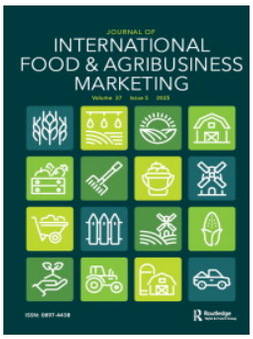

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Unveiling sustainable and health-conscious consumer preferences for Greek yogurt: Attribute hierarchies and product differentiation opportunities in the Slovak market

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ABSTRACT

This study investigates Slovak consumer preferences for Greek yogurt through an online survey utilizing conjoint analysis, focusing on four key product attributes: price, probiotics, packaging, and production methods. The study reveals distinct consumer clusters with varying priorities: "Green and Health-Conscious Shoppers", "Traditional Consumers", and "Price-Sensitive Consumers." It also highlights that consumer decisions are influenced by demographic and psychographic factors, such as values, education, and lifestyle. The importance of probiotics to health-conscious consumers suggests a market opportunity for functional dairy products with benefits like gut health and immunity support, which should be clearly communicated through targeted marketing.

KEYWORDS

Attribute hierarchy; consumer preferences; Greek yogurt; product differentiation

Introduction

A balanced diet is necessary for both nutrition and general health. Consuming healthy, nutritious food has become a major trend in modern society in many areas, including the media, public policy, professional opinion, and general awareness (de Moraes Prata Gaspar et al., 2024). Indeed, changes in the population's epidemiological, demographic, and nutritional characteristics are the cause of the growing concern about how eating affects health (Baker et al., 2020). The increasing trend in healthy food consumption reflects people's desire for longevity and good health (Chen et al., 2014), since diet is a significant risk factor for non-communicable diseases (Fang et al., 2023). A balanced diet can be important to mitigate this risk, providing elements to live in good health (Lean, 2015).

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To support health in a regular diet, functional foods can be integrated, as they play a significant role in healthy diets (Zawistowski, 2017). These products are described as foods containing one or more constituents that may improve health or prevent disease as long as the concentration is safe and high enough to provide the effect in a standard diet (Temple, 2022).

The study of consumer interest toward healthy foods can be a useful tool for supporting policymakers and increasing their consumption, reducing the burden on healthcare systems (Zanchini et al., 2022a). Different drivers can be adopted to describe healthy food consumption, such as life stage, circumstances, food preferences, availability, culture and customs (Nelluri & Thota, 2018; Brun et al., 2020). In addition, several demographic and socioeconomic factors, such as awareness, price, accessibility, and ease of use, play significant roles in the ever-expanding global market for functional foods (Carrillo et al., 2013). There are different segments of functional foods, and one significant segment in the global market is the development of functional dairy products (Ortiz et al., 2017). These products are considered functional because they contain calcium, probiotic cultures, and other beneficial components (Kalamian, 2017; Massaglia et al., 2019). As consumer preferences have steadily moved toward products that offer extra nutritional and alimentary positive aspects, the dairy sector has seen substantial innovation (Sharma et al., 2024). Functional dairy products also include fermented products such as yogurt that often has probiotics and prebiotics as functional constituents (Martins et al., 2018). Moreover, yogurt is one of the most widely consumed fermented dairy products worldwide (Demirci et al., 2022).

In the context of international yogurt studies, Cerjak and Tomić (2015) reported that functional yogurt was one of the most consumed products among young consumers in Croatia. The importance of this product was also found in other countries such as Algeria (Bousbia et al., 2017), Kosovo (Hysen et al., 2008), and Iran (Ahmadi Kaliji et al., 2019). Yogurt is well known for its high nutritional content and several health advantages (Vieira et al., 2022; Wang et al., 2023). These beneficial properties are recognized by consumers and allow them to show positive preferences and relatively high willingness to pay (WTP) (Zanchini et al., 2023). Kim et al. (2020) revealed that consumers who pay more attention to a certain ingredient's details are more likely to select yogurt with functional and health properties (Kim et al., 2020). Bimbo et al. (2017) examined several functional dairy products, like yogurt enhanced with calcium, fiber, and probiotics, suggesting that gender is a significant factor affecting functional yogurt consumption. Other factors were found to be significant toward functional yogurt consumption and WTP for its characteristics, such as the positive relation between income and education and WTP for probiotics yogurt (Szakály et al., 2019). Psychological factors are related to consumption of

functional yogurt, such as beliefs and subjective knowledge that has a strong positive effect (Szakály et al., 2019). Literature also suggests that consumers can evaluate yogurt characteristics in different ways, including based on how they are presented on the label, and consequently, there is high heterogeneity among choices (Ballco & De Magistris, 2019). However, the functional component of probiotics is often preferred by consumers (Jezewska-Zychowicz, 2009), also showing higher WTP compared to other characteristics, such as fiber content (Zanchini et al., 2023). Moreover, information about functional properties and diet can be important predictors of WTP for functional yogurt characteristics (Vecchio et al., 2016).

The literature states that healthiness and sustainability aspects are key determinants of consumer choices. According to recent study between Danish and Italian consumers revealed several motives for yogurt consumption. Consumers who are prioritizing benefits over price tend to perceive yogurt as healthier, better for their mood, more convenient, tastier and natural as well as they seek sustainability aspects in consumed products. While consumers who are driven by their health are more interested in the healthiness of products and are less involved in sustainable eating (Fantechi et al., 2025). Furthermore, consumers associated more positive emotions with choosing the healthier yogurt option over the unhealthier one (Ballco et al., 2022). Another study identified positive influence of ecological and health-related labels on consumer preferences for yogurts (Jürkenbeck, 2023; Brückner et al., 2023). Yogurt products with a health food label would be more attractive to consumers (Chang et al., 2022). Nowadays, nutrient content claims are mainly used on yogurts where mostly consumers engaged in sport activity have positive attitudes toward these claims (Collins & Lalor, 2024; Wadhwa et al., 2021). In addition, there is a growing trend toward private label yogurts which are being considered of the same quality as branded yoghurts (Chatzoudes et al., 2024). The results based on consumer study conducted in Slovakia showed that the most important motives for purchase of both private labels and traditional brands were recommendations from friends and acquaintances, desire to try and promotion (Košičiarová et al., 2020).

Moving on to Greek-style yogurt, it stands out due to its rich and creamy texture and specific tangy flavor, gaining recognition for its nutritional benefits and versatility (Pertami et al., 2024), in particular for those who aim to increase their protein intake and for individuals with lactose sensitivity (Pei et al., 2017). To enhance health properties, natural fruit extracts, sweeteners, spices, and other ingredients are incorporated (Rashwan et al., 2023). Production of Greek-style yogurt involves increasing the solid content of the milk by draining whey through cloth bags after fermentation (Garzón et al., 2021). In terms of nutritional value, Greek-style yogurt is rich in peptides, vitamins (such as B_{12}, D, A and riboflavin) and minerals

(mostly calcium, iodine, phosphorus, zinc and potassium; Sivieri et al., 2017; Ilić et al., 2024). Based on the nutritional values, plain Greek-style yogurt typically contains 97 kcal per 100 g. Additionally, Greek-style yogurt provides low-carbohydrate content (3.94 g per 100 g) and 2–2.5 times more protein content (9.95 g per 100 g) compared to traditional ones (Garzón et al., 2021; Víquez-Barrantes et al., 2023), which enhances its perception as a nutritious product (Sumi et al., 2023). Regarding micronutrients, Greek-style yogurt is a significant source of calcium (115 mg per 100 g) and phosphorus (137 mg per 100 g). Fat content differs depending on the type. Plain Greek-style yogurt contains approximately 2 g of fat per 100 g (Chandan, 2017). Currently, the rising trend in health and wellness has led to the promotion of Greek-style yogurt as a functional product due to its probiotics and bioavailable protein content supporting bone health, muscle functioning and digestion (Sumi et al., 2023; Chandan, 2017).

The growing popularity of Greek-style yogurt can be observed in several studies focused on its rheological, microbiological, and bioactive compounds (Pappa et al., 2024; Pertami et al., 2024; Silva et al., 2021; Yusuf et al., 2024). Sensory attributes were also assessed (Avishka et al., 2024; Gyawali et al., 2022; Moore et al., 2018; Sweety et al., 2025). However, there is a lack of literature addressing the consumer perceptions of Greek-style yogurt. Desai et al. (2013) revealed that consumers preferred Greek-style yogurt with a firm and dense texture, moderate sweet aromatic notes, balanced dairy sourness, and a noticeable milkfat flavor. Finally, do Carmo Vieira et al. (2022) noted that price and health-related concerns are crucial factors affecting the purchasing intentions of Greek-style yogurt.

Concerning the Slovak market, the country is characterized by a long tradition of dairy production and consumption (Kubicová et al., 2014; Váryová et al., 2019), which reflects the importance of this sector (Kubicová et al., 2019). The dairy preferences of young consumers in Slovakia have been examined in several studies (Kubelaková & Šugrová, 2017; Kapsdorferová & Nagyová, 2005; Šugrová et al., 2018). The findings consistently show that yogurts, milk, and cheese were the most consumed dairy products. Literature suggests that a healthy lifestyle can be considered an important driver of Slovak consumers' behavior toward functional dairy products (KrivošíKová et al., 2019; Kubicová et al., 2019). As consumer preferences shift toward healthier options, the importance of functional dairy products is constantly growing. The trend in consumption suggests that the most consumed functional dairy products in Slovakia are those with lower fat content and enriched with probiotics (Šedík et al., 2025). The Ministry of Agriculture and Rural Development of the Slovak Republic (2022) reported that the yearly consumption of milk and dairy products per person has increased over the past few years and was estimated at 190 kg in 2021, but remains below the recommended intake, which is

estimated at 220 kg. The issue of insufficient dairy consumption has been studied in research by Kubicová et al. (2021), who suggest that the consumption is determined by price, overall quality, and level of supply of dairy products. Finally, concerning the yogurt category, annual consumption has shown an upward trend (KrivošíKová et al., 2019). In the Slovak market, consumers are familiar with the Greek-style yogurt as dairy products are part of everyday consumption. In this regard, a wide range of Greek-style yogurts are available and offered on the market, including plain, flavored and higher-protein varieties. Following the rising trend of healthy consumption, this may suggest that younger consumers are interested in Greek-style yogurt as they perceive it as a healthier and more nutritious option. Moreover, it is likely that Slovak consumers, particularly the younger generation, will show a strong preference for Greek-style yogurt and for purchasing it. Such preference might be a result of its higher protein content and its increasing popularity in everyday eating habits. In contrast, older generations generally prefer traditional and flavored yogurts that are more affordable, and with which they are more familiar (Chatzoudes et al., 2024; Šedík et al., 2025).

