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Pre-Consumption Food Choice Priorities, Food Waste Concerns, and Incentive Strategies for Change—A Portuguese Case Study

Paula Pinto [1,2,3,*], Maria Figueiredo [1], Inês Ferrão [1], Renata Narciso [1] and Paula Ruivo [1,2,3]

[1] Santarém Polytechnic University, Faculty of Agriculture, Quinta do Galinheiro—S. Pedro, 2001-904 Santarém, Portugal; paula.ruivo@esa.ipsantarem.pt (P.R.)
[2] Research Center in Natural Resources, Environment and Society (CERNAS), Santarém Polytechnic University, Quinta do Galinheiro—S. Pedro, 2001-904 Santarém, Portugal
[3] Life Quality Research Centre (CIEQV), Santarem Polytechnic University, Complexo Andaluz, Apartado 279, 2001-904 Santarém, Portugal
* Correspondence: paula.pinto@esa.ipsantarem.pt

Abstract

Sustainability and the reduction of food waste are inseparable themes. In Portugal, 17% of annual food production is wasted, much of it at household level. The main aim of this study was to explore associations of food choices with sociodemographic factors and health and food waste concerns, and explore the acceptance of potential reward systems that may encourage more sustainable dietary behaviors among consumers. Data was collected from Portuguese adults through an online questionnaire during the month of November 2023, obtaining 366 responses. The results showed that the main criterion when buying food was price (reported by 82% participants). As sustainable food buying practices, 55.5% of the participants reported buying fresh food and 33% reported buying locally, which were significantly positively associated with the age and income of the participants. Regarding food consumption, 87% of the participants reported having health concerns and 63% food waste concerns. Age and income were significantly negatively associated with food waste concerns, while health concerns were positively associated with income. Most respondents reported little or no weekly meal plans to reduce food waste. Within the possible rewards for more sustainable food choices, 52% of the participants chose the monetary reward, which was significantly and inversely associated with age and income. Other chosen options were discounts or offers on local or organic food products, and sustainable personal and home hygiene products, suggesting an interest on the part of consumers in changing their consumption habits toward more sustainable habits in areas beyond food. This study provides insights into how sociodemographic and economic factors interact with food choice criteria and sustainability-related concerns in Portuguese adults, highlighting context-specific drivers of sustainable behavior. The findings may be used to design consumer-targeted interventions, such as tailored reward systems, to promote healthier and more sustainable food purchasing and consumption practices. This could be a starting point to create a society oriented toward more sustainable consumption choices, both in terms of food and the environment.

Keywords: food choices; consumer behavior; local food; food waste

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1. Introduction

Sustainability is currently at the forefront of public and institutional discourse, with growing concern from organizations and policymakers. It is a complex concept encom-

passing ecological, economic, social, and political dimensions [1]. All of these dimensions are interconnected and must be addressed holistically. Global challenges such as climate change, biodiversity loss, pollution, and increasing global population leading to resource depletion all require urgent efforts, both at the individual and collective level. Actions toward the achievement of the 17 Sustainable Development Goals set in the United Nations 2030 Agenda for Sustainable Development [2] are the only viable path forward to support both human and ecological well-being.

Food production and consumption are major contributors to environmental impacts mainly due to land use, water consumption, and greenhouse gas emissions [3,4]. Furthermore, sustainability and the reduction of food waste are intrinsically interconnected. Food waste is considered as food and the associated inedible parts removed from the human food supply chain [5]. Globally, 1 billion tons of food were wasted in 2022 (132 kg per capita): 61% in households (79 kg per capita), 27% in food service (36 kg per capita), and 13% in retail (17 kg per capita). This amounts to 19% of the food available to consumers being wasted in these sectors [5]. While global figures underscore the scale of the challenge, the situation at the national level is even more worrying. For instance, within Europe, Portugal stands out as one of the two countries in Europe with the highest food waste index [5]. The Portuguese National Institute of Statistics [6] estimated that a total of 1.926 Mt of food (184 kg of food per inhabitant) was wasted in 2022. Households were responsible for ~67% of food waste (1.284 Mt), followed by restaurants and other food services (~239 Kt), retail and other distributors of food (~228 Kt), primary production (~111 Kt), and food processing and manufacturing (~65 Kt). These data show that households are the main contributors to food waste and, thus, it is urgent to promote changes in consumer behaviors. As defined in SDG 12.3, by 2030, the goal is to halve per capita global food waste at the retail and consumer levels [1].

