

# Conscious food choices - differences between perceived benefits and willingness to pay for different product types

---

First Komen, Ivana; Grgurić Čop, Nina; Puškarić, Antonija

Source / Izvornik: **Ekonomski vjesnik : Review of Contemporary Entrepreneurship, Business, and Economic Issues, 2021, 34, 371 - 384**

Journal article, Published version

Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

<https://doi.org/10.51680/ev.34.2.10>

Permanent link / Trajna poveznica: <https://urn.nsk.hr/urn:nbn:hr:192:968255>

Rights / Prava: [In copyright](#) / [Zaštićeno autorskim pravom](#).

Download date / Datum preuzimanja: **2024-12-27**



SVEUČILIŠTE U RIJECI  
**EKONOMSKI FAKULTET**

Repository / Repozitorij:

[Repository of the University of Rijeka, Faculty of Economics and Business - FECRI Repository](#)



**Ivana First Komen**  
University of Rijeka  
Faculty of Economics and Business  
51000 Rijeka, Croatia  
ivana.first.komen@efri.hr

**Antonija Puškarić**  
U.O. Zeleni kut  
47250 Duga Resa, Croatia  
info@zeleni-kut.com

JEL: M31  
**Original scientific paper**  
<https://doi.org/10.51680/ev.34.2.10>

Received: May 3, 2021  
Revision received: July 14, 2021  
Accepted for publishing: July 14, 2021

**Nina Grgurić Čop**  
University of Rijeka  
Faculty of Economics and Business  
51000 Rijeka, Croatia  
nina.grguric.cop@efri.hr

This work is licensed under a  
Creative Commons Attribution-  
NonCommercial-NoDerivatives 4.0  
International License



# CONSCIOUS FOOD CHOICES – DIFFERENCES BETWEEN PERCEIVED BENEFITS AND WILLINGNESS TO PAY FOR DIFFERENT PRODUCT TYPES

## ABSTRACT

**Purpose:** Consumers increasingly make conscious choices when it comes to food and choose healthy products that protect the natural environment and preserve traditional habits and communities. This study investigates the differences between perceived benefits and willingness to pay for products making different marketing claims yet all suggesting producers' dedication to protect the health of consumers as well as natural and traditional resources.

**Methodology:** First, focus groups were conducted to identify food marketing claims (i.e., product types) that are relevant to consumers and empirically validate the relevance of the perceived benefits identified in previous research. Second, questionnaires were distributed to consumers to analyse the differences in perceived benefits and willingness to pay between the identified product types.

**Results:** The focus groups revealed that apart from natural and traditional products, handmade, homemade, and autochthonous products represent important marketing claims. They also proved that most benefits identified in literature resonate well with consumers of the studied cultural context. Results of the questionnaire show that emotional benefits are not perceived differently for different product types, functional benefits are perceived higher for natural and handmade products than for traditional ones, while convenience is perceived as higher only for handmade products. Willingness to pay is not different for different product types nor benefits.

**Conclusion:** Since some product types are perceived as providing more benefits than others, small food producers should focus on marketing their products as handmade and natural, rather than traditional. Furthermore, marketing efforts should be directed towards identifying the right consumer segments as those inclined to the protection of traditional resources perceive higher benefits regardless of the product type.

**Keywords:** Traditional, natural, handmade, homemade, autochthonous, perceived benefits

## 1. Introduction

According to Angus and Westbrook (2020), major consumer trends boil down to consumers returning to their roots, doing everything from the comfort of their home, caring for their well-being and buying local, personalized, non-polluting products. Reacting to those trends, many marketers promote their food products in vague terms such as fresh, local, natural, artisan, and sustainable (Del Gigante, 2013). When faced with such marketing claims, especially when combined, consumers often envision an idyllic image of a small family farm which produces healthy products, while protecting natural and traditional resources. Because marketing claims that underline health, environmental and ethical concerns are appealing to modern consumers (Ghvanidze et al., 2019), yet most of them are very vague and legally not well regulated (Wenzig & Gruchmann, 2018; Berry et al., 2017), they require more attention by researchers and policymakers.

In the focus of this research are two of those under-defined claims: *traditional* and *natural*. Globally, their relevance is evidenced in the big and growing market shares (Cao & Yan 2016; Savelli et al., 2019), and locally in the smart specialization guidelines of the Croatian Primorsko-goranska county (cf. Prigoda, 2020) according to which the protection of natural and traditional resources represents one of the priorities that need higher practitioners' and academic attention. Also, these two claims differ enough from one another yet in a parsimonious way represent umbrella claims for many similar ones.

Previous research explored what natural (Petty, 2015; Rozin, 2005) and traditional (e.g., Guerrero et al., 2009; Cerjak et al., 2014) products represent and what benefits consumers get when purchasing natural (Umberger et al., 2009; Berry et al., 2017) or traditional products (Barska & Wojciechowska-Solis, 2018; Vanhonacker et al., 2010; Wang et al., 2016). However, comparing these two types of products, or similar vaguely defined types of products that consumers consider good alternatives to natural and traditional products, captured only scarce attention of researchers so far.

The objective of this paper is, thus, to explore the benefits that consumers perceived to be specific for widely used yet underdefined marketing claims related to natural and traditional production and how those benefits reflect in consumer willingness to pay (henceforth: WTP). Our findings are particularly important for small food producers as their production usually complies with the protec-

tion of natural and traditional resources, yet lack of resources limits their branding efforts (Renton et al., 2016). Our findings will help them understand which claims are preferred by consumers so they can stand a chance against incomparably more resourceful competitors.