Research gap, objective, research questions and paper structure

Whereas dairy products have been widely studied, consumers' perceptions of Greek-style yogurt haven't been explored in Slovakia. This study aims to address the research gap by examining different perceptions of Greek-style yogurt using a multi-attribute technique characterized by a ranking conjoint experiment (Di Vita et al., 2022). The study expands the literature by incorporating sustainability-related attributes with health claim, providing a more comprehensive understanding of consumer preferences in the dairy market with an emphasis on Greek-style yogurt. Furthermore, to the best of our knowledge, no studies have been published in the literature on functional Greek-yogurt consumption in Eastern European countries using a multi-attribute valuation approach such as conjoint analysis. Finally, attribute differentiation in Greek yogurt is still poorly evaluated.

Based on the novelty aspects and on consideration from the introduction section, the main objective of this paper is to identify the hierarchical relation among 4 Greek yogurt attributes and to understand if future differentiation is possible. To fully address the main objective, five research questions were identified:

1. Which attribute can be considered important for Greek yogurt consumption?
2. Is there a hierarchical relation among Greek yogurt attributes?

3. Is it possible to identify consumer groups moved from different attributes?
4. Are there any consumer characteristics that can be matched to specific attributes?
5. Can Greek yogurt be differentiated based on attributes which are relevant for consumers?

The paper is divided into the following sections: methodology, which explains the data collection, experimental design, and econometric model for utility estimation; results and discussion, which outlines the connections with the literature; and conclusions, which summarize the work and explain the implications and limitations.

Methodology

Data collection

Data collection was conducted by implementing an online survey. The survey was carried out using a multi-section questionnaire distributed from September 2023 to March 2024, primarily via social networks and emails. The research sample was stratified according to gender and age cohorts to reach representativeness of the Slovak population. In total, four age segments were developed based on existing studies. Respondents were classified into four groups: Generation Z (born between 2012 and 1997), Generation Y (born between 1996 and 1981), Generation X (born between 1980 and 1965), and the Baby Boomers (born between 1964 and 1946) (Chaney et al., 2017; Dabija et al., 2017; Šedík et al., 2018).

Data can provide reliable results that can be inferred to the general population thanks to the stratified sample. Having fulfilled this important condition, a power sampling analysis was performed to determine the minimum number of respondents necessary to ensure the production of robust coefficients (Zanchini et al., 2023). To this aim, the online tool Conjointly was used, setting the following parameters that can be considered standard criteria (Conjointly, 2023): Population 5.60 million; confidence level 95%; margin of error 5%; sample proportion 0.5. The suggested sample size was 385, indicating that the sample size meets the criteria of representativeness of the sample size and of the original population.

Data were collected using a multi-section survey divided into three parts: conjoint analysis, where the experimental design was introduced to the respondents; an explorative items part, where variables related to the importance attached to health status, claims attributes and to extrinsic or intrinsic cues were addressed; and socio-demographics and lifestyle

behavior items. The experimental design was generated to maximize the reliability of the estimates and of the answers. The detailed description is provided in chapter 2.2 (Data analysis). Questions from the second part of the survey were collected using Likert scales from 1 to 5 where 1 indicated that the items were not considered important for yogurt consumption. Conversely, a score of 5 indicated that the items were considered very important for yogurt consumption. Finally, "results and discussion"-section was developed with multiple-choice questions to permit analysis of categorical variables by means of non-parametric inferential tests.

After the data cleaning process, 630 valid records were obtained, and the characteristics of the respondents are included in Table 1, while the explorative items as Appendix.

Data analysis

Conjoint analysis

The conjoint analysis was developed by selecting four attributes with different attribute levels, as highlighted in Table 2. The selection of attributes was conducted by means of a literature review combined with a focus group with experts, allowing the identification of some fundamental ones for yogurt differentiation. Concerning price, three attributes' levels were included. In particular, the central price is based on market research from which the average selling price emerged. The other two values were selected by adding or detracting the standard deviation from the central value (Mancuso et al., 2024). Attribute selection can be considered the first fundamental part of the conjoint experiment. However, once the attributes

Table 1. Descriptive statistics of the sample.

Variables	Type	Categories	Frequency	Percent
Age cohort	Socio-demographic	Generation Z	70	11.11
		Generation Y	204	32.38
		Generation X	210	33.33
		Baby Boomers	146	23.18
Diet: Healthy and balance	Lifestyle	No	341	54.13
		Yes	289	45.87
Education	Socio-demographic	High school	411	65.24
		University degree	219	34.76
Family members	Socio-demographic	1	60	9.52
		2	112	17.78
		3 or more	458	72.70
Gender	Socio-demographic	Male	315	50.00
		Female	315	50.00
Net monthly income	Socio-demographic	Up to 600 €	135	21.43
		601–1000	178	25.25
		1001–1200	187	29.68
		Higher	130	20.64
Residence	Socio-demographic	Rural	364	57.78
		Urban	266	42.22
Worker	Socio-demographic	No	169	26.83
		Yes	461	73.27

Table 2. Selected attributes and attribute levels.

Attributes	Levels
Price	0.74 €/150 g; 0.92 €/150 g; 1.10 €/150 g
Probiotics	Yes; No
Packaging	Non-recyclable; 30% less plastic; 100% recyclable
Production method	Conventional; Organic

Table 3. Profiles obtained from the orthogonal design and adopted in the survey.

Cards	Price	Probiotics	Packaging	Production method
1	0.92 €/150 g	No probiotics	100 % recyclable	Conventional
2	0.74 €/150 g	Probiotics	30% less plastic	Conventional
3	1.10 €/150 g	No probiotics	30% less plastic	Organic
4	0.74 €/150 g	No probiotics	Non-recyclable	Organic
5	0.92 €/150 g	Probiotics	30% less plastic	Organic
6	1.10 €/150 g	Probiotics	100 % recyclable	Organic
7	0.74 €/150 g	Probiotics	100 % recyclable	Organic
8	0.92 €/150 g	Probiotics	Non-recyclable	Organic
9	1.10 €/150 g	Probiotics	Non-recyclable	Conventional

are chosen, the efficiency of the answer and of the estimate should be considered. In particular, this aspect is strongly related to the experimental design and how the attributes are combined and shown to consumers into profiles (Bridges et al., 2011). According to the methodological literature, conjoint experiments should generally include no more than six attributes. Nevertheless, reducing this number can facilitate a more parsimonious experimental design that can be addressed by respondents (McCullough, 2002). By developing a design with a limited number of attributes, it is possible to develop hypothetical products through which consumer tradeoffs can be observed and, consequently, utility estimates can be obtained (Caracciolo et al., 2020).

Since the focus of the paper is related to marketing aspects rather than estimating the willingness to pay for food attributes, a ranking conjoint experiment based on the linear regression model was developed (Annunziata & Vecchio, 2013). The literature indicates that the issues related to the reliability of the answer and of the estimates in ranking conjoint experiment using the OLS model as an econometric approach can be solved by generating an orthogonal design (Bridges et al., 2011). The orthogonal design reduced the number of profiles, or cards, compared to a full factorial design into 9 profiles, as shown in Table 3. Moreover, the reduction of the cards with the orthogonal design avoids overlapping among attributes, eliminating the collinearity as well (Rao, 2013). Indeed, this design can be included in the fractional factorial design type, where the features included in the model are mutually uncorrelated since the level of the attributes occurs in proportional frequencies (Dülmer, 2007). The adoption of the orthogonal design allowed the reduction of the cards to the minimum number to guarantee the reliability of the answers. Moreover, the combination with the OLS also allowed the reliability of the estimates to

be met (Zanchini et al., 2022b). The linear model is also associated with the use of orthogonal design because, in this way, parameter estimates are uncorrelated and independent of each other, limiting their variance and increasing the representativeness of the estimates (Kuhfeld et al., 1994). Aware of the limitations arising from the use of a partial set of attributes, the choice was made by seeking to combine consistent attributes that would produce combinations that were actually possible and identifiable in the market (Molfenter et al., 2011), based also on the innovativeness of the combination that could fill gaps in the literature. This design produced a ranking task that required consumers to rank these cards or profiles from the most favorable profile to the least favorable.

The ranking task produced a dependent variable from 1 to 9 that can be considered a synthetic expression of the combination of attributes that can maximize consumer utility. Indeed, ranking conjoint analysis can be considered a multi-attribute valuation approach based on the random utility theory (Roe et al., 1996). The econometric formalization in Equation (1) (Di Vita et al., 2025b):

$$\widehat{U}_{is} = f_s\left(u_{1(is)}, u_{2(is)}, \ldots\ldots, u_{j(is)}\right) \tag{1}$$

In Equation (1), $\widehat{U}_{is}$ can be considered as the estimated perceived utility that consumers s can obtain from a profile i. The term f_s represent the analytical form used to obtain the utility estimates or the OLS regression in this work. Finally, $u_{j(is)}$ represents the partial utility related to the i profile and the j variable evaluated from the respondent s. The OLS regression uses in ranking conjoint analysis the rank provided by the respondent as the dependent variable. Therefore, the estimates can be directly interpreted as partial utility and the sum of them allow to obtain the most likely profile chosen by the respondent i. The formalization of the model is presented in Equation (2):

$$\widehat{Y}_s = b_{os} + \sum_{j=1}^{m} b_{js} Z_{js} \tag{2}$$

The second equation indicates that the estimated rank $\check{Y}$ from consumers s can be considered the sum of the parameters or coefficients b related to the attribute Z. Moreover, from j = 1 to m indicates that the total utility perceived is the sum of all the attribute levels from a particular profile. As a final indication, in Equation (3) is formalized the equation used to compute the mean relative importance for the included attributes:

$$W_j = \frac{1}{S}\sum_{s=1}^{S} W_j^s \tag{3}$$

From the third equation, it is possible to understand that the mean relative importance can be considered as a weighted sum of ranges being W the mean relative importance; S the number of respondents and W_j^s is an operator that is obtained by dividing the sum of the individual utility range related to a specific attribute over the sum of all the utility ranges related to the entire set of attributes included in the experimental set. Following other papers, the separations between clusters or the presence of significant differences among the utility scores were evaluated using one-way ANOVA being the distribution of the estimates a continuous variable (Annunziata & Vecchio, 2013; Shan et al., 2017).