Dietary choices and lifestyle patterns also play a critical role in environmental sustainability. While food habits are shaped by a range of sociocultural and economic factors, individuals possess autonomy to make informed dietary decisions. Furthermore, personal beliefs and positive evaluations of sustainability may be important factors to overcome barriers to sustainable individual behaviors [7]. For example, as livestock production remains one of the primary contributors to deforestation, biodiversity loss, and marine eutrophication [8], vegetarianism has been increasingly advocated as a means of reducing environmental impact [9,10]. Culture also constitutes an essential dimension of sustainability, grounded in the recognition, respect, and preservation of the customs and traditions of diverse populations. It is possible to foster both cultural sustainability and the sustainability of local regions by prioritizing the purchase of local products, thereby supporting short supply chains [11]. This practice promotes the local economy while simultaneously reducing the carbon footprint [12].

Despite the increasing global focus on food waste and sustainable diets, few studies have explored how food waste concerns, health concerns, sociodemographic factors, and attitudes toward sustainability interact to shape choices of Portuguese consumers. This exploratory study addressed this gap by examining sustainable food behaviors of a convenience sample of Portuguese consumers, as well as their openness to mechanisms that could promote change. The objectives were to (i) assess the criteria for pre-consumption food choices; (ii) explore the associations of food choices with sociodemographic and economic factors, consumer health, and food waste concerns; and (iii) explore the acceptance of potential reward systems that may encourage more sustainable dietary behaviors among consumers.

2. Materials and Methods

This exploratory study used a convenience sample of Portuguese adults due to resource constraints and practical feasibility. Thus, the findings should be interpreted with caution, as the convenience sample limits representativeness and generalizability. Data was collected through an online survey using Google Forms, distributed online through personal contacts of researchers by e-mail and social media. The survey was conducted anonymously, and participants provided informed consent for the use of their data for research and publication purposes. Data collection and handling complied with the General Data Protection Regulation (GDPR) (EU) 2016/679, ensuring participants' privacy, confidentiality, and the ethical management of personal information. No identifiable data were collected, and all responses were stored securely and used solely for academic purposes. Eligible participants were adult Portuguese citizens (18 years old or more), with residence in Portugal. The first section of the questionnaire provided information about the study and asked for participants' consent for the anonymous use of their data. The questionnaire consisted of 16 questions, organized into five topics: (i) sociodemographic data (gender, age, place of residence, household size, education level, monthly net household income), (ii) pre-consumption criteria for food choices (expiry date; brand; whether the food is fresh/unprocessed; local/national origin; nutritional value; price; food certifications; whether the food is trendy; other); (iii) concerns regarding food consumption (food waste and whether they engage in weekly meal planning to reduce food waste; health concerns regarding amount of added sugars and fats; amount of additives; contamination by disease-causing microorganisms; presence of pesticides in plant-based foods; diseases transmissible through animal-based foods); (iv) animal protein consumption, (main source of animal protein; frequency of meals without animal protein); and (v) how consumers would prefer to be rewarded for making sustainable food choices (money; sustainable personal and household hygiene products; beauty products; discounts on leisure activities; discounts on pet products; discounts/offers on local/organic/biological products; discounts on Portuguese slow-fashion brands).

A total of 366 eligible responses were collected during November 2023. Statistical analysis was performed with the Statistical Package for the Social Sciences (SPSS) 29 package for Windows (SPSS, Inc., Chicago, IL, USA), employing descriptive statistics through crosstabs, Phi, and Cramer's V test to identify associations between categorical variables. Significant associations were considered for $p < 0.05$. The strength of the association (effect size) was considered as >0.25 Very strong; >0.15 Strong; >0.10 Moderate; >0.05 Weak; >0 No or very weak [13]. The following subgroups were defined for analysis: (a) Age—<35 and ≥35 years old; (b) Gender—male; female; (c) Education level—high school or equivalent; university; (d) Household income per month—low < 1500 (2 × net minimum income in Portugal in 2022); high ≥ 1500; (e) Region of residence—Large City or Metropolitan Area, such as Lisbon, Porto, or other major urban centers; Medium-Sized or Small City, such as regional capitals or urban centers with smaller populations; and Village or Rural area, defined as smaller population centers with limited urban infrastructure or sparsely populated areas, outside towns and cities. Cut-off points of income and age subgroups were chosen to reach approximately equal group sizes to allow for more reliable subgroup analyses.