## 2. Previous research

This study is exploratory in nature, so the main purpose of the literature review was to explore the most studied perceived benefits related to natural and traditional food products and how they relate to WTP. We searched for articles published in journals indexed in WoS SSCI and SCI to ensure they have undergone a rigorous review process. Further, to include only contemporary, research-based research without a language barrier, we narrowed our search down to articles in English published between 2000-2020.

### 2.1 Natural products, their benefits and WTP

Marketing research (e.g., McFadden & Huffman, 2017; Berry et al., 2017; Syrengelas et al., 2018) most often defines natural products according to the USDA (2005) definition which focuses on the two defining characteristics: no artificial flavour, colouring ingredient, chemical preservative, or any other artificial or synthetic ingredient; and the minimal processing of the product and its ingredients. Similarly, the most relevant research on the consumer perception of the meaning of natural products conducted by Rozin et al. (2012) found consumers across Europe and the US agree that the natural claim refers to the absence of "negative" features (e.g., additives, human intervention), rather than the presence of positive ones.

When it comes to perceived consumer benefits, prior research found that natural products are perceived as providing many benefits. Umberger et al. (2009) differentiate between personal benefits, social health concerns and societal benefits. According to them, personal benefits include nutrition, quality and safety. Likewise, social health concerns include potential antibiotic resistance and unknown hormonal effects, which is related to the healthy benefit discovered by Rozin et al. (2012) and Berry et al. (2017). Finally, under societal benefits, Umberger et al. (2009) include support for local agriculture and environmental benefits. Rozin et al. (2012) also found benefits like tasty to be related to natural products.

Prior research often also investigated WTP for natural products. Researchers were most interested in how WTP changes when consumers receive various information on what natural stands for (Gifford & Bernard, 2011; McFadden & Huffman, 2017) and which behavioural and psychographic consumer profiles are linked to WTP (Migliore et al., 2020). In the context of this study, the results by Umberger et al. (2009) are particularly interesting. They studied the relationship between benefits and WTP and found that personal benefits, social health concerns and societal benefits that consumers relate to natural products all contribute to WTP, the influence being the strongest for social health concerns.

## 2.2 Traditional products, their benefits and WTP

According to previous research (e.g., Balogh et al., 2016; Pieniak et al., 2009; Kühne et al., 2015), the most important regulation which defines traditional products is Regulation (EU) 1151/2012 (and its earlier version, Council Regulation (EC) 509/2006) on quality schemes for agricultural products and foodstuffs. It says that “traditional’ means proven usage on the domestic market for a period that allows transmission between generations; this period is to be at least 30 years“. Trichopoulou et al. (2007) made an important contribution by elaborating on the definition of traditional in the Regulation. According to them “traditional means conforming to established practice or specifications prior to the Second World War“. Furthermore, they define traditional food as distinguished from similar products in terms of the use of traditional ingredients, traditional composition, or traditional type of production and/or processing method which are characterised by being used prior to WWII in identifiable geographical areas and remain in use today. Marketing researchers also investigated how consumers perceive traditional products. The most important contribution in that regard was provided by Guerrero et al. (2009), who view traditional products as those frequently consumed or associated with certain celebrations or seasons, transmitted through generations, made specifically according to the gastronomic heritage, with minimal processing, distinguished because of their sensory properties, and associated with a certain location.

Furthermore, the research investigated which benefits consumers relate to traditional products. Wang et al. (2016) divided such benefits into several groups including sensory appeal (taste, smell, and appearance of food), health, symbolic meaning (memories, childhood, family, and nostalgia), and safety. Sensory

appeal (particularly taste) and health are benefits that are frequently identified when it comes to traditional products (e.g., Barska & Wojciechowska-Solis, 2018; Cerjak et al., 2014; Renko & Bucar, 2014). The elements of symbolic meaning, in particular childhood memories and specific emotions, are also found to be associated with traditional food by many such as Cerjak et al. (2014); Serrano-Cruz et al. (2018), and Guerrero et al. (2012). Similarly, consumption of traditional food also carries a symbolic meaning related to certain attitudes like the importance of supporting neighbourhood, not purchasing foreign food and the like (Vanhonacker et al., 2010). Perhaps the most comprehensive list of benefits is given by Cerjak et al. (2014), who, besides most of the mentioned benefits, also discovered self-interest benefits such as high energy level, pleasure and enjoyment, and altruistic benefits such as support for rural families and communities, animal welfare and environmental protection.

Previous research also investigated how traditional food consumption related to some other food consumption benefits such as weight control (Pieniak et al., 2009; Vanhonacker et al., 2010), ease and speed of cooking and consumption (Pieniak et al., 2009; Wang et al., 2016; Vanhonacker et al., 2010), economic convenience (Vanhonacker et al., 2010; Pieniak et al., 2009; Savelli et al., 2009) but mostly found that these benefits are not specific for traditional products, but rather for the conventional ones.

Finally, researchers explored WTP in the context of traditional products. Ballco and Gracia (2020) discovered that traditional products that carry a Protected designation of origin quality label and those locally or regionally produced display the highest WTP. Similarly, Balogh et al. (2016) found quality label, retail outlet, price, and type of ingredients to be significant predictors of WTP for traditional products.

## 3. Methodology

### 3.1 Procedure

Given the exploratory nature of our study, we first conducted consumers focus groups aiming to:

- assess whether benefits relevant in previous research also resonate with Croatian consumers and,
- identify food marketing claims (i.e., product types) other than natural and traditional that trigger consumer attention when it comes

to food produced by small farm producers devoted to the protection of natural and traditional resources.

Four focus groups were conducted, each comprising three to seven participants; 20 overall. Demographics was dispersed in terms of gender and age, although in favour of female (14 vs. 6) and younger (mean age = 33) participants. In terms of education, we have purposely chosen those with higher education (7 students of the master studies, 6 master graduates and 7 PhD graduates) as they are more

likely to make conscious food choices (Ghvanidze et al., 2019).