Cluster analysis

Conjoint analysis provides the individual utility pattern, also known as the individuals' part-worth estimates of consumers, as a utility distribution for each attribute included in the model. Therefore, the individual utility patterns can be considered as a new pool of variables that can be adopted for future analysis (Di Vita et al., 2022). To build homogeneous clusters, a hierarchical clustering was developed using the Ward's method and the square Euclidean distance as a measure of dissimilarity among the observations (Di Vita et al., 2021). The Ward's method is particularly used in conjoint studies since it allows to generate high separated clusters with high homogeneity by minimizing the sum of squared errors (Annunziata et al., 2016; Bogue & Yu, 2013). In this way, it is possible to generate clusters with high compactness and good separation (Ward, 1963). The Ward's method aiming at generating clusters with the lowest sum of square can be formalized in Equation (5).

$$L\left(C1,C2\right)=\frac{n_{C1}n_{C2}}{n_{C1}+n_{C2}}\left|\left|c_{C1}-c_{C2}\right|\right|^2 \tag{4}$$

where $n_{C1}\,and\,n_{C2}$ are the data points in the clusters C1 and C2 and $c_{C1}and\,c_{C2}$ are the centroids of the clusters (Gere, 2023).

An important aspect that has to be addressed when a cluster analysis is conducted is the best cluster solution. The best cluster solution was focused using the agglomeration schedule analysis in combination with the dendrogram interpretation (Aschemann-Witzel et al., 2021; Garone et al., 2019). The agglomeration coefficient can be produced from hierarchical clustering and allows to identify the maximum increase in heterogeneity when a new group is included or removed from a specific cluster solution (Altintzoglou & Heide, 2023; Di Vita et al., 2021; Islam, 2020). In fact, the analysis observes the trend and growth of agglomeration

coefficients generated during the agglomeration of the respondents. The aim is to identify the clustering step beyond which it would be preferable not to go in order to avoid excessive heterogeneity among individuals included in the clusters (Zanchini et al., 2022b). This step allowed us to identify the three-cluster solution as the most suitable.

Finally, inferential tests were required to assess if the distribution of socio-demographics among clusters was random or if significant effects could be observed. Moreover, the score from the explorative items must be assessed to consider if significant differences can be found among groups. Since these variables are not continuous, non-parametric tests have been chosen. The chi-square test was chosen to assess the null hypothesis H_0 or the random distribution of the socio-demographics across the clusters (Franke et al., 2012; Giannetto et al., 2024). The items collected on a Likert scale from 1 to 5 would be difficult to discuss if the contingency table combined with the chi-square had been chosen as the analysis tool. Therefore, the non-parametric ANOVA or the Kruskal-Wallis test was chosen to test the null hypothesis H_0 that the ranks are identical among the groups and consequently there are no significant differences among them (Ostertagová et al., 2014).

Results and discussion

This section presents and discusses the main findings derived from the conjoint analysis and hierarchical cluster analysis.

Conjoint analysis

The conjoint analysis, performed over the entire sample, reveals the relative importance and hierarchical structure of attributes influencing Slovak consumer preferences for Greek yogurt (Table 4). The price attribute holds

Table 4. Conjoint analysis result for the entire sample.

Attributes	Levels	Utility estimates	Standard error	Mean relative importance
Price	0.74 €/150 g	1.405	0.129	40.432
	0.92 €/150 g	0.185	0.129	
	1.10 €/150 g	−1.590	0.129	
Probiotics	No probiotics	−0.062	0.96	16.267
	Probiotics	0.062	0.96	
Packaging	Non-recyclable	−1.222	0.129	29.666
	30% less plastic	0.577	0.129	
	100% recyclable	0.646	0.129	
Production method	Conventional	−0.217	0.096	13.635
	Organic	0.217	0.096	
	Constant	4.907	0.102	
Goodness of fit	Pearson's R	0.996***		
	Kendall's tau	0.944***		

Table 5. Conjoint analysis from the hierarchical clusterisation.

		Utility estimates (SE)	Mean relative importance	Utility estimates (SE)	Mean relative importance	Utility estimates (SE)	Mean relative importance
Attributes	Levels	Cluster 1 (n = 178)		Cluster 2 (n = 105)		Cluster 3 (n = 347)	
Price	0.74 €/150 g***	0.498 (0.149)	17.541	0.083 (0.424)	22.164	2.271 (0.252)	57.703
	0.92 €/150 g***	−0.204 (0.149)		0.200 (0.424)		0.379 (0.252)	
	1.10 €/150 g***	−0.294 (0.149)		−0.283 (0.424)		−2.650 (0.252)	
Probiotics	No probiotics***	−1.208 (0.102)	25.327	1.086 (0.318)	26.745	0.178 (0.189)	8.448
	Probiotics***	1.208 (0.102)		−1.086 (0.318)		−0.178 (0.189)	
Packaging	Non-recyclable***	−1.493 (0.149)	34.652	−0.981 (0.424)	35.432	−1.157 (0.252)	25.364
	30% less plastic***	0.251 (0.149)		1.171 (0.424)		0.564 (0.252)	
	100% recyclable***	1.242 (0.149)		−0.190 (0.424)		0.593 (0.252)	
Production method	Conventional***	−1.083 (0.102)	22.480	0.307 (0.318)	15.660	0.068 (0.189)	8.485
	Organic***	1.083 (0.102)		−0.307 (0.318)		−0.068 (0.189)	
	Constant***	4.236 (0.118)		5.464 (0.336)		5.082 (0.199)	
Goodness of fit	Pearson's R	0.997***		0.957***		0.993***	
	Kendall's tau	1.000***		0.722***		0.944***	

*** = significant p-value < 0.01; SE = Standard error.

the highest relative importance at 40.43%, indicating that consumers are highly sensitive to price variations. The utility estimates show a clear negative trend as price increases, with the lowest price point (0.74 €/150 g) receiving the highest utility (1.405), suggesting that affordability strongly drives consumer choice.

The high importance of price indicates strong price elasticity of demand and is consistent with recent findings in Central and Eastern Europe, where inflationary pressures and lower average purchasing power have intensified price consciousness among consumers (Ilie et al., 2021; Molnár & Hajdú, 2024).

The second most important attribute is packaging (29.67%), underscoring the growing consumer awareness of environmental sustainability. Among packaging options, 100% recyclable packaging yields the highest utility (0.646), while non-recyclable packaging is viewed negatively (−1.222).

This result confirms that economic and environmental drivers outweigh sustainable motivations, reflecting broader European trends in the dairy market (Mazzocchi et al., 2021; Di Vita et al., 2025a), and suggests that consumers favor eco-friendly solutions, reinforcing the need for sustainable product development strategies (Giannetto et al., 2023).

These first two results allow to respond to the first research question (RQ_1) since price and packaging are considered the important attributes of a Greek yogurt. The high interest in low-price yogurt and 100% recyclable packaging can be explained through a combination of economic, psychological, and environmental factors. In fact, price remains a critical factor in consumer decision-making, especially for frequently purchased products like yogurt. According to the existing literature, price-sensitive

consumers seek products that offer the best value for money, often aligning with the concept of utility maximization. In the case of yogurt, low prices may attract budget-conscious shoppers, including students, large families, or individuals with lower disposable income or who are not loyal to a brand (Mohammed & Murova, 2019; Samoggia, 2016).

As for the second attribute, the demand for 100% recyclable packaging is closely linked to the rise of *green consumerism (*Moisander, 2007; Sachdeva et al., 2015). Increasing public awareness about environmental issues, such as plastic pollution and climate change, has prompted consumers to favor sustainable packaging options (Boz et al., 2020; Herrmann et al., 2022). Studies show that consumers often use packaging as a heuristic, or mental shortcut, to gauge a product's environmental impact – recyclable packaging signals eco-friendliness and corporate responsibility (MacDonald & She, 2015; Spack et al., 2012). Consequently, despite this aspect has not been revealed specifically for yogurt consumers, this result appears to be perfectly in line with previous studies that found a positive intention toward the use of recyclable packaging (Wang et al., 2021), since, especially for dairy products, sustainability perceptions among consumers are primarily shaped by the post-use disposal of packaging (Liem et al., 2022).

Probiotics emerge as the third most relevant attribute, with a relative importance of 16.27%. The presence of probiotics slightly increases consumer preference (0.062), indicating a modest but noticeable interest in the health benefits associated with functional ingredients. Lastly, the production method holds a relative importance of 13.64%, with a positive utility for organic production (0.217), compared to a negative perception of conventional methods (−0.217). The results indicate a relatively low importance assigned by Slovak consumers to probiotics and organic production methods when choosing Greek yogurt. This limited interest probably reflects both cultural and market-specific dynamics.

Firstly, this result could be explained, for example, by limited health awareness and perceived benefits. Probably, Slovak consumers may not fully recognize or trust the health benefits associated with these attributes. Studies have shown that the perceived value of probiotics can be diminished if consumers lack knowledge about their role in gut health (Annunziata & Vecchio, 2013; Viana et al., 2008). Similarly, while organic labels imply fewer chemicals and more sustainable practices, their benefits of organic production might not be clearly communicated or understood, reducing their appeal. In fact, the limited interest that Slovak consumers show toward organic options could indeed stem from the fact that organic farming and organic food products are not as widespread or deeply embedded in the Slovak market compared to other European countries.

Secondly, both probiotics and organic certifications often increase product prices (Annunziata & Vecchio, 2011; Carter & Cachelin, 2019; Connolly & Klaiber, 2014), which may deter budget-conscious shoppers. When the added cost is not perceived as justified by tangible health improvements or product quality, consumers may opt for more affordable, conventional options (Ávila et al., 2020). This cost-benefit mismatch could contribute to their lower preference for these attributes. Interestingly, the simultaneous preference for low prices and eco-friendly packaging reflects a dual motivation—balancing economic practicality with ethical considerations and limited interest for organic and probiotic presence allows to display the hierarchical relation among Greek yogurt attributes (RQ_2). This aligns with previous findings, while low prices satisfy personal economic goals, recyclable packaging caters to broader social and environmental values (Liem et al., 2022; Neill & Williams, 2016; Parasuraman et al., 2021). Therefore, while probiotics and organic attributes currently hold niche appeal, they may represent latent opportunities for market growth if supported by educational campaigns and transparent labeling strategies.

Cluster analysis

To explore product differentiation and assess whether attributes such as probiotics and production methods are important to a niche of consumers, a cluster analysis was conducted to identify a common and homogeneous profile (Table 5). The analysis allowed us to identify consumer groups moved from different attributes that had been grouped into three homogeneous clusters (RQ_3) that can be described as follows:

Cluster 1 or green and health-conscious consumers (n = 178)

This group prioritizes sustainability and health attributes. Packaging has the highest mean relative importance (34.65%), with a strong preference for 100% recyclable packaging (utility = 1.242). Probiotics are also valued (25.33%), indicating interest in functional health benefits. Organic production is preferred (22.48%), while price plays a lesser role (17.54%), suggesting a willingness to pay more for sustainable and health-oriented products.

