableness, and trust [33].

3.3. Data and Samples

The research instrument was a structured questionnaire, designed to collect the data, considering a population of about 120,000 people in the municipality, 93 producers (small farmers that sell their products in MLS), and 136 small retailers. The data regarding consumers' responses were obtained through telephone interviews in January and February of 2021, according to quotas of gender, age, place of residence (according to local population distribution), and buying frequency at MLS. The data were collected by professional interviewers that were instructed by the authors before starting the field work. The option for non-self-administered or online surveys was made due to the limited academic education and digital competences of a considerable proportion of consumers, producers, and traders, and due to the interaction restrictions associated with COVID-19 and the limited availability of many of these audiences for self-administered surveys.

The total valid sample consisted of 405 regular customers of MLS (from an initial sample of 500 participants, including non-regular consumers), 52 producers (56% of the universe of the small producers that sell part of their production in MLS), and 93 traders (68% of the respective universe). Participation was entirely voluntary, and incomplete questionnaires were excluded.

The collected data were revised, compiled, and edited, before using the IBM SPSS 25 package software for conducting the quantitative statistical analysis. The statistical analysis was conducted using traditional descriptive techniques and inferential hypothesis

testing using non-parametric tests, since these were the adequate techniques for the sample and measuring options used in the questionnaire.

Regarding the sample profile, most of the city inhabitants that participated in this study (Table 1) are older than 18 years of age (94%) and frequently visit MLS (1% say that they visit MLS at least 3 times a year). Most of the customers are at least 35 years-old (79%) and have medium–high income: 11% belong to A/B socioeconomic class, with 67% belonging to C1. Notwithstanding their frequent visits to MLS, these individuals buy most of their produce in supermarkets. The majority of the producers that participated in this study are over 50 years old (90%), are female (60%), have secondary (60%) or middle school educations (31%), and live in small families (1 to 2 persons). Most of the traders are also women (61%), over 40 years old (74%), and mostly live in families with 1 to 3 persons (69%).

Table 1. Descriptive statistics by group of participants.

		Producers (N = 52)	**Traders (N = 93)**	**Consumers (N = 405)**
Gender	Male	40%	39%	45%
	Female	60%	61%	55%
Education	University	8%	1%	37%
	12th grade	60%	34%	36%
	6th to 9th grade	31%	39%	24%
	Primary School			
	No education			0.25%
Family	1 Person	17%	17%	7%
	2 Persons	50%	44%	27%
	3 Persons	15%	18%	33%
	4 persons	8%	15%	25%
	5 persons or more	10%	5%	7%

Source: authors' own elaboration based on survey output.

4. Results

Green Scale and Green orientation of Consumers, Traders, and Producers

Considering that GS dimension is composed of the mentioned GO individual items, a composite GS score was computed. This GS composite score used the same weight for each one of the six items, not using any dominant one, since this is the less controversial option when there is no supporting previous literature [34]. The GS reliability test was conducted through Cronbach's alpha, which is a widely used technique to assess the internal consistency of psychometric scales [35]. For the entire sample, the alpha value was 0.854. Analyzing this statistic in each group of respondents, a good level of internal consistency was found. In fact, in the regular consumer group, the alpha was 0.842; in the trader group, the alpha was 0.827; and in the producer group, the alpha was 0.845. These internal consistency levels are essential because it is evidence that the GS proposed by Haws et al. [7] may also be applied in this situation

Table 2 presents the usual descriptive statistics (mean, median, and standard deviation) to characterize the GS and GO variables for each group studied. We note that the GS mean for producers was 3.50 (standard deviation 0.758), and the median was 3.33. The GS traders' mean was 4.25 (standard deviation 0.675), and the median was 4.33. The consumers' mean was 4.22 (standard deviation of 0.620), and the median was 4.33. Deepening the analysis, we tested whether in each group the GS median would be different from the neutral/middle point of the responses option (i.e., threshold 2.5). In each group, the null hypothesis of the median being equal to 2.5 was rejected. In fact, in the consumer group, the one-sample Wilcoxon signed-rank test indicated that the median was significantly

different from 2.5, Z = 17.355, $p = 0.000$. In the producer group, the same was verified, with the test Z = 6.066, $p = 0.000$. In the trader group, the same value was observed, Z = 8.4346, $p = 0.000$.