Table 1 shows that most of the benefits identified in the literature were considered as relevant in the focus groups. On the other hand, the focus groups also discovered a benefit not found in literature: *enable the consumer to create a relationship with the manufacturer*. Inspired by the classification of benefits by Umberger et al. (2009) for natural and Pieniak et al. (2009) and Savelli et al. (2019) for traditional products, we have classified the benefits into two main categories: self-interest and altruistic benefits.

**Table 1** List of studied perceived benefits

Benefit	Type	Prior research		Focus groups
		Natural	Traditional	
Give the consumer a lot of energy <sup>1</sup>	Self-interest		X	X
Healthy	Self-interest	X	X	X
Nutritious	Self-interest	X	X	
Help the consumer control the weight <sup>2</sup>	Self-interest		X	
Safe for the consumer	Self-interest	X	X	X
Evoke positive emotions in customers	Self-interest		X	X
Remind the consumer of childhood	Self-interest		X	X
Tasty	Self-interest	X	X	X
Provide pleasure to consumers <sup>1</sup>	Self-interest		X	X
Enable the consumer to create a relationship with the manufacturer	Self-interest			X
Enable the consumer to identify as a person of certain attitudes	Self-interest		X	
Provide financial savings for the consumer <sup>2</sup>	Self-interest		X	
Provide time and energy savings for the consumer <sup>2</sup>	Self-interest		X	
Help sustain rural families and communities	Altruistic	X	X	X
Contribute to the public health improvement (no effect of animal antibiotics and hormones on humans) <sup>1</sup>	Altruistic	X		
Contribute to animal welfare	Altruistic	X	X	
Do not harm the environment	Altruistic	X	X	X

<sup>1</sup> adjusted during pre-testing

<sup>2</sup> explored in previous research, but not found to be specific for traditional products

Source: Authors

As for the second purpose of the focus groups, we have identified that, apart from traditional and natural claims, participants especially appreciate: organic/eco-labels, handmade and homemade claims and products originating from a specific region (e.g., Neretva mandarins, Istrian prosciutto or Slavonian

kulen). Since in the focus of our interest were unregulated claims and not official, by a regulation defined labels, we have not included organic/eco-labels in further research. Furthermore, although there is ample research on local foods, we did not find this claim to be of interest for the focus group participants.

However, for products originating from a specific region, we pondered whether to define them as local products, but concluded it would not be appropriate since the Neretva and Slavonia regions that were often mentioned by the focus groups participants are the furthestmost regions of Croatia from the Kvarner region in which the focus groups were conducted. On the other hand, according to the Oxford learner's dictionary (2021) the word autochthonous means "of people who live in a particular place" or "formed in its present position", so this claim was considered to appropriately capture the intended meaning of products like Slavonian kulen and was thus included in further analysis.

To further ensure that traditional, natural, handmade, homemade, and autochthonous represent the five most relevant food marketing claims, we have screened webpages of a dozen of the famous Croatian brands within the product categories identified as those preserving natural and traditional resources during the focus groups. We have found that traditional and natural are very commonly used claims, especially traditional, but autochthonous and handmade are quite present as well. Homemade is less often applied, but more often than e.g., local. Hence, we proceeded with the five above-mentioned marketing claims (henceforth: product types).

Before conducting the main quantitative research, the initial questionnaire underwent expert evaluation and a pilot study. The purpose of the expert evaluation was to examine the clarity of the questionnaire and define how to set up the initial stimulus and generally structure the questionnaire to minimize the framing influence on the respondents. Five methodology and marketing experts were consulted at this stage. Based on their input, we slightly changed some questions for more clarity. We also decide that the best initial stimulus in the survey would be asking respondents to imagine a situation in which "*they invited gourmand friends over for dinner and since they were aware the friends loved anything that is X (to be replaced by one of the identified product types), they did their best to serve X products.*" The questionnaire would proceed with two open-ended questions (*which products would they serve their friends and where would they get those products*). Such an introduction enables respondents who are not regular users of X product to relate to the situation. It also removes the effect of scepticism towards the marketing claims that could bother some respondents have

we shown an image of a product labelled as X product type. Finally, it makes respondents think exactly of a type of product that X product type represents for them. The questionnaire would then proceed to investigate consumer perception of the studied product types with special emphasis on perceived benefits and willingness to pay. The questionnaire would end with several consumer profiling questions, i.e., control variables.

After the expert evaluation, we have prepared five questionnaires (one for each product type) and conducted a pilot study by distributing each of the questionnaires to 1-3 consumers (face to face or by phone) aiming to test whether all the questions were clear. During filling in of the questionnaire, we allowed the respondents to comment on anything they found unclear. Based on the pilot study, several items were adjusted and refined as Table 1 shows. After the fine-tuning based on the pilot research, we have back-translated all the scales to English and in that stage found no problems.

Finally, in the main study, the final five questionnaires were uploaded online. They were distributed to senior business students (3<sup>rd</sup> year undergraduate studies and master studies) of the University of Rijeka. Senior students are easily accessible and, unlike junior students, expected to have started making conscious food choices. Each respondent filled out only one questionnaire. The questionnaires were mostly distributed to students during an online class, while the minority of the students received an e-mail with an invitation to fill it in.