These findings align with previous research, which suggests that health-conscious consumers often value environmentally sustainable options and functional benefits in their food choices (Grunert, 2011; Aschemann-Witzel et al., 2021). Studies show that organic labels and eco-friendly packaging enhance the perceived quality and healthiness of dairy products, reinforcing the preferences observed in this cluster. Furthermore, the interest in probiotics reflects broader trends in health-driven consumption, consistent with previous findings that highlighted the growing consumer

demand for functional dairy products (Ares et al., 2010; Bimbo et al., 2017; Krystallis et al., 2012).

Cluster 2 or traditional consumers (n = 105)

These consumers focus on packaging (35.43%) and probiotics (26.75%), showing a preference for non-recyclable packaging (utility = −0.981) and no probiotics (utility = 1.086). Interestingly, they favor conventional production methods (15.66%) and mid-range prices (22.16%).

The preference of this cluster for familiar attributes suggests they may value traditional yogurt characteristics over modern health or sustainability trends. Similar consumer profiles have been documented in dairy literature, where a segment of consumers remains loyal to traditional production methods and views organic or probiotic claims with skepticism (Hughner et al., 2007). These consumers tend to prioritize taste, familiarity, and affordability over health or environmental attributes, a pattern consistent with the findings of Pieniak et al. (2007). The preference for mid-price products suggests a balance between quality and cost, indicating a more pragmatic approach to yogurt selection.

Cluster 3 – price-sensitive consumers (n = 347)

Price is the dominant factor for this group, with the highest mean relative importance (57.70%). They show a clear preference for the lowest price option (0.74 €/150 g) and are less concerned with other attributes. Probiotics (8.45%) and production methods (8.49%) have minimal influence on their choices, indicating that affordability drives their purchasing decisions. This cluster mirrors findings in the broader literature, where price sensitivity is often a decisive factor for a significant portion of dairy consumers (Van Loo et al., 2011). Research highlights that lower-income or budget-conscious consumers tend to deprioritize attributes such as organic certification or eco-friendly packaging in favor of affordability and basic product quality (Aschemann-Witzel & Zielke, 2017; Chen et al., 2014).

The second step of the cluster analysis aimed to characterize each cluster based on different consumer characteristics (Table 6), providing insights to address the 4th research question (RQ_4).

Cluster 1 is characterized by younger women, highly educated, living in two-member urban households, adhering to healthy, balanced diets. These results are quite in line with previous research, whereby perceived healthiness and socio-demographic factors (female and the highest level of education) lead consumers to be more willing to buy healthy and sustainable dairy products (Ares et al., 2009; Sajdakowska et al., 2018; 2020).

Cluster 2 mainly consists of the middle-aged generation, such as Generation Y or Millennials; it includes consumers with a mid-level of

Table 6. Distribution of the socio-demographic characteristics among the clusters.

Variables	Categories	Cluster 1	Cluster 2	Cluster 3	Chi-square
Age cohort	Generation Z	19.66	16.19	5.19	113.18***
	Generation Y	41.01	41.95	25.36	
	Generation X	37.08	33.33	31.41	
	Baby Boomers	2.25	9.53	38.04	
Diet: Healthy and balance	No	37.64	39.05	67.15	52.79***
	Yes	62.36	60.95	32.85	
Education	High school	53.93	61.91	72.05	17.64***
	University degree	49.07	38.09	27.95	
Family members	1	10.11	17.14	6.92	13.26**
	2	21.35	18.10	15.85	
	3 or more	68.54	64.76	77.23	
Gender	Male	43.82	47.62	53.89	5.058*
	Female	56.18	52.38	46.11	
Net monthly income	Up to 600 €	19.10	20.00	23.06	35.17***
	601–1000	28.09	35.24	26.22	
	1001–1200	21.91	19.05	36.89	
	Higher	30.90	25.71	13.83	
Residence	Rural	49.44	56.19	62.54	8.404**
	Urban	50.56	43.81	37.46	
Worker	No	25.28	27.62	27.38	0.304
	Yes	74.72	79.38	72.62	

***/** = significant p-value, respectively < 0.01; < 0.05.

education, one-member families and a mid-income level. This segment aligns with the "traditionalist" consumer group found in dairy product research, typically comprising middle-aged individuals who favor familiar product attributes and standard production methods. Studies indicate that this demographic prefers conventional dairy products and is less influenced by emerging health trends or premium pricing (Gajda et al., 2025).

Cluster 3 consists of the oldest consumers from Baby Boomers' generation with the lowest level of education; mainly male consumers with both, low and mid to high income. Consumers are mainly from rural areas.

This group corresponds to the "price-sensitive" or "value-seeking" consumers identified in dairy market studies, often older individuals who prioritize affordability over other product attributes. Research indicates that this demographic is less responsive to health claims or sustainable practices, focusing primarily on cost-effectiveness (Šugrová et al., 2018).

Interestingly, the relatively low interest in probiotics among traditional and price-sensitive Slovak consumers may be linked to limited awareness or availability of functional yogurt products, as noted by recent studies (Zanchini et al., 2022a). Similarly, subdued demand for organic options may stem from the restricted supply and visibility of organic dairy products in the Slovak market.

These results underscore the need for differentiated marketing strategies and campaigns. For cluster 1, brands should emphasize eco-friendly packaging, organic production, and probiotics, possibly supported by storytelling and certification logos to reinforce authenticity. Cluster 2 could be addressed through messages emphasizing tradition, taste, and quality consistency, avoiding overly technical or premium positioning. Cluster 3 requires

Table 7. Exploratory items scores by clusters.

Categories	Type	Cluster 1 Mean (sd)	Cluster 2 Mean (sd)	Cluster 3 Mean (sd)	Chi-square
Weight maintenance	Health status item	3.39 (1.27)	3.13 (1.26)	3.38 (1.34)	3.83
Disease prevention	Health status item	3.49 (1.28)	3.46 (1.33)	2.94 (1.18)	30.38***
Low fat content	Claims	2.96 (1.51)	2.85 (1.55)	3.34 (1.43)	11.77***
Low sugar content	Claims	3.16 (1.51)	2.88 (1.45)	2.97 (1.37)	3.22
High protein	Claims	3.47 (1.50)	3.00 (1.45)	2.57 (1.42)	41.91***
Natural	Claims	3.74 (1.58)	3.34 (1.56)	2.07 (1.38)	131.92***
Nutri-Score	Extrinsic cue	3.22 (1.53)	2.71 (1.53)	1.64 (1.06)	142.29***

***= significant p-value < 0.01.

value-oriented promotions and visible affordability cues, while gradually introducing sustainability claims to build familiarity over time.

Finally, the study aimed to explore the importance of exploitative items consisting of health-status items, nutritional claims and extrinsic cues (Table 7). These aspects can be used to further differentiate yogurt and, in this way, to reach more consumers or to enhance the value for green consumers by communicating food attributes on the label (RQ_5). The cluster analysis reveals significant differences in health-related preferences and claims among consumer groups: Green and Health-Conscious Consumers (C_1) seem to be enthusiastic, as they show the highest scores for different items. They value high-protein content and natural claims the most, indicating a strong focus on health-conscious choices.

These results corroborate the positive attitudes toward dairy protein, which exhibits the strongest responsiveness to high-protein and natural claims and aligns with broader market trends since the high-protein dairy segment is expanding rapidly and continues to attract health-oriented consumers, who accept premium positioning when functional benefits are credible (Li & Dando, 2019). This evidence supports the strategic targeting of such consumer segments through transparent, evidence-based functional claims, for instance, by highlighting antioxidant levels, protein content, or scientifically validated health benefits.

Results also confirm how it is also associated with low interest for low fat yogurt. As recently observed, consumers' preferences for low-fat yogurt reflect a tradeoff between health motives and sensory expectations. Many consumers perceive low-fat dairy as healthier and choose it for weight control or cardiovascular concerns; this motivates purchase among health-oriented and price-sensitive segments. Conversely, other consumers prefer full-fat or higher-fat formulations because fat enhances creaminess, mouthfeel, overall flavor intensity and satiety, leading to higher hedonic ratings in some sensory studies. Empirical work shows that both tendencies coexist in contemporary markets, and segmentation typically identifies distinct groups, health-driven vs. taste-driven, with divergent WTP and label responsiveness (Collins & Lalor, 2024).

Finally, traditional consumers show moderate interest across all health- and nutrition-related attributes, with a slight inclination toward disease

prevention and natural product claims. This behavior reflects a balanced but less pronounced health concern, consistent with consumers who appreciate familiar products and moderate innovation, yet still value perceived naturalness and healthiness (Ballco & De Magistris, 2019; Vecchio et al., 2016). Recent experimental studies reinforce this interpretation. Chang et al. (2022) demonstrated that consumers who identify as "traditionalists" or "habitual buyers" show higher purchase intent for yogurts labeled as natural or traditional recipes rather than fortified or enriched, even when objective nutritional profiles are superior. Consequently, traditional consumers represent a stable yet strategic target for yogurt producers. Their moderate interest in disease-preventive and natural claims points to the importance of subtle, trustworthy communication rather than overt health messaging. Maintaining a sense of product familiarity while highlighting genuine, natural, and moderate health benefits (e.g., rich in live cultures, natural ingredients) may strengthen appeal within this segment.

Price-sensitive consumers prioritize low-fat content, consider quite important weight maintenance but show lower interest in health-related claims, with the weakest preference for natural claims, suggesting less health-driven purchasing behavior. This segment typically values price-quality tradeoffs and functional simplicity over abstract health or sustainability attributes and tends to prioritize basic nutritional cues (Sogari et al., 2023; Steinhauser & Hamm, 2018). Price-sensitive consumers represent a segment guided by practical health motives but constrained by economic and cognitive factors. Statistically significant differences ($p < 0.001$) highlight the varying degrees of health awareness and label responsiveness, emphasizing the need for tailored marketing strategies for consumers in each group. Their behavior underscores the importance of clear front-of-pack information and competitive pricing strategies for positioning low-fat or basic functional yogurts within mass-market channels.

Conclusion

Several aspects of interest were developed in this study, allowing a first analysis of the preferences of Greek yogurt consumers in Slovakia. The first result suggests that the main drivers for the choice of Greek yogurt are price and packaging, while organic certification and probiotics are secondary or indifferent drivers, respectively. In particular, consumers are interested in low-priced products and the possibility of recycling all packaging components.

A deeper analysis using hierarchical cluster analysis identified three consumer groups that attach importance to different product attributes. In fact, even organic certification and probiotics can be used to

differentiate the product, thus reaching a niche of consumers called green and health-conscious consumers.