3. Results

3.1. Sample Characterization

Of the 366 respondents, the majority were female (65%), with a higher education level (52.5%), and a monthly income equal or above EUR 1500 (two times the net minimum income in Portugal in 2022). The participants were equally divided into the two age groups (18 to 34 years old, and 35 or more 35 years old) (Table 1). Within the younger group,

most participants were between 18 and 24 years old (82%), and in the older group most participants were between 35 and 54 years old (83%). Regarding place of residence, most participants lived in urban areas, with only 21.3% residing in rural areas (Table 1).

Table 1. Sociodemographic and economic characteristics of the participants.

Variable	N (%)
Age (responses = 366)	
18–34 years	184 (50.3%)
≥35 years	182 (49.7%)
Sex (responses = 366)	
Female	238 (65%)
Male	128 (35%)
Education level (responses = 348)	
High School	156 (44.8%)
University	192 (55.2%)
Residence (responses = 363)	
Large City/Metropolitan Area	184 (50.7%)
Medium-Sized or Small City	101 (27.8%)
Village or Rural area	78 (21.5%)
Household Income per month (responses = 311)	
<1500 EUR	139 (44.7)
≥1500 EUR	172 (55.3%)

3.2. Pre-Consumption Criteria for Food Choices

Concerning the potential criteria used for food choices, participants could select one or more options from a list that included expiry date, brand, preference of fresh over processed food, local or national origin, nutritional value, trendiness, price, certification (e.g., organic, PDO—Protected Designation of Origin, animal welfare), buying in bulk, or other. Five options accounted for 90% of choices: price, fresh food, expiration date, nutritional value, and local origin (Figure 1). The most selected criterion was price (82% of participants selected "Yes") followed by fresh/unprocessed food (55.5%), expiry date (42.9%), and nutritional value (34.7% and local or nationally produced food (32.8%) (Figure 1).

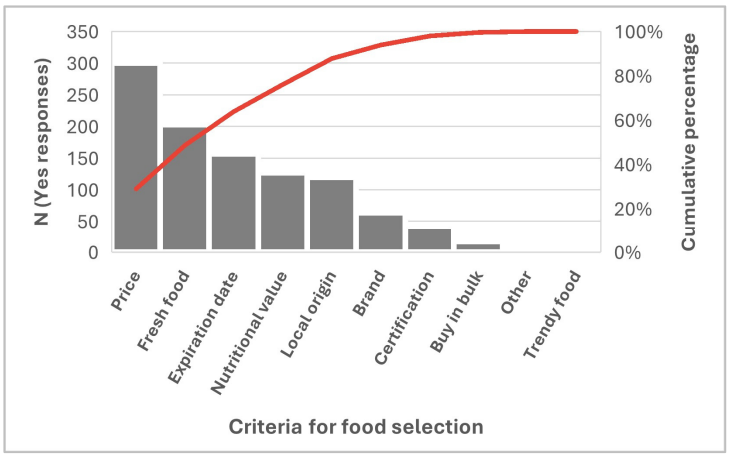

Figure 1. Criteria that participants used for pre-consumption food choices. The number of participants responding was 366 and more than one option could be selected by each participant. The participants could select Yes/No for each option. The red line indicates the cumulative percentage of responses, illustrating the relative contribution of each criterion.

The sociodemographic and economic factors potentially associated with the most selected criteria were explored. Figure 2 highlights the strength of the associations found between sociodemographic and economic factors and criteria for food choices. Price was

the only variable that did not show significant associations with any of the sociodemographic and economic variables. On the other hand, sex and local of residence were the factors with no significant association with any of the food choice criteria (Figure 2). Age and income were the factors significantly associated with a higher number of food choices. More participants over 35 selected fresh (unprocessed) and local foods, while more younger participants selected the expiration date of the food product (Figure 2). Regarding income, more participants with a higher level of income selected fresh (unprocessed) foods, nutritional value, and local food compared to those with a lower level of income (Figure 2). Education level was significantly associated with nutritional value and local food, with more participants with higher education selecting these options as a food choice criterion (Figure 2). The strongest associations were found for age and choice of local food; education level and choice of nutritional value; and income and choice of local food, nutritional value, and fresh food. All other significant associations had moderate strength. The complete table showing the percentages, effect sizes, and *p*-values is available in the Supplementary Materials (Table S1).