### 3.2 Concept measurements

The main concepts in our study were product type, benefits and WTP. As we described, product type was an initial stimulus. When it comes to benefits, since this was an exploratory study, we did not have a priori defined dimensions of the concept but a list of 17 benefits originating from literature review and focus groups as previously described and shown in Table 1. Respondents had to evaluate each benefit on a 7-point Likert scale. WTP was measured by a simple open-ended question: *how higher a price (in %) were they willing to pay for X products than for the conventional ones.*

Finally, we included a set of profiling questions that represented control variables. Apart from the standard demographic variables (age, gender, and household income), we also included a behavioural

variable (consumption intensity) and two psychographic variables (importance of preservation of natural resources and importance of preservation of traditional resources). Age and gender were measured by open questions, while to measure household income we asked the respondents to choose from 5 options. Consumption intensity was measured with a single item 7-point scale previously used in Vanhonacker et al. (2013) and Pieniak et al. (2013). This scale asks respondents to choose an option ranging from “not at all a consumer of X products” to “very much a consumer of X products”. The importance of preservation of natural resources and the importance of preservation of traditional resources were measured on a scale developed by Dibrell and Craig (2006) and reused on natural environment attitudes by Dibrell, Craig and Hansen (2011). We used it in its original form to measure the importance of preservation of natural resources and in an adjusted form so that the word “natural” was replaced by the word “traditional” in all the items to measure the importance of preservation of traditional resources. Items are presented in Tables 5 and 6.

#### 4. Results

##### 4.1 Descriptive statistic

In total 169 respondents completed an online survey in April 2021. For each product type we collected more than 30 responses. Two respondents were excluded due to missing data in WTP, and one was detected as an outlier using a box plot diagram for WTP. All the respondents declared themselves as users of the studied product types, so no one was excluded for that reason. As Tables 2 and 3 show, the product type based subsamples are homogeneous according to their gender ( $\chi^2 = 6.12$ ;  $df = 8$ ;  $p = 0.634$ ), income ( $\chi^2 = 17.83$ ;  $df = 16$ ;  $p = 0.334$ ), consumption intensity ( $F_{4,161} = 1.47$ ;  $p = 0.213$ ), importance of traditional resources ( $F_{4,161} = 0.42$ ;  $p = 0.794$ ), and importance of natural resource ( $F_{4,161} = 0.26$ ;  $p = 0.902$ ). Respondents in autochthonous subsample are significantly older than those in handmade, homemade, and natural subsamples ( $F_{4,161} = 4.259$ ;  $p < 0.05$ ), but across subsamples respondents are in their twenties, hence the difference is not expected to influence the results.

Table 2 Descriptive statistics across product types

Product type	N	Age	Gender	Consumption intensity	Importance of pres. of natural res.	Importance of pres. of traditional res.
Autochthonous	40	M = 29; sd = 8.0	73% F	M = 5.25; sd = 0.8	M = 6.32; sd = 1.01	M = 5.76; sd = 1.21
Homemade	31	M = 25; sd = 6.5	74% F	M = 5.61; sd = 0.8	M = 6.14; sd = 1.13	M = 5.44; sd = 1.33
Natural	33	M = 24; sd = 4.2	76% F	M = 5.12; sd = 1.1	M = 6.16; sd = 0.98	M = 5.47; sd = 1.42
Handmade	30	M = 24; sd = 2.7	83% F	M = 5.23; sd = 0.8	M = 6.07; sd = 1.22	M = 5.38; sd = 1.60
Traditional	32	M = 27; sd = 8.5	81% F	M = 5.03; sd = 1.4	M = 6.16; sd = 1.03	M = 5.55; sd = 1.29

Source: Authors

Table 3 Household income per month across product types (% per category)

Product type	N	Up to 3.000 HRK	3.001 to 6.000 HRK	6.001 to 12.000 HRK	12.001 to 18.000 HRK	More than 18.000 HRK
Autochthonous	40	3 %	10 %	30 %	38 %	20 %
Homemade	31	10 %	6 %	35 %	32 %	16 %
Natural	33	9 %	12 %	42 %	27 %	9 %
Handmade	30	17 %	13 %	43 %	20 %	7 %
Traditional	32	3 %	19 %	50 %	13 %	16 %

Source: Authors

##### 4.2 Data reduction

To examine the central concept of the study (perceived benefits), we have conducted exploratory

factor analysis (EFA) as it serves to understand and clarify new scales (Hair et al., 2019). Principal Axis Factoring (PAF) was used because the goal of this

analysis was to find an underlying structure of a concept and identify the structure of items (Costello & Osborne, 2005). Direct oblimin rotation was used since factors are conceptually expected to be moderately correlated. The solution with 3 factors (number of factors suggested according to the criteria Eigenvalue higher than 1) explained 59.75% of the variance and communalities for the 17 items were generally good (four were just slightly under 0.4, while others were above). Furthermore, the so-

lution created three content-wise logical factors: Functional benefits, Emotional benefits and Convenience as shown in Table 4. Thus, this solution was retained. Two items cross-loaded on the first two factors but were kept in the first one due to the content fit and higher factor loadings, while an item that cross-loaded on the first and the third factor was included to the third based on its content fit although it loaded better onto the first factor.

**Table 4** Factor solution for the perceived benefits construct

	Functional benefits	Emotional benefits	Convenience
Healthy	<b>0.86</b>		
Help the consumer control the weight	<b>0.77</b>		
Do not harm the environment	<b>0.74</b>		
Contribute to the public health improvement (no effect of animal antibiotics and hormones on humans)	<b>0.66</b>		
Safe for the consumer	<b>0.61</b>	-0.36	
Give the consumer a lot of energy	<b>0.50</b>		
Contribute to animal welfare	<b>0.43</b>		
Nutritious	<b>0.43</b>	-0.38	
Provide pleasure to consumers		<b>-0.85</b>	
Tasty		<b>-0.83</b>	
Evoke positive emotions in customers		<b>-0.68</b>	
Enable the consumer to create a relationship with the manufacturer		<b>-0.64</b>	
Help sustain rural families and communities		<b>-0.62</b>	
Remind the consumer of childhood		<b>-0.60</b>	
Enable the consumer to identify as a person of certain attitudes			<b>0.40</b>
Provide time and energy savings for the consumer			<b>0.40</b>
Provide financial savings for the consumer	0.44		<b>0.31</b>
Cronbach's alpha	0.86	0.85	0.64
KMO	0.89		
Bartlett's test of sphericity	<0.001		

Source: Authors

Cronbach's alphas of the items belonging to the three factors were higher than 0.6, which indicates satisfying internal consistency of data (cf. Peterson, 1994). No indication for improvement of Cronbach's alpha when omitting an item was found.