Associations between socio-demographic characteristics and attributes were confirmed, such as young consumers' interest in product sustainability, the relation between healthy diet and functional characteristics, and women's interest in organic certification. Finally, the exploratory analysis suggested that Greek yogurt can be further differentiated by including information on protein, fat and sugar content as well as the naturalness of the product on the label.

In conclusion, this cluster analysis highlights the heterogeneity of yogurt consumers, confirming patterns observed in prior research while offering specific insights into the Slovak context. Understanding these segments allows for targeted marketing strategies, whether emphasizing eco-friendly innovations, reinforcing traditional product qualities, or offering affordable options to cater to price-conscious purchasers.

Implications

These findings highlight potential areas for product differentiation, especially by aligning eco-conscious packaging with competitive pricing strategies. The results highlight a clear hierarchical structure of attributes across clusters: sustainability and health focus for Cluster 1, tradition for Cluster 2, and price sensitivity for Cluster 3. These insights are useful for marketing strategies of dairy companies and can guide targeted product differentiation strategies, such as premium, eco-friendly and healthy options for Cluster 1 and budget-friendly alternatives for Cluster 3.

Given the strong preference for recyclable and reduced-plastic packaging across clusters, producers should invest in sustainable packaging technologies. This can enhance brand image and meet rising consumer demand for environmentally friendly products. In addition, considering the importance of probiotics for Cluster 1, producers should expand product lines with added functional benefits (e.g., gut health, immunity support) and clearly communicate these benefits through marketing campaigns. These, in this context, should be conceived not merely as a set of promotional actions but as a strategic communication and positioning process that integrates consumer insights, sustainability goals, and brand differentiation. Companies should thus present sustainable packaging as both an ethical and functional advantage. The campaign should also include educational content to bridge consumer knowledge gaps on probiotics, organic production, and eco-friendly packaging, using tools such as social media infographics, QR codes on labels, or in-store materials.

In terms of marketing, the study validates the importance of demographic and psychographic factors in shaping preferences. It emphasizes that price alone does not drive choices-values, education, and lifestyle also play crucial roles. By confirming that sustainable packaging and organic attributes resonate with specific consumer segments, the results of this study reinforce the need for triple-bottom-line strategies.

Finally, regarding policy implications, this study suggests encouraging the use of recyclable packaging and organic production methods by offering subsidies or tax incentives to producers who adopt sustainable practices and by running education programs for consumers about the benefits of probiotics, organic foods, and eco-friendly packaging.

Limitations and future research

Although this study appears to be statistically robust due to its representativeness in terms of socio-demographic characteristics and sample size, it is important to define the limitations. This study is based on stated preferences; consequently, it is possible that it is affected by the hypothetical bias, which leads to a positive overestimation of the coefficients calculated with the conjoint model. In fact, in a hypothetical situation, consumers can choose or evaluate an expensive product better because they are not required to buy it and thus are not subjected to a real economic loss. Furthermore, the conjoint study adopted in the experimental design only a partial combination of Greek yogurt attributes, thus not being able to provide a complete picture of the partial utility. Finally, several exploratory single items were used, which might provide different results in other countries than those obtained in Slovakia.

Concerning future research, other works could include attributes that are still little explored in this specific product, such as social and environmental certifications or certifications related to geographical origin. Claims related to the animal welfare of farms that deliver milk to the processing industries could be investigated. For Greek yogurt, the evaluation of claims related to the presence of proteins, fats and sugars is also of interest. The model for the estimation of utility could be changed from linear to logistic-based regressions from a perspective focused on the evaluation of willingness to pay. Finally, validated psychometric constructs could be used in combination with conjoint analyses to gain a better understanding of food consumption drivers.

Green and Health-Conscious consumers exhibit high alignment between personal values and environmental behavior, whereas Traditional and Price-Sensitive clusters reveal attitudinal-behavioral gaps, suggesting lower perceived control or social norm pressure. Future research could therefore incorporate psychometric constructs to model these pathways explicitly.

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The questionnaire used in this study was designed and administered in accordance with the guidelines outlined in the Declaration of Helsinki. Prior to participation, all respondents were provided with clear information about the study and gave their informed consent. Data were collected anonymously and analysed in aggregated form, ensuring the complete anonymity and confidentiality of all participants.

Authors' contributions

Raffaele Zanchini: Data analyses, Data curation, Writing – review & editing, Writing – original draft, Project administration, Supervision, Funding acquisition; Peter Šedík: Conceptualization, Funding acquisition, Writing – original draft, Writing – review & editing; Martina Hudecová: Conceptualization, Project administration, Funding acquisition, Writing – original draft, Writing – review & editing; Giuseppe di Vita: Supervision, Writing – original draft, Writing – review & editing.

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Data availability statement

The data that support the findings of this study are available from the corresponding author, upon reasonable request.

References

Ahmadi Kaliji, S., Mojaverian, S. M., Amirnejad, H., & Canavari, M. (2019). Factors affecting consumers' dairy products preferences. *AGRIS On-Line Papers in Economics and Informatics*, *11*(2), 3–11.

Altintzoglou, T., & Heide, M. (2023). Identifying consumer openness to new ingredients: A conjoint study on consumer segments in the UK. *Frontiers in Aquaculture*, *2*, 1037014. https://doi.org/10.3389/faquc.2023.1037014

Annunziata, A., & Vecchio, R. (2011). Functional foods development in the European market: A consumer perspective. *Journal of Functional Foods*, *3*(3), 223–228. https://doi.org/10.1016/j.jff.2011.03.011

Annunziata, A., & Vecchio, R. (2013). Consumer perception of functional foods: A conjoint analysis with probiotics. *Food Quality and Preference*, *28*(1), 348–355. https://doi.org/10.1016/j.foodqual.2012.10.009

Annunziata, A., Pomarici, E., Vecchio, R., & Mariani, A. (2016). Nutritional information and health warnings on wine labels: Exploring consumer interest and preferences. *Appetite*, *106*, 58–69. https://doi.org/10.1016/j.appet.2016.02.152

Ares, G., Giménez, A., & Deliza, R. (2010). Influence of three non-sensory factors on consumer choice of functional yogurts over regular ones. *Food Quality and Preference*, *21*(4), 361–367. https://doi.org/10.1016/j.foodqual.2009.09.002

Ares, G., Giménez, A., & Gámbaro, A. (2009). Consumer perceived healthiness and willingness to try functional milk desserts. Influence of ingredient, ingredient name and health claim. *Food Quality and Preference*, *20*(1), 50–56. https://doi.org/10.1016/j.foodqual.2008.07.002

Aschemann-Witzel, J., & Zielke, S. (2017). Can't buy me green? A review of consumer perceptions of and behavior toward the price of organic food. *Journal of Consumer Affairs*, *51*(1), 211–251. https://doi.org/10.1111/joca.12092

Aschemann-Witzel, J., de Hooge, I. E., & Almli, V. L. (2021). My style, my food, my waste! Consumer food waste-related lifestyle segments. *Journal of Retailing and Consumer Services*, *59*, 102353. https://doi.org/10.1016/j.jretconser.2020.102353

Ávila, B. P., da Rosa, P. P., Fernandes, T. A., Chesini, R. G., Sedrez, P. A., de Oliveira, A. P. T., Mota, G. N., Gularte, M. A., & Roll, V. F. B. (2020). Analysis of the perception and behavior of consumers regarding probiotic dairy products. *International Dairy Journal*, *106*, 104703. https://doi.org/10.1016/j.idairyj.2020.104703

Avishka, A. M. N., Rathnayaka, T., & Lakmini, G. W. A. S. (2024). Formulation and quality assessment of Greek-style drinking yogurt utilizing whey from mozzarella cheese production. In *Proceedings of the annual research symposium 2024* (pp. 327). University of Colombo.

Baker, P., Machado, P., Santos, T., Sievert, K., Backholer, K., Hadjikakou, M., Russell, C., Huse, O., Bell, C., Scrinis, G., Worsley, A., Friel, S., & Lawrence, M. (2020). Ultra-processed foods and the nutrition transition: Global, regional and national trends, food systems transformations and political economy drivers. *Obesity Reviews: An Official Journal of the International Association for the Study of Obesity*, *21*(12), e13126. https://doi.org/10.1111/obr.13126

Ballco, P., & De Magistris, T. (2019). Spanish consumer purchase behavior and stated preferences for yogurts with nutritional and health claims. *Nutrients*, *11*(11), 2742. https://doi.org/10.3390/nu11112742

Ballco, P., Piqueras-Fiszman, B., & van Trijp, H. C. (2022). The influence of consumption context on indulgent versus healthy yoghurts: Exploring the relationship between the associated emotions and the actual choices. *Sustainability*, *14*(13), 8224. https://doi.org/10.3390/su14138224

Bimbo, F., Bonanno, A., Nocella, G., Viscecchia, R., Nardone, G., De Devitiis, B., & Carlucci, D. (2017). Consumers' acceptance and preferences for nutrition-modified and functional dairy products: A systematic review. *Appetite*, *113*, 141–154. https://doi.org/10.1016/j.appet.2017.02.031

Bogue, J., & Yu, H. (2013). Concept optimisation of fermented functional cereal beverages. *British Food Journal*, *15*, 541–563. https://doi.org/10.1108/00070701311317838

Bousbia, A., Boudalia, S., Chelia, S., Oudaifia, K., Amari, H., Benidir, M., Belkheir, B., & Hamzaoui, S. (2017). Analysis of factors affecting consumer behavior of dairy products in Algeria: A case study from the region of Guelma. *International Journal of Agricultural Research*, *12*(2), 93–101. https://doi.org/10.3923/ijar.2017.93.101

Boz, Z., Korhonen, V., & Koelsch Sand, C. (2020). Consumer considerations for the implementation of sustainable packaging: A review. *Sustainability*, *12*(6), 2192. https://doi.org/10.3390/su12062192

Bridges, J. F. P., Hauber, A. B., Marshall, D., Lloyd, A., Prosser, L. A., Regier, D. A., Johnson, F. R., & Mauskopf, J. (2011). Conjoint analysis applications in health–a checklist: A report of the ISPOR good research practices for conjoint analysis task force.