Summarizing, producers may be less oriented to environmental concerns than traders and consumers. Due to this, the three groups were compared in pairs, separately, analyzing if there would be rejections of the null hypothesis of the median and Mann–Whitney tests for each independent variable (GS score and GO individual items). Those tests (the Mann–Whitney test and the Median test) were used as they are good non-parametric statistical techniques to test differences between groups using ordinal variables in samples without normal distributions, which is the situation in analysis [36], as seen in Table 3.

Table 2. Descriptive statistics of GS and GO by group of participants.

	Producers (N = 52)			**Traders (N = 93)**			**Consumers (N = 405)**		
Variable *	**Mean**	**Median**	**Std. Dev.**	**Mean**	**Median**	**Std. Dev.**	**Mean**	**Median**	**Std. Dev.**
GS Composite Score	3.33	3.50	0.758	4.25	4.33	0.675	4.21	4.33	0.620
GO1 It is important to me that the products I use/produce/sell do not harm the environment.	3.44	3.00	0.850	4.17	5.00	1.100	4.49	5.00	0.688
GO2 I consider the potential environmental impact of my actions when making many of my consumption/production/commercialization decisions	3.37	3.00	0.971	4.22	4.00	0.870	4.09	4.00	0.854
GO3 My purchase/producing/selling habits are affected by my concern for our environment	3.25	3.00	0.860	4.13	4.00	0.900	3.95	4.00	0.967
okGO4 I am concerned about wasting the resources of our planet	3.54	3.00	0.917	4.33	5.00	0.864	4.55	5.00	0.755
GO5 I would describe myself as environmentally responsible	3.69	4.00	0.875	4.25	4.00	0.868	4.21	4.00	0.786
GO6 I am willing to be inconvenienced to take actions that are more environmentally friendly	3.71	3.00	1.177	4.40	5.00	0.911	4.00	4.00	0.900

Source: authors' own elaboration based on survey output; * variables measured from 1 to 5 on a Likert scale.

Table 3. Statistics of normality distribution by group.

	Producers (N = 52)			**Traders (N = 93)**			**Consumers (N = 405)**		
Variable	**sk**	**ku**	**KS**	**sk**	**ku**	**KS**	**sk**	**ku**	**KS**
GS Composite Score	0.492	−0.622	0.000 *	2.50	1.08	0.0001 *	−0.853	0.893	0.000 *
GO1 It is important to me that the products I use/produce/sell do not harm the environment.	0.586	−0.368	0.000 *	−0.901	−0.717	0.000 *	−1.24	1.54	0.000 *
GO2 I consider the potential environmental impact of my actions	0.263	−0.841	0.000 *	−1.043	1.017	0.000 *	−0.824	0.641	0.000 *

when making many of my consumption/production/commercialization decisions									
GO3 My purchase/producing/selling habits are affected by my concern for our environment	0.252	−0.497	0.000 *	−0.626	−0.661	0.000 *	−0.686	0.127	0.000 *
GO4 I am concerned about wasting the resources of our planet	0.278	−0.811	0.000 *	−1.225	1.292	0.000 *	−1.907	4.130	0.000 *
GO5 I would describe myself as environmentally responsible	0.109	−0.865	0.000 *	−0.813	−0.391	0.000 *	−0.823	0.641	0.000 *
GO6 I am willing to be inconvenienced to take actions that are more environmentally friendly	−0.082	−1.580	0.000 *	−1.764	3.229	0.000 *	−0.608	0.018	0.000 *

Source: authors' own elaboration based on survey output; * rejection of the hypothesis $p = 0.05$ applying the Kolmogorov–Smirnov test.

Thus, we tested if the GS composite variable and each GO item would be different among the groups. The respective results (Table 4) show significant statistical differences between producers and traders in all variables, indicating a higher orientation of the traders for greener producing and selling decisions. Almost the same is observable when comparing producers and consumers. The only significant difference between these two groups was found in the variable GO6 ("I am willing to be inconvenienced in order to take actions that are more environmentally friendly"). The comparisons between consumers and traders did not show substantial differences. Again, a significant result of differences between traders and consumers is only visible in GO6.

Table 4. U and Median tests of pairwise groups comparisons.