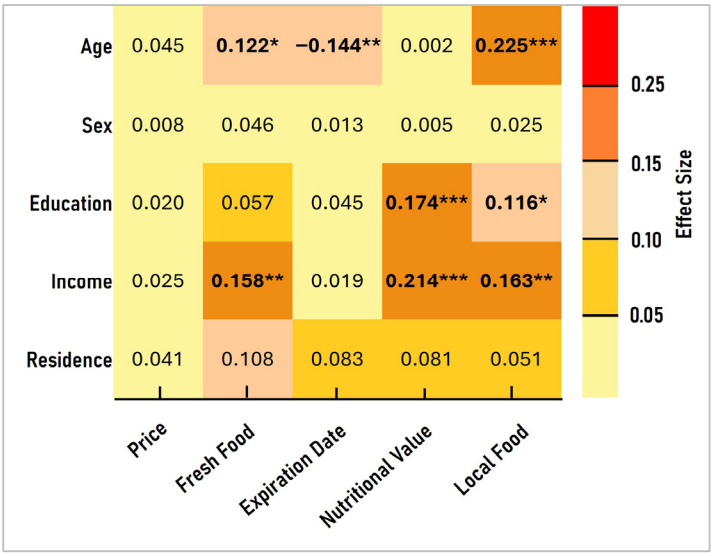

Figure 2. Associations between sociodemographic and economic factors and the most selected criteria for food choices. Associations were tested with the Phi test for variables with two categories or Cramer's V test for variables with more than two categories. Negative values indicate an inverse association. The strength of the effect size was considered as >0.25 Very strong; >0.15 Strong; >0.10 Moderate; >0.05 Weak; >0 No or very weak [13]. Significant associations are presented in bold, marked as * for $p < 0.05$, ** for $p < 0.01$, and *** for $p < 0.001$.

3.3. Concerns About Food Consumption

The participants were asked what aspects they were more concerned about regarding food consumption. Most participants reported having health concerns (86.9%), mostly about the content of sugars and fats (47.5%). Other health concerns were about the presence of additives (28.7%), contamination by microorganisms (16.9%) and contamination by pesticides (16.4%). Regarding food waste concerns, 62.6% of the participants reported having food waste concerns. Figure 3 shows the significant associations between health and food waste concerns and sociodemographic and economic factors (complete data with percentages, effect sizes, and *p*-values is available in the Supplementary Materials (Table S2)).

Both health and food concerns were significantly associated with income, with a strong effect size (Figure 3). Health concerns did not show any other significant association with sociodemographic factors, but food waste concerns were inversely significantly associated with age, with a very strong effect size (Figure 3). In fact, 75% of participants under 35 years

had concerns about food waste, while only 50% of participants aged above 35 reported such concerns (Supplementary Materials, Table S2).

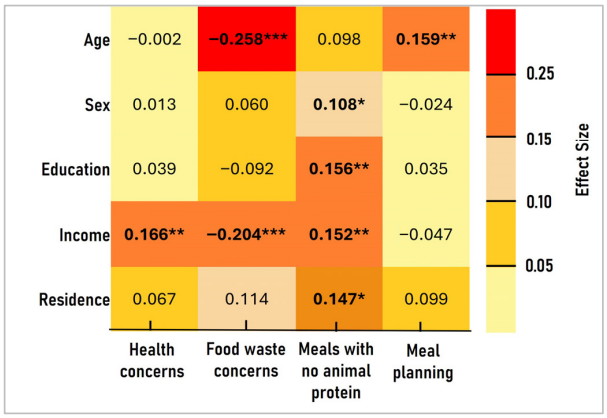

Figure 3. Associations between sociodemographic and economic factors, concerns regarding food consumption, and sustainable behaviors. Associations were tested with the Phi test for variables with two categories or Cramer's V test for variables with more than two categories. Negative values indicate an inverse association. The strength of the effect size was considered as >0.25 Very strong; >0.15 Strong; >0.10 Moderate; >0.05 Weak; >0 No or very weak [13]. Significant associations are presented in bold, marked as * for $p < 0.05$, ** for $p < 0.01$, and *** for $p < 0.001$.

Sustainable behaviors such as lower meat consumption were also explored. The results reveal that consumption of animal protein was widespread among participants: 55% of participants reported that they did not have any meals without animal protein per week, and 51% reported that the main animal protein source was meat. Interestingly, health concerns were moderately associated with having meals without animal protein (Phi = 0.128; $p = 0.014$).