Value in Health: The Journal of the International Society for Pharmacoeconomics and Outcomes Research, *14*(4), 403–413. https://doi.org/10.1016/j.jval.2010.11.013

Brückner, K., Emberger-Klein, A., & Menrad, K. (2023). The role of emotions in food-related decision-making: A choice-based conjoint analysis of yogurt preferences. *Journal of Food Products Marketing*, *29*(6), 177–196. https://doi.org/10.1080/10454446.2023.2227575

Brun, F., Zanchini, R., Mosso, A., & Di Vita, G, Department of Agricultural, Forestry and Food Sciences (DISAFA), University of Turin, Turin, Italy. (2020). Testing consumer propensity towards novel optional quality terms: An explorative assessment of" mountain" labelled honey. *AIMS Agriculture and Food*, *5*(2), 190–203. https://doi.org/10.3934/agrfood.2020.2.190

Caracciolo, F., Cavallo, C., Del Giudice, T., Panico, T., Vecchio, R., & Cicia, G. (2020). Consumers (dis) preference for bitterness in extra virgin olive oil: A field experiment. *International Journal on Food System Dynamics*, *11*(1), 14–25. https://doi.org/10.18461/ijfsd.v11i1.36

Carrillo, E., Prado-Gascó, V., Fiszman, S., & Varela, P. (2013). Why buying functional foods? Understanding spending behavior through structural equation modelling. *Food Research International*, *50*(1), 361–368. https://doi.org/10.1016/j.foodres.2012.10.045

Carter, D. P., & Cachelin, A. (2019). The consumer costs of food certification: A pilot study and research opportunities. *Journal of Consumer Affairs*, *53*(2), 652–661. https://doi.org/10.1111/joca.12196

Cerjak, M., & Tomić, M. (2015). Buying motives and trust of young consumers for functional fermented dairy Products: Evidence from croatian students. *Journal of International Food & Agribusiness Marketing*, *27*(3), 177–187. https://doi.org/10.1080/08974438.2014.918919

Chandan, R. C. (2017). An overview of yogurt production and composition. In Shah, N.P. (Ed.), *Yogurt in health and disease prevention* (pp. 31–47). Academic Press.

Chaney, D., Touzani, M., & Ben Slimane, K. (2017). Marketing to the (new) generations: Summary and perspectives. *Journal of Strategic Marketing*, *25*(3), 179–189. https://doi.org/10.1080/0965254x.2017.1291173

Chang, M. Y., Huang, C. C., Du, Y. C., & Chen, H. S. (2022). Choice experiment assessment of consumer preferences for yogurt products attributes: Evidence from Taiwan. *Nutrients*, *14*(17), 3523. https://doi.org/10.3390/nu14173523

Chatzoudes, D., Ioakeimidou, D., & Chatzoglou, P. (2024). Examining the intention of Greek consumers to purchase functional yoghurts: An empirical survey. In Mavri, M., Ikouta Mazza, P., Karasavvoglou, A., & Polychronidou, P. (Eds.), *Economic growth, prosperity and sustainability in the economies of the Balkans and Eastern European countries. EBEEC 2023. Springer Proceedings in Business and Economics*. Springer. https://doi.org/10.1007/978-3-031-58437-4_19

Chen, J., Lobo, A., & Rajendran, N. (2014). Drivers of organic food purchase intentions in mainland China–Evaluating potential customers' attitudes, demographics and segmentation. *International Journal of Consumer Studies*, *38*(4), 346–356. https://doi.org/10.1111/ijcs.12095

Collins, N., & Lalor, F. (2024). Consumer behaviour towards milk and dairy yoghurt products carrying nutrition and health claims: A qualitative study. *Nutrition & Food Science*, *54*(1), 56–70. https://doi.org/10.1108/NFS-11-2022-0374

Conjointly. (2023). *Sample size calculator and guide to survey sample size.* https://conjointly.com/blog/sample-size-calculator/#calculator

Connolly, C., & Klaiber, H. A. (2014). Does organic command a premium when the food is already local? *American Journal of Agricultural Economics*, *96*(4), 1102–1116. https://doi.org/10.1093/ajae/aau030

Dabija, D. C., Chebeň, J., & Lančarič, D. (2017). Cross-cultural investigation of consumers' generations attitudes towards purchase of environmentally friendly products in apparel retail. *Studies in Business and Economics*, *12*(3), 27–42. https://doi.org/10.1515/sbe-2017-0034

de Moraes Prata Gaspar, M. C., Soar, C., Aguilera, M., Gomez, M. C., Celorio-Sardà, R., Comas-Basté, O., & Vidal-Carou, M. C. (2024). What is considered healthy eating? An exploratory study among college students of nutrition and food science. *Nutrients*, *16*(9), 1365. https://doi.org/10.3390/nu16091365

Demirci, T., Akın, N., Öztürk, H. İ., & Oğul, A. (2022). A metagenomic approach to homemade back-slopped yogurts produced in mountainous villages of Turkey with the potential next-generation probiotics. *LWT*, *154*, 112860. https://doi.org/10.1016/j.lwt.2021.112860

Desai, N. T., Shepard, L., & Drake, M. A. (2013). Sensory properties and drivers of liking for Greek yogurts. *Journal of Dairy Science*, *96*(12), 7454–7466. https://doi.org/10.3168/jds.2013-6973

Di Vita, G., Hamam, M., Liotta, L., Lopreiato, V., Lunetta, M., Consentino, F., & Spina, D. (2025a). The taste of sustainability: Sensory experience and stated preference trade-offs in consumer evaluation of goat cheese from extensive farming systems. *Foods (Basel, Switzerland)*, *14*(18), 3197. https://doi.org/10.3390/foods14183197

Di Vita, G., Maesano, G., Zanchini, R., Barbieri, C., Spina, D., Caracciolo, F., & D'Amico, M. (2022). The thin line between tradition and well-being: Consumer responds to health and typicality attributes for dry-cured ham. *Journal of Cleaner Production*, *364*, 132680. https://doi.org/10.1016/j.jclepro.2022.132680

Di Vita, G., Vecchio, R., Borrello, M., Zanchini, R., Maesano, G., Gulisano, G., Brun, F., & D'Amico, M. (2021). Oh my darling clementine: Heterogeneous preferences for sustainable citrus fruits. *Renewable Agriculture and Food Systems*, *36*(6), 557–568. https://doi.org/10.1017/s174217052100017x

Di Vita, G., Zanchini, R., Spina, D., Pappalardo, G., Schimmenti, E., & D'Amico, M. (2025b). The hierarchical utility of credence attributes of orange marmalade: What do consumers look for in a multi-claim food product? *Journal of Marketing Communications*, *31*(6), 679–708. https://doi.org/10.1080/13527266.2023.2273539

do Carmo Vieira, T., Pinto, V. R. A., Rocha, F., dos Santos Pires, A. C., Minim, V. P. R., & Vidigal, M. C. T. R. (2022). New insights into perceptions of technology claims in greek-style yogurt: A view in the COVID-19 pandemic. *Food Research International*, *161*, 111822.

Dülmer, H. (2007). Experimental plans in factorial surveys: Random or quota design?. *Sociological Methods & Research*, *35*(3), 382–409. https://doi.org/10.1177/0049124106292367

Fang, T., Cao, H., Wang, Y., Gong, Y., & Wang, Z. (2023). Global scientific trends on healthy eating from 2002 to 2021: A bibliometric and visualized analysis. *Nutrients*, *15*(6), 1461. https://doi.org/10.3390/nu15061461

Fantechi, T., Contini, C., Casini, L., & Lähteenmäki, L. (2025). Dietary dilemmas: Navigating trade-offs in food choice for sustainability, health, naturalness, and price. *Food Quality and Preference*, *129*, 105497. https://doi.org/10.1016/j.foodqual.2025.105497

Franke, T. M., Ho, T., & Christie, C. A. (2012). The chi-square test: Often used and more often misinterpreted. *American Journal of Evaluation*, *33*(3), 448–458. https://doi.org/10.1177/1098214011426594

Gajda, R., Jeżewska-Zychowicz, M. J., & Kubacki, R. (2025). *Physical activity, taste preferences, selected socioeconomic characteristics: Differentiate consumer behavior older adults in the dairy market in Poland–pilot study.*

Garone, A., Pynoo, B., Tondeur, J., Cocquyt, C., Vanslambrouck, S., Bruggeman, B., & Struyven, K. (2019). Clustering university teaching staff through UTAUT: Implications for the acceptance of a new learning management system. *British Journal of Educational Technology*, *50*(5), 2466–2483. https://doi.org/10.1111/bjet.12867

Garzón, G. A., Medina, J. L., Montana, T. L., Sánchez, M., Novoa, C. F., & Gutiérrez, L. F. (2021). Utilization of *Vaccinium meridionale* S. pomace as an eco-friendly and functional colorant in Greek-style yogurt. *Journal of Food Science*, *86*(9), 3896–3908. https://doi.org/10.1111/1750-3841.15872

Gere, A. (2023). Recommendations for validating hierarchical clustering in consumer sensory projects. *Current Research in Food Science*, *6*, 100522. https://doi.org/10.1016/j.crfs.2023.100522

Giannetto, C., Biondi, V., Previti, A., De Pascale, A., Monti, S., Alibrandi, A., Zirilli, A., Lanfranchi, M., Pugliese, M., & Passantino, A. (2023). Willingness to pay a higher price for pork obtained using animal-friendly raising techniques: A consumers' opinion survey. *Foods (Basel, Switzerland)*, *12*(23), 4201. https://doi.org/10.3390/foods12234201

Giannetto, C., De Pascale, A., Di Vita, G., & Lanfranchi, M. (2024). Can an apple a day keep COVID-19 away? A cluster analysis of the long-term COVID-19 pandemic's impact on the consumption of apples in Italy. *British Food Journal*, *126*(13), 40–56. https://doi.org/10.1108/bfj-06-2023-0465

Grunert, K. G. (2011). Sustainability in the food sector: A consumer behavior perspective. *International Journal on Food System Dynamics*, *2*(3), 207–218. https://doi.org/10.18461/ijfsd.v2i3.232

Gyawali, R., Feng, X., Chen, Y. P., Lorenzo, J. M., & Ibrahim, S. A. (2022). A review of factors influencing the quality and sensory evaluation techniques applied to Greek yogurt. *Journal of Dairy Research*, *89*(2), 213–219.

Herrmann, C., Rhein, S., & Sträter, K. F. (2022). Consumers' sustainability-related perception of and willingness-to-pay for food packaging alternatives. *Resources, Conservation and Recycling*, *181*, 106219. https://doi.org/10.1016/j.resconrec.2022.106219

Hughner, R. S., McDonagh, P., Prothero, A., Shultz, C. J., & Stanton, J. (2007). Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behaviour*, *6*(2–3), 94–110. https://doi.org/10.1002/cb.210

Hysen, B., Mensur, V., Muje, G., Hajrip, M., Halim, G., Iliriana, M., & Njazi, B. (2008). Analysis of consumer behavior in regard to dairy products in Kosovo. *Journal of Agricultural Research*, *46*(3), 311–320.