Repeating a similar procedure, factor analysis was conducted for items measuring the importance of the preservation of natural resources. Factor analysis (PAF with oblimin rotation) suggested two factors explaining 74% of variance as Table 5 shows. One of these factors represented the importance of



natural resources, while the other relative importance as compared to the importance of other business goals. We decided not to keep the second factor because we were interested in the importance and not relative importance. Furthermore, the lat-

ter only contained two items with Cronbach's alpha of 0.4. Factor analysis was re-run with the three items and one factor was extracted (Table 5) with no communalities below 0.4 and high factor loadings. Cronbach alpha was high at 0.84.

**Table 5** Factor solution for construct importance of preservation of natural products

	Factor solution 1		Factor solution 2
	Importance	Relative importance	Importance
In the future, the protection of natural resources should be seen as part of business success.	0.87		0.86
Businesses need to invest more resources in the protection of natural resources.	0.79		0.79
Business leaders should be first in line in protecting natural resources.	0.77		0.77
Businesses should not be committed to protecting natural resources because this would jeopardize their profitability.		0.58	
We must protect natural resources at the cost of losing jobs in our community.	0.32	0.56	
Cronbach's alpha	0.84	0.4	0.84
KMO	0.72		0.73
Bartlett's test of sphericity	<0.001		<0.001

Source: Authors

For measuring the importance of traditional products, the same procedure was repeated, and the results were almost identical as with importance

of natural products. We also decided to keep the three-item single factor solution. Items of the two analyses are shown in Table 6.

**Table 6** Factor solution for construct importance of preservation of traditional products

	Factor solution 1		Factor solution 2
	Importance	Relative importance	Importance
Businesses need to invest more resources in the protection of traditional resources.	0.88		0.92
Business leaders should be first in line in protecting traditional resources.	0.83		0.78
In the future, the protection of traditional resources should be seen as part of business success.	0.81		0.82
Businesses should not be committed to protecting traditional resources because this would jeopardize their profitability.		0.61	
We must protect traditional resources at the cost of losing jobs in our community.	0.37	0.51	
Cronbach's alpha	0.88	0.37	0.88
KMO	0.71		0.73
Bartlett's test of sphericity	<0.001		<0.001

Source: Authors

For further analysis, the latent construct for each extracted factor was computed as a mean of the corresponding items.

### 4.3 Hypotheses testing

After defining latent constructs, outliers were detected using z-scores for each of the variables (functional benefits, emotional benefits, convenience, importance of preservation of natural products, importance of preservation of traditional products, age, gender, household income, and consumption intensity). Outliers are usually considered responses with z-scores higher than +/-3. Based on this criteria, in total 12 responses were eliminated, leaving 154 responses in the sample for further analysis.

The one-way ANOVA with Bonferroni post-hoc test was run on the 4 dependent variables, i.e., func-

tional benefits, emotional benefits, convenience and WTP (Table 7). There is no significant difference in mean WTP, emotional benefits and convenience between product types. The only difference was found in functional benefits so that they were perceived as the least beneficial and significantly lower for traditional products than for natural ones ( $p = 0.034$ , means bolded in Table 7). This was a signal that in the multiple regression models that we shall conduct, traditional products can be used as a reference group and all other product types assessed relative to them. That is, 4 dummy variables were created (for each product type other than traditional) so that their coefficients in the regression would indicate the difference of each from the traditional product.

**Table 7** Difference between means in dependent variables according to product types

Product type	WTP (M; sd)	Functional benefits (M; sd)	Emotional benefits (M; sd)	Convenience (M; sd)
Autochthonous	37.76; 28.88	5.24; 0.99	6.21; 0.67	4.61; 1.26
Homemade	30.30; 28.97	5.28; 1.11	6.13; 0.84	4.43; 1.31
Handmade	33.11; 27.11	5.53; 0.96	6.23; 0.63	4.85; 1.22
Natural	29.43; 20.26	<b>5.81; 0.81</b>	6.02; 0.72	4.70; 1.04
Traditional	41.02; 28.76	<b>5.05; 0.89</b>	6.12; 0.80	4.26; 1.05

Source: Authors

Our main model thus consisted of four independent variables (product types), three mediating variables (perceived benefits) and a dependent variable (WTP). We first conducted a regression analysis to examine the effect of all independent and mediating variables on WTP. In the regression, we also included six control variables (household income, gender, age, consumption intensity, importance of preservation of natural resources, and importance of preservation of traditional resources). The model was not significant ( $F_{13,140} = 1.713$ ;  $p = 0.064$ ). Therefore, we did not proceed to test the mediation effect but focused on investigating whether perceived benefits are influenced by the product type. We conducted three additional regressions, each with one type of benefits as a dependent variable, four independent variables and six control variables.