Variable	Producers vs. Traders		Producers vs. Consumers		Traders vs. Consumers	
	Sig. *U* [a]	Sig. Median Test [b,c]	Sig. *U* [a]	Sig. Median Test [b,c]	Sig. *U* [a]	Sig. Median Test [b,c]
GS Composite Score	0.000 *	0.000 *	0.000 *	0.000 *	0.250	0.746
GO1 It is important to me that the products I use/produce/sell do not harm the environment	0.000 *	0.000 *	0.000 *	Nc	0.105	Nc
GO2 I consider the potential environmental impact of my actions when many of my consumption/production/commercialization decisions	0.000 *	0.001 *	0.000 *	0.007 *	0.154	0.089 **
GO3 My purchase/producing/selling habits are affected by my concern for our environment	0.000 *	0.000 *	0.000 *	0.000 *	0.114	0.100
GO4 I am concerned about wasting the resources of our planet	0.000 *	0.000 *	0.000 *	Nc	0.011 *	Nc
GO5 I would describe myself as environmentally responsible	0.000 *	0.002 *	0.000 *	0.012 *	0.463	0.132
GO6 I am willing to be inconvenienced to take actions that are more environmentally friendly	0.000 *	Nc	0.101	0.354	0.000 *	0.000 *

Source: authors' own elaboration based on survey output; * rejection of the hypothesis $p = 0.05$; ** rejection of the hypothesis $p = 0.10$; [a] exact sig.2-tailed applying Mann–Whitney test; [b] non-parametric test independent samples median test sig. 2-tailed; [c] Yates's continuity correction; nc = not computable.

The respondents' perceptions according to their gender, age, educational level, and family size, as seen in Table 5, was also analyzed. Consumers have the highest rates of GS composite score, and producers have the lowest level. Results also show that women are more "green oriented" than men. Regarding age, people under 50 years of age increase their green orientation with age, but older people (older than 50 years) showed a smaller value. In those samples, no correlation was found between the instruction/education level and family size and green orientation. In both cases, this difficulty is probably related to a smaller number of respondents in some of the categories due to the more significant number of categories (six possible options for education and five for family size).

In the original Haws et al. (2013) research [7], the values of green orientation did not vary according to gender. However, older, more "educated", and higher income consumers showed stronger values of green orientation. In the present study, we verified a slightly higher level of green orientation in female and older respondents. Despite an expectation of the opposite in the case of respondents with higher levels of academic education, no improvement was obtained in terms of green orientation.

Table 5. Green orientation composite score according to gender, age, instruction, and family size.

	Producers	**Traders**	**Consumers**	**Total**
Gender				
Male	3.42	4.22	4.16	4.07
Female	3.55	4.27	4.26	4.19
Age				
18–29	3.17	3.33	4.02	3.95
30–39	3.50	4.14	4.21	4.19
40–49	4.00	4.38	4.32	4.30
+50	3.49	4.26	-	3.94
Education				
University	2.96	3.00	4.21	4.16
High School	3.65	-	4.18	4.06
9th grade	3.60	4.27	4.28	4.18
6th grade	3.92	4.30	4.23	4.23
Primary School	3.17	4.13	4.45	4.24
No instruction			4.83	4.83
Family size				
1 person	3.00	4.24	4.28	4.07
2 persons	3.62	4.27	4.31	4.18
3 persons	3.35	4.62	4.19	4.13
4 persons	3.63	4.07	4.20	4.12
5 or more persons	3.90	4.37	4.05	4.05

Source: authors' own elaboration based on survey output.

5. Discussion

The aim of this study was to analyze green orientation of different stakeholders of Mercado do Livramento in Setúbal and to discuss and compare their behaviors, establishing research and managerial implications. It was possible to find significant differences between producers and traders in all variables, indicating a higher orientation of the traders for greener producing and selling decisions. An analogous situation may be found while comparing producers and consumers (excepting one variable). These gaps may be caused by the intrinsic characteristic of the producers group: much older and with less formal instruction/education level. The comparisons between consumers and traders did not lead to many differences, showing substantial similarity in green attitudes and

behaviors. In the distinct groups, women between 30 and 50 years old have higher green orientation.