Ilić, N., Belović, M., Memiši, N., Pestorić, M., Škrobot, D., Pezo, L., Jevtić-Mučibabić, R., Sanz, Y., & Brouzes, J. (2024). Rheological properties and sensory profile of yoghurt produced with novel combination of probiotic cultures. *Foods (Basel, Switzerland)*, *13*(19), 3021. https://doi.org/10.3390/foods13193021

Ilie, D. M., Lădaru, G. R., Diaconeasa, M. C., & Stoian, M. (2021). Consumer choice for milk and dairy in Romania: Does income really have an influence? *Sustainability*, *13*(21), 12204. https://doi.org/10.3390/su132112204

Islam, M. (2020). Are students really cautious about food waste? Korean students' perception and understanding of food waste. *Foods (Basel, Switzerland)*, *9*(4), 410. https://doi.org/10.3390/foods9040410

Jezewska-Zychowicz, M. (2009). Impact of beliefs and atitudes on young consumers' wilingness to use functional fod. *Polish Journal of Food and Nutrition Sciences*, *59*(2), 183–187.

Jürkenbeck, K. (2023). The effect of information among established and new sustainability labelling on consumers' preference and willingness to pay. *Cleaner and Responsible Consumption*, *10*, 100131. https://doi.org/10.1016/j.clrc.2023.100131

Kalamian, M. (2017). *Keto for cancer: Ketogenic metabolic therapy as a targeted nutritional strategy*. Chelsea Green Publishing.

Kapsdorferová, Z., & Nagyová, L. (2005). Consumer behavior at the Slovak dairy market. *Agricultural Economics (Zemědělská Ekonomika)*, *51*(8), 362–368. https://doi.org/10.17221/5120-agricecon

Kim, S. Y., Hyeonbin, O., Lee, P., & Kim, Y. S. (2020). The quality characteristics, antioxidant activity, and sensory evaluation of reduced-fat yogurt and nonfat yogurt supplemented with basil seed gum as a fat substitute. *Journal of Dairy Science*, *103*(2), 1324–1336. https://doi.org/10.3168/jds.2019-17117

Košičiarová, I., Kádeková, Z., Holotová, M., Kubicová, Ľ., & Predanocyová, K. (2020). Consumer preferences in the content of loyalty to the yogurt brand. *Agris on-Line Papers in Economics and Informatics*, *12*(01), 37–48. https://doi.org/10.7160/aol.2020.120104

KrivošíKová, A., Nagyová, Ľ., Kubelaková, A., & Mokrý, S. (2019). Consumer preferences on milk market: Evidence from Slovak Republic. *Potravinarstvo Slovak Journal of Food Sciences*, *13*(1), 961–970. https://doi.org/10.5219/1221

Krystallis, A., Grunert, K. G., de Barcellos, M. D., Perrea, T., & Verbeke, W. (2012). Consumer attitudes towards sustainability aspects of food production: Insights from three continents. *Journal of Marketing Management*, *28*(3–4), 334–372. https://doi.org/10.1080/0267257x.2012.658836

Kubelaková, A., & Šugrová, M. (2017). Habit or choice? The decision-making process of young generation in purchasing dairy products in the Slovak Republic. In *Proceedings of the International Scientific Conference: International Day of Science 2017* (pp. 113–120). Moravian University College Olomouc.

Kubicová, L., Kadeková, K., & Dobák, D. (2014). "Trends in consumption of milk and dairy products in Slovakia after EU accession", *Zeszyty Naukowe Szkoły Głównej Gospodarstwa Wiejskiego w Warszawie. Polityki Europejskie. Finanse i Marketing*, *12*(61), 90–97.

Kubicová, L., Predanocyová, K., & Kádeková, Z. (2019). The importance of milk and dairy products consumption as a part of rational nutrition. *Slovak Journal of Food Sciences/Potravinarstvo*, *13*(1), 234–243.

Kubicová, Ľ., Predanócyová, K., Šedík, P., Smutka, L., Kádeková, Z., & Košičiarová, I. (2021). Consumption trends of milk and dairy products in Slovakia and its comparison with other V4 countries. *Innovative Marketing*, *17*(3), 56–73. https://doi.org/10.21511/im.17(3).2021.05

Kuhfeld, W. F., Tobias, R. D., & Garratt, M. (1994). Efficient experimental design with marketing research applications. *Journal of Marketing Research*, *31*(4), 545–557. https://doi.org/10.2307/3151882

Lean, M. E. J. (2015). Principles of human nutrition. *Medicine*, *43*(2), 61–65. https://doi.org/10.1016/j.mpmed.2014.11.009

Li, T., & Dando, R. (2019). Impact of common food labels on consumer liking in vanilla yogurt. *Foods (Basel, Switzerland)*, *8*(11), 584. https://doi.org/10.3390/foods8110584

Liem, D. G., In't Groen, A., & van Kleef, E. (2022). Dutch consumers' perception of sustainable packaging for milk products, a qualitative and quantitative study. *Food Quality and Preference*, *102*, 104658. https://doi.org/10.1016/j.foodqual.2022.104658

MacDonald, E. F., & She, J. (2015). Seven cognitive concepts for successful eco-design. *Journal of Cleaner Production*, *92*, 23–36. https://doi.org/10.1016/j.jclepro.2014.12.096

Mancuso, T., De Cianni, R., Di Vita, G. A., Spada, E., Brun, F., Spadaro, D. C., & Zanchini, R. (2024). Understanding Italian consumers' perceptions of tomato agricultural inno-

vation: Exploring the nexus between sustainability, health and consumer beliefs. *Journal of Cleaner Production*, *435*, 140528. https://doi.org/10.1016/j.jclepro.2023.140528

Martins, N., Oliveira, B., & Ferreira, I. C. (2018). Development of functional dairy foods. *Bioactive molecules in food* (pp. 1–19). Springer. https://doi.org/10.1007/978-3-319-78030-6_35

Massaglia, S., Borra, D., & Merlino, V. M. (2019). Goat dairy product assortment in different sales channels in northwestern Italy. *Animals*, *9*(10), 823. https://doi.org/10.3390/ani9100823

Mazzocchi, C., Orsi, L., & Sali, G. (2021). Consumers' attitudes for sustainable mountain cheese. *Sustainability*, *13*(4), 1743. https://doi.org/10.3390/su13041743

McCullough, D. (2002). A user's guide to conjoint analysis. *Marketing Research*, *14*(2), 18–23.

Ministry of Agriculture and Rural Development of the Slovak Republic. (2022). *Mlieko: Komoditná situačná a výhľadová správa k 31.12.2021*. https://www.vuepp.sk///dokumenty/komodity/2022/Mlieko_2022_05.pdf

Mohammed, R., & Murova, O. (2019). The effect of price reduction on consumer's buying behavior in the US differentiated yogurt market. *Applied Economics and Finance*, *6*(2), 32–42. https://doi.org/10.11114/aef.v6i2.3891

Moisander, J. (2007). Motivational complexity of green consumerism. *International Journal of Consumer Studies*, *31*(4), 404–409. https://doi.org/10.1111/j.1470-6431.2007.00586.x

Molfenter, T., Ford, J. H., & Bhattacharya, A. (2011). The development and use of a model to predict sustainability of change in healthcare settings. *International Journal of Information Systems and Change Management*, *5*(1), 22–35. https://doi.org/10.1504/IJISCM.2011.039068

Molnár, L., & Hajdú, N. (2024). Food consumption patterns and trends in response to inflationary pressures. *Prosperitas*, *11*(1), 1–13. https://doi.org/10.31570/prosp_2023_0079

Moore, J. B., Horti, A., & Fielding, B. A. (2018). Evaluation of the nutrient content of yogurts: A comprehensive survey of yogurt products in the major UK supermarkets. *BMJ Open*, *8*(8), e021387. https://doi.org/10.1136/bmjopen-2017-021387

Neill, C. L., & Williams, R. B. (2016). Consumer preference for alternative milk packaging: The case of an inferred environmental attribute. *Journal of Agricultural and Applied Economics*, *48*(3), 241–256. https://doi.org/10.1017/aae.2016.17

Nelluri, K. D., & Thota, N. S. (2018). Challenges in emerging food-borne diseases. In *Food safety and preservation* (pp. 231–268). Academic Press.

Ortiz, Y., García-Amézquita, E., Acosta, C. H., & Sepúlveda, D. R. (2017). *Functional dairy products* (pp. 67–103). Springer.

Ostertagová, E., Ostertag, O., & Kováč, J. (2014). Methodology and application of the Kruskal-Wallis test. *Applied Mechanics and Materials*, *611*, 115–120. https://doi.org/10.4028/www.scientific.net/amm.611.115

Pappa, E. C., Kondyli, E., Pappas, A. C., Kyriakaki, P., Zoidis, E., Papalamprou, L., Karageorgou, A., Simitzis, P., Goliomytis, M., Tsiplakou, E., & Georgiou, C. A. (2024). Physicochemical characteristics of commercially available Greek yogurts. *Dairy*, *5*(3), 436–450. https://doi.org/10.3390/dairy5030034

Parasuraman, B., Singh, P., Nachimuthu, S., Arumugam, V., & Kumar, A. (2021). Consumers' choice and preferences of dairy based products. *Indian Journal of Animal Sciences*, *91*(11), 998–1001. https://doi.org/10.56093/ijans.v91i11.118159

Pei, R., Martin, D. A., DiMarco, D. M., & Bolling, B. W. (2017). Evidence for the effects of yogurt on gut health and obesity. *Critical Reviews in Food Science and Nutrition*, *57*(8), 1569–1583. https://doi.org/10.1080/10408398.2014.883356

Pertami, S. B., Yunitasari, E., Budiono, B., Yulifah, R., Astuti, N. P., Herawati, T., Arifah, S. N., & Atho'illah, M. F., Faculty of Nursing, Universitas Airlangga,Surabaya 60115, Indonesia. (2024). Bioactive compounds and antioxidant activity in Greek-style yogurt infused with shield aralia leaves. *Natural and Life Sciences Communications*, *23*(3), e2024045. https://doi.org/10.12982/nlsc.2024.045

Pieniak, Z., Verbeke, W., Scholderer, J., Brunsø, K., & Olsen, S. O. (2007). European consumers' use of and trust in information sources about fish. *Food Quality and Preference*, *18*(8), 1050–1063. https://doi.org/10.1016/j.foodqual.2007.05.001

Rao, V. (2013). Applied conjoint analysis. In *Applied conjoint analysis*. Springer. https://doi.org/10.1007/978-3-540-87753-0

Rashwan, A. K., Osman, A. I., & Chen, W. (2023). Natural nutraceuticals for enhancing yogurt properties: A review. *Environmental Chemistry Letters*, *21*(3), 1907–1931. https://doi.org/10.1007/s10311-023-01588-0