One of the possible ways of decreasing food waste at home is meal planning; thus, the questionnaire included a question on the frequency of meal planning, and the association between food waste concerns and meal planning was also explored. Most participants (56.3%) reported that they never or occasionally planned meals to decrease food waste at home, while 43.7% reported planning meals frequently or always. A strong significant association was found between meal planning and age (Figure 3), with more participants over 35 years old reporting that they planned meals than participants under 35 years (51.6 and 35.9%, respectively; Supplementary Table S2). No other sociodemographic or economic factors showed significant associations with meal planning. Despite most participants reporting food waste concerns, no association was observed between food waste concern and frequency of meal planning to decrease food waste at home (Phi = 0.010; $p = 0.846$).

Meat consumption was not associated with food waste concerns. Interestingly, a very strong inverse significant association between health concerns and food waste concerns was found (Phi = −0.267; $p < 0.001$).

When exploring any associations between consumption concerns and incentives, health concerns showed a strong direct significant association with expiration date (Phi = 0.157, $p < 0.001$), fresh food (Phi = 0.189, $p < 0.001$), and nutritive value (Phi = 0.198, $p < 0.001$).

3.4. Reward Systems

We explored possible reward systems to promote sustainable food choices. Four options accounted for 90% of the preferences of the participants: money, discounts, or offers on local or organic food; discounts or offers on sustainable personal and household hygiene products; and discounts on leisure activities (Figure 4). Discounts or offers on pet

products, beauty products, and slow-fashion brands were the least chosen options. The most chosen option was the monetary reward (52% of the participants) (Figure 4).

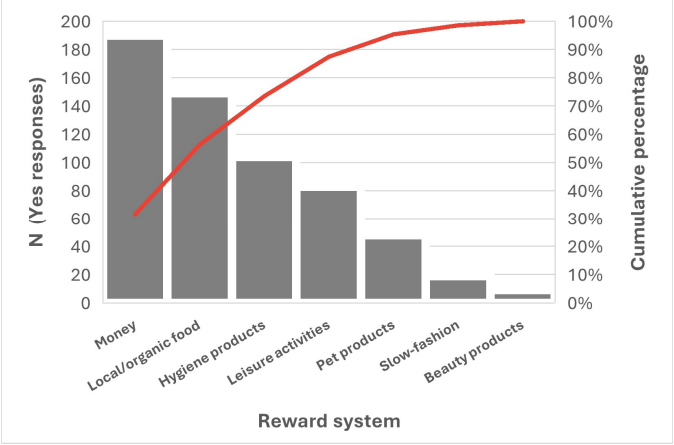

Figure 4. Preferred reward mechanisms chosen by participants for making sustainable food choices. The number of participants responding was 366 and more than one option could be selected by each participant. The participants could select Yes/No for each option. The red line indicates the cumulative percentage of responses, illustrating the relative contribution of each reward system.

Sex and age were observed to be significantly associated with choosing money as the reward mechanism (moderate and strong associations, respectively; Figure 5). In fact, more men selected this option (59.4%) than women (47.9%), as well as more participants under 35 years (58%) than those above 35 years (44.0%) (Supplementary Table S3). Among sustainable consumer options for reward systems, the most selected ones were discounts or offers on local or organic food products (41%) and sustainable personal and home care products (28%). Both of these options were influenced by the age of the participants, but in different directions (Figure 5). "Discounts or offers on local or organic food products" was selected by a significantly higher percentage of participants over 35 years (49.5%) compared to participants under 35 years (32.1%; strong association), while "discounts on sustainable hygiene and food products" was selected by a higher percentage of participants under 35 years (34.2%) than those over 35 years (22.5%, moderate association) (Supplementary Table S3). Interestingly, sex was not significantly associated with the option "discounts or offers on local or organic food products" but was strongly associated with "discounts on sustainable hygiene and food products" (Figure 5), with more women than men choosing these types of products as a reward system (Supplementary Table S3). Income was strongly associated with "discounts or offers on local or organic food products". In fact, 48.3% of participants with incomes above 1500 euros per month selected this option, compared with 33.1% of participants with incomes lower than 1500 euros (Supplementary Table S3). The next most selected option as a reward system was discounts on leisure activities (23%), but no associations were observed with any of the economic or sociodemographic variables.