All three models were significant as Table 8 shows. The model with the highest  $R^2$  (0.31) was the one for emotional benefits, however, in that model, the var-

iance in the dependent variable is entirely explained by control variables. Higher consumption intensity and higher perceived importance of preservation of traditional resources lead to higher emotional benefits. The model for functional benefits, although explaining less variance in the dependent variable overall ( $R^2 = 0.22$ ) is more interesting as it shows the effect of the observed independent variables. That is, natural ( $\beta = 0.30$ ;  $p = 0.00$ ) and handmade ( $\beta = 0.18$ ;  $p = 0.06$ ) products are perceived as providing higher functional benefits than traditional products. Of the control variables, only the consumption intensity was significant. The last model, the one for convenience, explained 16% of the variance in the dependent variable with handmade products ( $\beta = 0.20$ ;  $p = 0.05$ ) being a significant predictor of perceived convenience. Of the control variables, only the consumption intensity and importance of preservation of traditional resources were significant.

**Table 8 Regressions analyses results**

	Functional benefits		Emotional benefits		Convenience	
	F <sub>10,143</sub> = 4.032; p < 0.001		F <sub>10,143</sub> = 6.354; p < 0.001		F <sub>10,143</sub> = 2.618; p = 0.006	
	R <sup>2</sup> = 0.22		R <sup>2</sup> = 0.31		R <sup>2</sup> = 0.16	
Independent	beta	p	beta	p	beta	p
Household income	-0.07	0.36	-0.09	0.25	-0.07	0.41
Gender	0.04	0.59	0.10	0.17	0.04	0.66
Age	0.06	0.48	0.13	0.09	0.05	0.58
Consumption intensity	<b>0.17</b>	<b>0.03</b>	<b>0.20</b>	<b>0.01</b>	<b>0.25</b>	<b>0.00</b>
Importance of pres. of natural resources	0.15	0.12	0.14	0.13	-0.13	0.22
Importance of pres. of traditional resources	0.16	0.10	<b>0.30</b>	<b>0.00</b>	<b>0.25</b>	<b>0.02</b>
Autochthonous	0.05	0.64	-0.01	0.91	0.12	0.25
Homemade	0.09	0.38	0.01	0.96	0.04	0.67
Handmade	<b>0.18</b>	<b>0.06</b>	0.06	0.52	<b>0.20</b>	<b>0.05</b>
Natural	<b>0.30</b>	<b>0.00</b>	-0.06	0.49	0.14	0.16

Source: Authors

### 5. Discussion and conclusion

Perceived benefits of natural or traditional products are generally conceptually divided into two main groups: self-interest benefits and altruistic benefits (cf. Pieniak et al., 2009; Umberger et al., 2009). Conversely, our findings revealed that consumers perceive three major types of benefits (emotional, functional and convenience), two of which combine self-interest and altruistic benefits. This is an important paradigm switch and the first contribution of our research. That is, consumers do not differentiate between self-interest and altruistic motives. We reckon this is because the corporate and general social responsibility idea has to date become so incorporated in public discourse, that it represents a mainstream consumer opinion and a lifestyle driving value (cf. Angus & Westbrook, 2020). Because general research on consumer perceived values (e.g., Franzen & Bouwman, 2001) classifies types of values into several categories including emotional and functional ones; we suggest future research on conscious food choices should apply the same benefits conceptualisation rather than focusing on self-interest vs. altruistic benefits.

Our results also show that all the studied types of products are clearly perceived as providing very high emotional benefits to consumers. On the other hand, although all product types provide pretty high functional benefits and convenience, the former is perceived higher for handmade and natural products than for traditional products while the latter is perceived higher for handmade than for traditional products. We started prior research analysis by thoroughly screening research on natural and traditional products and not only did we find ample research on these two types of products, but we also found that the research shows that natural (e.g., Rozin et al., 2012; Berry et al., 2017) and traditional (e.g., Barska & Wojciechowska-Solis, 2018; Vanhonacker et al., 2010; Cerjak et al., 2014; Renko & Bucar, 2014) products provide benefits to consumers. Our subsequent research on the handmade, homemade, and autochthonous products revealed that within the same research parameters (WOS, SSCI and SCI, article, English and 2000-2020) we could find only a few papers. The revelation of the importance of handmade products for consumers is thus the second contribution of our research. Consequently, we recommend that small produc-

ers devoted to the preservation of natural and traditional resources focus their marketing activities to produce handmade and natural products and clearly communicate these product attributes to consumers. Further, because of the lack of research on handmade products, due to their appeal for the consumers, researchers should focus more attention on this product type.

Furthermore, our results have shown that consumer profile, i.e., the importance of preservation of traditional resources determines two types of benefits, while the importance of preservation of natural resources does not determine benefits. Previously, more attention was given to the latter (e.g., Migliore et al., 2020) in determining consumer behaviour towards natural products. Our results suggest more attention should be given to the former. Also, since attitudes related to the preservation of traditional resources are important in determining perceived benefits, marketers should put significant efforts into selecting and approaching the right consumer segments rather than only choosing which product type to focus on.

Finally, our findings are surprising in that there is no relationship found between neither product type nor perceived benefits with WTP. This is not in line with previous research. For example, Umberger et al. (2009) found that self-interest and altruistic perceived benefits contribute to WTP when it comes to natural products, while Savelli et al. (2019) suggest that traditional products, when managed as experiences, could increase WTP. Our results might have been insignificant because we measured WTP as open-ended, self-reported estimates, while previous research used elicitation techniques such as discrete choice experiment (e.g., Balogh et al., 2016; Syrengelas et al., 2018), or contingent valuation elicitation method (e.g., Umberger et al., 2009; Migliore et al., 2020), hence, further research is needed in that regard.