Sustainability emerged as an essential topic for government, companies, and consumers. Based on the United Nations Sustainable Development Goals, there is relevant investment and pressure to mobilize different stakeholders' actions around common sustainable goals. Although local ecosystems are not capable of supplying contemporary demands, it seems clear that there is a need for a change in production systems and in individual consumption patterns that are now viewed as the key driver or incentive for this change [8,9]. Significant research has been developed in the last few decades focusing on consumers' sustainable behaviors and consumers' environmental responsibility regarding local products and local retailers [10,26]. These sustainable trends have growing economic and social impacts on societies through additional economic value, ecological footprint, social and cultural authenticity, and territorial sustainability.

The consumption of local food products is an important marketing trend with a relevant impact on local sustainability. In the context of growing consumer interest in environmental issues [14], there are substantial marketing challenges regarding sustainable and local buying behaviors and marketing tools focused on promoting local products and improving producers' and traders' green orientation. Urban food markets and small local retailers may have a relevant impact on this phenomenon due to their historical impact, customer awareness, diversity, and quality of the products that they often sell.

Research on green consumption has been mostly oriented to identify the factors influencing consumer behaviors. Producers and organizations may also have an impact on production and logistic decisions balancing environmental and economic performance [25,26]. In this paper, a consumer green orientation measurement instrument was applied [25] in a medium-sized city in Portugal. The perceptions of local small food producers towards green orientation were also analyzed by adapting existing measurement instruments that showed a good level of internal consistency (Cronbach's alpha).

Consumers showed a high level of green orientation (4.22 in a maximum of 5), in items such as "It is important to me that the products I use/produce not harm the environment" and "I would describe myself as environmentally responsible". In this group, women over 40 years old showed higher levels of GO. Traders were the most sensitive GO group (4.25 in a maximum of 5), especially in items such as "I consider the potential environmental impact of my actions; "my habits are affected by my concern for our environment"; and "I am willing to be inconvenienced to take actions that are more environmentally friendly". Local producers present the lower level of GO (3.5), also with a lower mean, median, and standard deviation in most of the items, as seen in Table 1. These results are consistent with the trend of a relevant consumers sustainable orientation [8], showing promising levels of GO in some of the items for consumers and traders. In the group of local producers, the lower rates of GO may be linked with their lower levels of education/training, as already was mentioned in the existing literature, which may have a negative impact on their environmental practices [24,25].

6. Conclusions

The research carried out in the Livramento market in Setúbal brought important contributions that can be divided into three main areas. Firstly, it made it possible to give greater emphasis to research related to urban food markets which, despite their economic and social importance, are the objects of scarce academic research, specifically in the areas of management. Secondly, the research provided a joint approach to the three stakeholders—traders, producers, and consumers—allowing a holistic view of the phenomena and reinforcing the impact of the scale of green orientations for these different elements of the supply chain. Finally, the results obtained allow for more and better-grounded marketing management on the part of local governments, space management entities, retailers, and producers to help provide better and more measurable marketing performance.

This study has managerial and research implications. The research aimed to verify the reliability of the green scale in a consumer sample (aligned to the original scale) but also in a sample of small local producers and retailers (traders). This step is essential for a better understanding of those stakeholders' behaviors and will allow deeper and more extensive marketing research in the future. In managerial terms, the marketing research outputs are relevant working tools for building better solutions, namely in terms of marketing actions and more targeted training programs to improve the alignment of producers' and traders' practices and skills with the expectations of the community (for instance, in terms of assortment, product information, and merchandising).

Study Limitations and Future Research

With the research conducted at Mercado do Livramento, it was possible to obtain some relevant results and conclusions, as already reported in the previous sections. However, some areas still need more extensive research in order to clarify the green orientation question specifically related to the level of academic instruction and family size. The study did not analyze the importance of word-of-mouth (WoM) and e-WoM in consumers, which is a factor, the latter likely a growing one, that may have an important relation with consumer perceptions and buying behaviors.

The main limitations of this study are related to the fact that the research was conducted in a local market in a specific region. However, to overcome this limitation, it could be improved by replicating this local case study in other regions and retail formats. The authors recommend that future research enlarge the research focus to cover other economic areas and regions to verify the generalizability of the findings. It is also important to complement this analysis with qualitative research instruments to obtain a deeper knowledge of customer shopping behaviors and attitudes.

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