3.5. Associations Between Reward Systems and Criteria for Food Choices

We further explored any associations between reward systems and criteria for food choices. No significant association was found between discounts on leisure activities and any of the food choice criteria. Figure 6 shows the significant associations, with the direction and magnitude of effect size, found between the five main criteria for food choices and preferred reward systems. There is a strong positive association between more sustainable criteria for food choices and reward systems related to food sustainability. In fact, the reward system of discounts or offers on sustainable food products is positively associated with criteria for food choices like fresh food over processed food (criteria with higher

effect size) and local or organic food. Discounts or offers on sustainable food products was moderately and positively associated with the nutritional value of the food. On the other hand, this reward system is inversely associated with price as the criterion for food choices. Money as a reward system is positively associated with price as a pre-consumption criterion for food choices (moderate association) and inversely associated with choosing fresh food instead of processed food (strong association) (Figure 6). Associations between food waste concerns or health concerns and incentive preference were also explored. Health concerns showed a moderate association with the preference for local food discounts/offers as an incentive (Phi = 0.108, $p = 0.039$), while food waste concerns showed no association with any of the incentives.

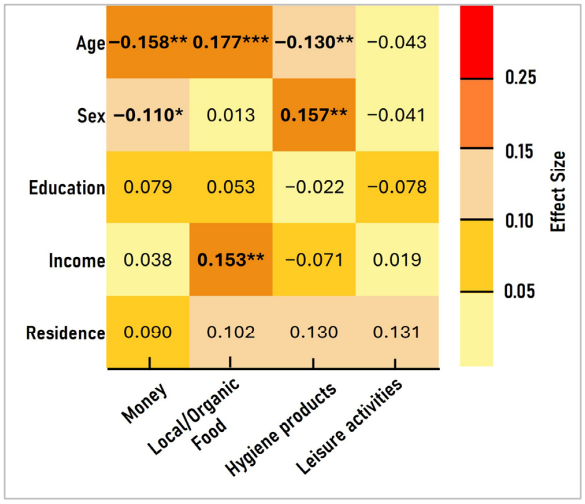

Figure 5. Association between sociodemographic and economic factors and the most selected reward systems (offers/discounts as money or different types of sustainable products). Associations were tested with the Phi test for variables with two categories or Cramer's V test for variables with more than two categories. The strength of the effect size was considered as >0.25 Very strong; >0.15 Strong; >0.10 Moderate; >0.05 Weak; >0 No or very weak [13]. Significant associations were marked as * for $p < 0.05$, ** for $p < 0.01$, and *** for $p < 0.001$.

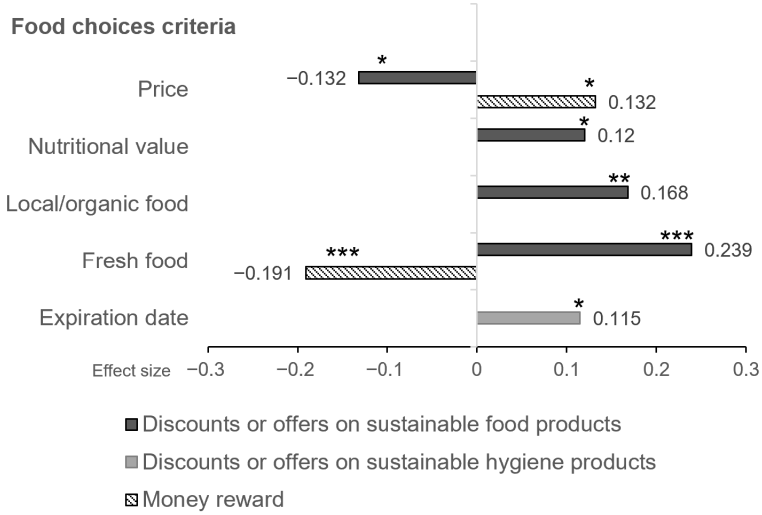

Figure 6. Associations between criteria for food choices and reward systems. Associations were tested by the Phi test. The numbers indicate the magnitude of the effect size; inverse associations are indicated by minus sign. Significance: * for p value < 0.05, ** for p value < 0.01, *** for p value < 0.001. The strength of the effect size was considered as >0.25 Very strong; >0.15 Strong; >0.10 Moderate; >0.05 Weak; >0 No or very weak [13].