## **6. Limitations and future research**

Our research was conducted among students. We included only the senior students as they already make conscious food choices, but future research should include various demographics. Also, we had at least 30 respondents evaluate each product type, which is considered a minimum for group comparisons, but a bigger sample could improve the results. When it comes to the questionnaire, we have identified the word “domaći”, that we translate as homemade in the paper because of the context it was mentioned in during the focus groups. However, when the questionnaire was distributed to the respondents in the Croatian language, they might have understood “domaći” as “domestic (Croatian)” because in Croatian “domaći” has both meanings. Future research should be careful about this as well. Finally, besides more commonly used functional and emotional dimensions of the benefits, our analysis also yielded the third dimension, convenience. Although its Cronbach alpha was above the critical value, it was at the lower limit and only three items loaded on it, including the one that cross-loaded. Future research should give more attention to validating this dimension and examining its role in the context of conscious food choices.

Finally, apart from overcoming the limitations of the current research, it would be interesting to explore how the studied five product types are understood by the consumers, what are their points of parity and points of difference as observed by the consumers and whether different purchasing outlets play a difference in that sense.

## **Acknowledgments**

This work has been fully supported by the University of Rijeka under the project number unirdrustv-18-163.

## REFERENCES

1. Angus, A. & Westbrook, G. (2020). *Top 10 Global Consumer Trends in 2020*. Euromonitor International. <https://go.euromonitor.com/rs/805-KOK-719/images/wpGCT2020-v0.5.pdf>
2. Ballco, P. & Gracia, A. (2020). Do market prices correspond with consumer demands? Combining market valuation and consumer utility for extra virgin olive oil quality attributes in a traditional producing country, *Journal of Retailing and Consumer Services*, 53 (March), 101999. <https://doi.org/10.1016/j.jretconser.2019.101999>
3. Balogh, P., Békési, D., Gorton, M., Popp, J. & Lengyel, P. (2016). Consumer willingness to pay for traditional food products. *Food Policy*, 61, 176-184. <https://doi.org/10.1016/j.foodpol.2016.03.005>
4. Barska, A. & Wojciechowska-Solis, J. (2018). Traditional and regional food as seen by consumers—research results: the case of Poland. *British Food Journal*, 120(9), 1994-2004. <https://doi.org/10.1108/BFJ-01-2018-0054>
5. Berry, C., Burton, S. & Howlett, E. (2017). It's only natural: the mediating impact of consumers' attribute inferences on the relationships between product claims, perceived product healthfulness, and purchase intentions. *Journal of the Academy of Marketing Science*, 45(5), 698-719. <https://doi.org/10.1007/s11747-016-0511-8>
6. Cao, Z. & Yan, R. (2016). Health creates wealth? The use of nutrition claims and firm performance. *Journal of Public Policy & Marketing*, 35(1), 58-75. <https://doi.org/10.1509/jppm.14.142>
7. Cerjak, M., Haas, R., Brunner, F. & Tomić, M. (2014). What motivates consumers to buy traditional food products? Evidence from Croatia and Austria using word association and laddering interviews. *British Food Journal*, 116(11), 1726-1747. <https://doi.org/10.1108/BFJ-02-2014-0090>
8. Costello, A. B. & Osborne, J. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, and Evaluation*, 10(1), 1-9.
9. Del Gigante, M. (2013). *The Last Word on 5 Food Marketing Buzzwords*. [mdgadvertising.com](http://mdgadvertising.com). <https://www.mdgadvertising.com/marketing-insights/the-last-word-on-5-food-marketing-buzzwords/>
10. Dibrell, C. & Craig (2006). The Natural Environment, Innovation, and Firm Performance: A Comparative Study. *Family Business Review*, 19(4), 275-288. <https://doi.org/10.1111/j.1741-6248.2006.00075.x>
11. Dibrell, C., Craig, J. B. & Hansen, E. N. (2011). How managerial attitudes toward the natural environment affect market orientation and innovation. *Journal of Business Research*, 64(4), 401-407. <https://doi.org/10.1016/j.jbusres.2010.09.013>
12. Franzen, G. & Bouwman, M. (2001). *The Mental World of Brands: Mind, memory and brand success*. World Advertising Research Center.
13. Gifford, K. & Bernard, J. C. (2011). The effect of information on consumers' willingness to pay for natural and organic chicken. *International Journal of Consumer Studies*, 35(3), 282-289. <https://doi.org/10.1111/j.1470-6431.2010.00929.x>
14. Ghvanidze, S., Velikova, N., Dodd, T. H. & Oldewage-Theron, W. (2019). Are Sustainable Consumers Health Conscious? A Segmentation Study of Wine Consumers, *Journal of Food Products*, 25(6), pp. 690-711. <https://doi.org/10.1080/10454446.2019.1640160>
15. Guerrero, L., Claret, A., Verbeke, W., Vanhonacker, F., Enderli, G., Sulmont-Rossé, C., ... & Guàrdia, M. D. (2012). Cross-cultural conceptualization of the words Traditional and Innovation in a food context by means of sorting task and hedonic evaluation. *Food Quality and Preference*, 25(1), 69-78. <https://doi.org/10.1016/j.foodqual.2012.01.008>
16. Guerrero, L., Guàrdia, M. D., Xicola, J., Verbeke, W., Vanhonacker, F., Zakowska-Biemans, S., ... & Hersleth, M. (2009). Consumer-driven definition of traditional food products and innovation in traditional foods. A qualitative cross-cultural study. *Appetite*, 52(2), 345-354. <https://doi.org/10.1016/j.appet.2008.11.008>