Roe, B., Boyle, K. J., & Teisl, M. F. (1996). Using conjoint analysis to derive estimates of compensating variation. *Journal of Environmental Economics and Management*, *31*(2), 145–159. https://doi.org/10.1006/jeem.1996.0037

Sachdeva, S., Jordan, J., & Mazar, N. (2015). Green consumerism: Moral motivations to a sustainable future. *Current Opinion in Psychology*, *6*, 60–65. https://doi.org/10.1016/j.copsyc.2015.03.029

Sajdakowska, M., Gębski, J., Gutkowska, K., & Żakowska-Biemans, S. (2018). Importance of health aspects in Polish consumer choices of dairy products. *Nutrients*, *10*(8), 1007. https://doi.org/10.3390/nu10081007

Sajdakowska, M., Gębski, J., Guzek, D., Gutkowska, K., & Żakowska-Biemans, S. (2020). Dairy products quality from a consumer point of view: Study among Polish adults. *Nutrients*, *12*(5), 1503. https://doi.org/10.3390/nu12051503

Samoggia, A. (2016). Healthy food: Determinants of price knowledge of functional dairy products. *Journal of Food Products Marketing*, *22*(8), 905–929. https://doi.org/10.1080/10454446.2015.1072867

Šedík, P., Horská, E., Predanócyová, K., Grunert, K. G., Hudecová, M., & Nagyová, Ľ. (2025). Consumption trends and perspectives for milk and dairy products in Slovakia. *Journal of International Food & Agribusiness Marketing*, *37*(1), 72–94. https://doi.org/10.1080/08974438.2023.2275560

Šedík, P., Horská, E., Skowron-Grabowska, B., & Illés, C. B. (2018). Generation marketing in strategic marketing management: Case study of honey market. *Polish Journal of Management Studies*, *18*(1), 326–337. https://doi.org/10.17512/pjms.2018.18.1.24

Shan, L. C., De Brún, A., Henchion, M., Li, C., Murrin, C., Wall, P. G., & Monahan, F. J. (2017). Consumer evaluations of processed meat products reformulated to be healthier – A conjoint analysis study. *Meat Science*, *131*, 82–89. https://doi.org/10.1016/j.meatsci.2017.04.239

Sharma, N., Yeasmen, N., Dubé, L., & Orsat, V. (2024). A review on current scenario and key challenges of plant-based functional beverages. *Food Bioscience*, *60*, 104320. https://doi.org/10.1016/j.fbio.2024.104320

Silva, E. G. D S. O., Anaya, K., Bezerra, M. D F., Macêdo, C. S., Urbano, S. A., Borba, L. H. F., Barbosa, I. D M., Ramalho, H. M. M., Cipolat-Gotet, C., Galdino, A. B. D S., Oliveira, J. P. F. D., & Rangel, A. H. D N. (2021). Physicochemical and sensory evaluation of greek style yogurt with bovine colostrum. *Food Science and Technology*, *42*, e22121. https://doi.org/10.1590/fst.22121

Sivieri, K., Freire, F. C., Lopes, N. P., Shiraishi, C. T., Pires, A. C. M., Lima, A. C. D., … Bianchi, F. (2017). Synbiotic yogurts and the elderly. In *Yogurt in health and disease prevention* (pp. 259–271). Academic Press.

Sogari, G., Pucci, T., Caputo, V., & Loo, E. J. (2023). The theory of planned behaviour and healthy diet: Examining the mediating effect of traditional food. *Food Quality and Preference*, *104*, 104709.

Spack, J. A., Board, V. E., Crighton, L. M., Kostka, P. M., & Ivory, J. D. (2012). It's easy being green: The effects of argument and imagery on consumer responses to green product packaging. *Environmental Communication*, *6*(4), 441–458. https://doi.org/10.1080/17524032.2012.706231

Steinhauser, J., & Hamm, U. (2018). Consumer and product-specific characteristics influencing the effect of nutrition, health and risk reduction claims on preferences and purchase behavior–A systematic review. *Appetite*, *127*, 303–323. https://doi.org/10.1016/j.appet.2018.05.012

Šugrová, M., Nagyová, Ľ., Šoporová, M., Tkáč, F., & Svetlíková, V. (2018). Consumer behaviour on the market of dairy products: Case study of slovak seniors. In International scientific days 2018. 1. issue online (2739 s.). Towards productive, sustainable and resilient global agriculture and food systems. Prague: Wolters Kluwer ČR, 544–556. Available at: http://www.slpk.sk/eldo/2018/dl/9788075981806/files/02/s2-2p03.html

Sumi, K., Tagawa, R., Yamazaki, K., Nakayama, K., Ichimura, T., Sanbongi, C., & Nakazato, K. (2023). Nutritional value of yogurt as a protein source: Digestibility/absorbability and effects on skeletal muscle. *Nutrients*, *15*(20), 4366. https://doi.org/10.3390/nu15204366

Sweety, S., Ali, T. S. A., Velekat Santhosh, A., & Harinivenugopal, H. (2025). Effect of whey protein concentrate and little millet flour on the sensory attributes of low-fat Greek yogurt spread. *Archives of Current Research International*, *25*(1), 82–89. https://doi.org/10.9734/acri/2025/v25i11039

Szakály, Z., Kovács, S., Pető, K., Huszka, P., & Kiss, M. (2019). A modified model of the willingness to pay for functional foods. *Appetite*, *138*, 94–101. https://doi.org/10.1016/j.appet.2019.03.020

Temple, N. J. (2022). A rational definition for functional foods: A perspective. *Frontiers in Nutrition*, *9*, 957516. https://doi.org/10.3389/fnut.2022.957516

Van Loo, E. J., Caputo, V., Nayga, R. M., Jr, Meullenet, J. F., & Ricke, S. C. (2011). Consumers' willingness to pay for organic chicken breast: Evidence from choice experiment. *Food Quality and Preference*, *22*(7), 603–613. https://doi.org/10.1016/j.foodqual.2011.02.003

Váryová, I., Poláková, Z., Košovská, I., Ferenczi Vaňová, A., & Krajčírová, R. (2019). Analysis of development of raw cow milk prices in the conditions of the Slovak Republic. *Potravinarstvo Slovak Journal of Food Sciences*, *13*(1), 906–914. https://doi.org/10.5219/1196

Vecchio, R., Van Loo, E. J., & Annunziata, A. (2016). Consumers' willingness to pay for conventional, organic and functional yogurt: Evidence from experimental auctions. *International Journal of Consumer Studies*, *40*(3), 368–378. https://doi.org/10.1111/ijcs.12264

Viana, J. V., Da Cruz, A. G., Zoellner, S. S., Silva, R., & Batista, A. L. (2008). Probiotic foods: Consumer perception and attitudes. *International Journal of Food Science & Technology*, *43*(9), 1577–1580. https://doi.org/10.1111/j.1365-2621.2007.01596.x

Vieira, E. D., Styles, D., Sousa, S., Santos, C., Gil, A. M., Gomes, A. M., & Vasconcelos, M. W. (2022). Nutritional, rheological, sensory characteristics and environmental impact of a yogurt-like dairy drink for children enriched with lupin flour. *International Journal of Gastronomy and Food Science*, *30*, 100617. https://doi.org/10.1016/j.ijgfs.2022.100617

Víquez-Barrantes, D., Lau-Lee, N., Cubero-Castillo, E., & Cordero-García, M. (2023). Comparing consumer acceptance, sensory profile, and chemical properties in artisanal and industrial Greek-style yogurts processing: A path to enhancing food safety. *NFS Journal*, *33*, 100156. https://doi.org/10.1016/j.nfs.2023.100156

Wadhwa, S., McMahon, A., & Neale, E. (2021). A cross-sectional audit of nutrition and health claims on dairy yoghurts in supermarkets of the Illawarra region of New South Wales, Australia. *Nutrients*, *13*(6), 1835. https://doi.org/10.3390/nu13061835

Wang, C., Wang, E., Bai, Y., Lu, Y., & Qi, H. (2023). Encapsulated fucoxanthin improves the structure and functional properties of fermented yogurt during cold storage. *Food Chemistry*, *419*, 136076. https://doi.org/10.1016/j.foodchem.2023.136076

Wang, Q., Zhang, W., Tseng, C. P. M. L., Sun, Y., & Zhang, Y. (2021). Intention in use recyclable express packaging in consumers' behavior: An empirical study. *Resources, Conservation and Recycling*, *164*, 105115. https://doi.org/10.1016/j.resconrec.2020.105115

Ward, J. H.Jr. (1963). Hierarchical grouping to optimize an objective function. *Journal of the American Statistical Association*, *58*(301), 236–244. https://doi.org/10.2307/2282967

Yusuf, I. O., Adediran, O. A., Awodoyin, R. O., Olusola, O. O., & Omojola, A. B. (2024). Physicochemical and organoleptic properties of Greek-type yogurt fortified with or without omega-3 fatty acid and honey. *Tropical Agricultural Research and Extension*, *27*(3), 133–143. https://doi.org/10.4038/tare.v27i3.5698

Zanchini, R., Blanc, S., Pippinato, L., Poratelli, F., Bruzzese, S., & Brun, F. (2022b). Enhancing wood products through ENplus, FSC and PEFC certifications: Which attributes do consumers value the most? *Forest Policy and Economics*, *142*, 102782. https://doi.org/10.1016/j.forpol.2022.102782

Zanchini, R., Di Vita, G., & Brun, F. (2022a). Lifestyle, psychological and socio-demographic drivers in functional food choice: A systematic literature review based on bibliometric and network analysis. *International Journal of Food Sciences and Nutrition*, *73*(6), 709–725. https://doi.org/10.1080/09637486.2022.2048361

Zanchini, R., Di Vita, G., Panzone, L., & Brun, F. (2023). What is the value of a "mountain product" claim? A ranking conjoint experiment on goat's milk yogurt. *Foods (Basel, Switzerland)*, *12*(10), 2059. https://doi.org/10.3390/foods12102059

Zawistowski, J. (2017). Health foods and foods with health claims in the Asian subcontinent: Countries of the Association of Southeast Asian Nations. *Developing New Functional Food and Nutraceutical Products* (pp. 323–367).

Appendix. Descriptive statistics of the exploratory items included in the survey

Categories	Type	Mean	Sd
Weight maintenance	Lifestyle	3.34	1.31
Disease prevention	Lifestyle	3.18	1.26
Low fat content	Claims	3.15	1.49
Low sugar content	Claims	3.01	1.43
High protein	Claims	2.90	1.50
Natural	Claims	2.75	1.66
Nutri-Score	Extrinsic cue	2.27	1.48