4. Discussion

4.1. Determinants of Criteria for Pre-Consumption Food Choices and Sustainable Behaviors

Individual food choices are complex and multifactorial. Conceptual models that integrate factors affecting food choice toward healthier and more sustainable products categorize the main factors influencing individual food choices in three dimensions: (1) food-related features, including nutritional properties and health value, information based on nutrition facts, sustainability labels, and organic identity; (2) individual-related features such as taste, values and beliefs, and cultural habits; and (3) social environment, namely, income, socioeconomic status, and price of food [14]. Our study provides relevant insights into how sociodemographic and economic factors shape food choices and responses to incentives for sustainable behavior. In line with other studies, price remains a universal and undifferentiated factor as the main criterion for pre-consumption food choices [15] as well as the main barrier to more sustainable food choices [16], especially among younger generations, who may suffer from financial constraints [17]. Accordingly, our results show that sustainable food choices such as buying local or organic food, as well as fresh or non-processed food, are more salient among older (over 35 years old) and higher-income participants (over EUR 1500 of net income per month). Other dimensions of food choices such as nutritional value are associated with more educated participants. These results underscore the role of socioeconomic status in enabling sustainable food consumption, as observed for healthier food choices. An interesting study leveraged on Maslow's hierarchy of human needs suggested that people with higher income levels and higher levels of education are satisfied with higher-level needs and make healthier food choices [18].

Health emerged as a central concern of participants, particularly regarding the sugar, fat, and additive content of the food. Associations between health concerns and sustainable practices did not seem to be strongly aligned. Sustainable practices such as choosing local foods were not associated with health concerns, and choosing fresh foods over processed foods was moderately associated with health concerns. Other sustainable practices such as reducing animal protein consumption were not very prominent. In fact, most participants reported that they did not have any meals without animal protein and that the main source of animal protein was meat. Nevertheless, a moderate association was found between health concerns and having meals without animal protein.

Furthermore, health concerns were not significantly associated with practices to reduce food waste, such as planning meals. The inverse relationship between health concerns and food waste concerns suggests segmented consumer priorities, indicating that messages about sustainability and health may need to be better integrated to reach broader audiences effectively.

Interestingly, younger and lower-income individuals express greater concern about food waste, yet do not consistently engage in behaviors such as meal planning. This is in line with a study undertaken in the UK, where consumers were aware that meal planning could shape eating practices and reduce food waste, but in reality was deeply affected by other sets of practices and routines in their lives [19]. This discrepancy may reflect a well-documented behavior–intention gap regarding food waste. In fact, convenience, time pressures, and limited planning or cooking skills can constrain the ability to act on good intentions. Additionally, behavioral changes are highly influenced by practical priorities such as household income, dietary preferences, and family needs, which further complicate decision-making [20]. Thus, a set of structural and behavioral barriers rather than lack awareness emphasizes the need for targeted interventions that facilitate action, for example, digital tools or nudges for home budget management, meal planning, and cooking.

The influence of gender on sustainable food choices is still not well understood, with contradictory results persisting. In some cases, women have been reported to be more willing than men to cut down red meat and eat more vegetables [21], as well as having a stronger concern for the ecological environment or biosphere [22]. However, other studies have suggested that sustainable behaviors such as purchasing seasonal fruit or preferring local foods are not influenced by gender [23]. Similarly, we did not find any significant difference between men and women in more sustainable food choices, or health or food waste concerns. It is important to note that our sample was not gender-balanced (≈65% women, 35% men), which may reduce precision for estimates in men and limit statistical power to detect small differences; however, the observed effect sizes were small and did not suggest large, meaningful disparities. Notably, we did find that women reported more meals without animal protein than men, a result that aligns with prior literature linking female gender to lower meat consumption. Given the fact that sustainability is understood differently in different countries [23], it is possible that gender differences emerge more clearly in behaviors with cultural or identity-related dimensions (e.g., meat avoidance), while practical decision-making criteria may be increasingly shared across genders. Future research with more balanced samples and designs capable of detecting small effects is needed to clarify whether subtle or context-dependent gender differences persist.

Beyond individual and socioeconomic determinants, our findings can be positioned within broader sustainability challenges. Household-level practices such as reducing food waste are directly connected to climate mitigation, as food waste is a major contributor to greenhouse gas emissions and inefficient resource use, according to the 2024 Food Waste Index [5]. In Portugal, household food waste is estimated at approximately 124 kg per capita per year, driven by over-purchasing, lack of meal planning, and consumer preferences. The fact that this waste occurs primarily at the household level makes targeted interventions particularly urgent.