17. Hair Jr, J. F., Gabriel, M., Silva, D. D. & Braga Junior, S. (2019). Development and validation of attitudes measurement scales: fundamental and practical aspects. *RAUSP Management Journal*, 54(4), 490-507. <https://doi.org/10.1108/RAUSP-05-2019-0098>
18. Kühne, B., Gellynck, X. & Weaver, R. D. (2015). Enhancing innovation capacity through vertical, horizontal, and third-party networks for traditional foods. *Agribusiness*, 31(3), 294-313. <https://doi.org/10.1002/agr.21408>
19. McFadden, J. R. & Huffman, W. E. (2017). Willingness-to-pay for natural, organic, and conventional foods: The effects of information and meaningful labels. *Food Policy*, 68, 214-232. <https://doi.org/10.1016/j.foodpol.2017.02.007>
20. Migliore, G., Thrassou, A., Crescimanno, M., Schifani, G. & Galati, A. (2020). Factors affecting consumer preferences for “natural wine”. *British Food Journal*, 122(8), 2463-2479. <https://doi.org/10.1108/BFJ-07-2019-0474>
21. Oxford learners dictionaries. <https://www.oxfordlearnersdictionaries.com/definition/english/autochthonous?q=autochthonous>
22. Peterson, R. A. (1994). A meta-analysis of Cronbach’s coefficient alpha. *Journal of Consumer Research*, 21, 381–391. <https://doi.org/10.1086/209405>
23. Petty, R. D. (2015). “Natural” claims in food advertising: Policy implications of filling the regulatory void with consumer class action lawsuits. *Journal of Public Policy & Marketing*, 34(1), 131-141. <https://doi.org/10.1509/jppm.14.147>
24. Pieniak, Z., Perez-Cueto, F. & Verbeke, W. (2013). Nutritional status, self-identification as a traditional food consumer and motives for food choice in six European countries. *British Food Journal*, 115(9), 1297-1312. <https://doi.org/10.1108/BFJ-08-2011-0198>
25. Pieniak, Z., Verbeke, W., Vanhonacker, F., Guerrero, L. & Hersleth, M. (2009). Association between traditional food consumption and motives for food choice in six European countries. *Appetite*, 53(1), 101-108. <https://doi.org/10.1016/j.appet.2009.05.019>
26. Prigoda (2020). *Smart Specialisation*. <https://prigoda.hr/smart-specialisation/>
27. Regulation (EU) no 1151/2012 of the European Parliament and of the Council. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:343:0001:0029:en:PDF>
28. Renko, S. & Bucar, K. (2014). Sensing nostalgia through traditional food: an insight from Croatia. *British Food Journal*, 116(11), 1672-1691. <https://doi.org/10.1108/BFJ-02-2014-0089>
29. Renton, M., Daellenbach, U., Davenport, S. & James, R. E. (2016). Finding fit: An exploratory look at SME brand orientation and brand management in the New Zealand food and beverage sector. *Journal of Brand Management*, 23(3), 289-305. <https://doi.org/10.1057/bm.2016.7>
30. Rozin, P. (2005). The meaning of “natural” process more important than content. *Psychological Science*, 16(8), 652-658. <https://doi.org/10.1111/j.1467-9280.2005.01589.x>
31. Rozin, P., Fischler, C. & Shields-Argelès, C. (2012). European and American perspectives on the meaning of natural. *Appetite*, 59(2), 448-455. <https://doi.org/10.1016/j.appet.2012.06.001>
32. Savelli, E., Bravi, L., Murmura, F. & Pencarelli, T. (2019). Understanding the consumption of traditional-local foods through the experience perspective. *British Food Journal*, 121(6), 1261-1280. <https://doi.org/10.1108/BFJ-05-2018-0290>
33. Serrano-Cruz, M. R., Espinoza-Ortega, A., Sepúlveda, W. S., Vizcarra-Bordi, I. & Thomé-Ortiz, H. (2018). Factors associated with the consumption of traditional foods in central Mexico. *British Food Journal*, 120(11), 2695-2709. <https://doi.org/10.1108/BFJ-11-2017-0663>
34. Syrengelas, K. G., DeLong, K. L., Grebitus, C. & Nayga Jr, R. M. (2018). Is the natural label misleading? Examining consumer preferences for natural beef. *Applied Economic Perspectives and Policy*, 40(3), 445-460. <https://doi.org/10.1093/aep/ppx042>

35. Trichopoulou, A, Soukara, S. & Vasilopoulou, E. (2007). Traditional foods: a science and society perspective. *Trends in Food Science & Technology*, 18(2007), 420-427. <https://doi.org/10.1016/j.tifs.2007.03.007>
36. Umberger, W. J., Thilmany McFadden, D. D. & Smith, A. R. (2009). Does altruism play a role in determining US consumer preferences and willingness to pay for natural and regionally produced beef? *Agribusiness: An International Journal*, 25(2), 268-285. <https://doi.org/10.1002/agr.20194>
37. USDA, Food Standards and Labeling Policy Book (2005). Washington: Office of Policy, Program and Employee Development.
38. Vanhonacker, F., Kühne, B., Gellynck, X., Guerrero, L., Hersleth, M. & Verbeke, W. (2013). Innovations in traditional foods: Impact on perceived traditional character and consumer acceptance. *Food Research International*, 54(2), 1828-1835. <https://doi.org/10.1016/j.foodres.2013.10.027>
39. Vanhonacker, F., Lengard, V., Hersleth, M. & Verbeke, W. (2010). Profiling European traditional food consumers. *British Food Journal*, 112(8), 871-886. <https://doi.org/10.1108/00070701011067479>
40. Wang, O., Gellynck, X. & Verbeke, W. (2016). Perceptions of Chinese traditional food and European food among Chinese consumers. *British Food Journal*, 118(12), 2855-2872. <https://doi.org/10.1108/BFJ-05-2016-0180>
41. Wenzig, J. & Gruchmann, T. (2018). Consumer preferences for local food: testing an extended norm taxonomy. *Sustainability*, 10(5), 1-23. <https://doi.org/10.3390/su10051313>