4.2. Influence of Reward Systems to Promote Sustainable Behaviors

When it comes to reward systems that could promote sustainable food behaviors, monetary incentives remain the most preferred, particularly among younger (strong association) and female (moderate association) participants, suggesting that financial constraints and immediate value remain primary motivators for these groups. In contrast, older and higher-income individuals are more receptive to sustainable, value-aligned incentives, such as discounts on local or organic products. This suggests the potential for segmented incentive strategies, with financial rewards used to catalyze engagement in younger populations and value-driven incentives reinforcing existing sustainable habits in older or more affluent groups.

The results from a bibliometric review suggest educational and awareness campaigns as efficient strategies to improve behaviors toward food waste reduction, for example, the diffusion of motivational messages, through the media or social networks, combined with the indication of real example behaviors that consumers could adopt or follow [24]. In our study, participants with higher incomes were strongly associated with choosing food based on nutritional value and sustainable criteria (like local or organic food and unprocessed food) and having health concerns, but not food waste concerns. These results seem to be partially in line with a recent study where it was found that nutrition-conscious consumers reduce food waste but sustainability-related food choices lacked a significant impact on food waste [25]. The authors suggested that nutritional messages can be used as an effective nudging tool to promote more sustainable consumer behavior. Thus, combining awareness campaigns targeted at both nutrition and sustainability messages with tailored incentives

may be an effective strategy to motivate consumers who already value nutritional and sustainable food attributes. Conversely, those focused on price are more responsive to monetary rewards, reinforcing the importance of matching incentives to consumers' values and constraints. Moreover, strong self-determined motivation and personal identification with sustainable eating were reported as key behavior change drivers [26], emphasizing the need for multi-layered, tailored strategies to effectively shift consumer practices toward food waste reduction and other food sustainability practices. From a policy perspective, the results from this study suggest that Portuguese strategies to foster sustainable food practices would benefit from segmented, tailored interventions. For younger and lower-income groups, digital meal planning tools, app-based nudges, and supermarket loyalty rewards could help overcome budgetary and time constraints while reducing food waste. For higher-income and more educated consumers, eco-labeling campaigns and the integration of nutrition–sustainability messaging, linking health concerns with environmental impact, may resonate more strongly. Retailers and NGOs could collaborate in pilot programs that combine monetary rewards with informational nudges, such as discounts on local or organic products accompanied by simple sustainability labels. At the national level, these approaches align with Portugal's commitments under the National Commission for Food Waste Education (CNCDA)and the EU Farm to Fork Strategy, providing concrete opportunities to embed consumer-focused incentives into broader sustainability agendas. By connecting behavioral insights with actionable tools, Portuguese policymakers and practitioners can more effectively translate awareness into practice. The present study, however, is limited to a convenience sample, non-representative of the Portuguese population, and further studies with larger Portuguese samples should be carried out.

5. Conclusions

This study demonstrates that food choices in Portugal are strongly shaped by socioeconomic status. Younger and lower-income individuals are particularly constrained by price and more responsive to monetary incentives, while older and higher-income groups are more receptive to value-based rewards such as discounts on local or organic products. Health concerns influence food choices but are not consistently aligned with sustainable practices, and food waste behaviors reveal a persistent awareness–action gap. These insights suggest that Portuguese policies and initiatives should adopt segmented strategies: digital meal planning and loyalty app tools to support budget-constrained households, eco-labeling and nutrition–sustainability campaigns for higher-income consumers, and NGO–retailer partnerships to extend community engagement. Embedding these interventions within the National Commission for Food Waste Reduction and aligning them with EU Farm to Fork Strategy and SDG 12.3 targets would increase their systemic impact. Future research should build on these findings with larger, more representative Portuguese samples to refine consumer segmentation and test the effectiveness of tailored incentive mechanisms in real-world settings.

Supplementary Materials: The following supporting information can be downloaded at https://www.mdpi.com/article/10.3390/su17209176/s1: Table S1: Association between sociodemographic and economic factors and criteria for food choices; Table S2: Association between sociodemographic and economic variables with health concerns, food waste and sustainable behaviors; Table S3: Association between sociodemographic and economic factors and reward systems.

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