

1 Article

## 2 Assessing the drivers of traditional and local products 3 consumption in Europe. Are there any contradictions?

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12 **Abstract:** This study assesses attitudes of young adults' (18-30 years old) consumption on local and  
13 traditional products in 7 European countries. A clustered sample (n=836) from natives of Greece,  
14 Bulgaria, Romania, Slovenia, Croatia, Denmark and France was collected, by distributing  
15 questionnaires through social media and university mail services. Sample was examined by  
16 implementing Principal Component Analysis (PCA) in three different samples; overall and two  
17 subgroups, Eastern and Western European countries. Six major factors revealed: consumer  
18 behavior, health issues, cost, influence from media and close environment and availability on store.  
19 As a result, young adults have a positive attitude to local and traditional food products but they  
20 express insecurity for health issues. Cost factor influences less people from Eastern European  
21 countries than those from the overall sample (3rd and 5th factor accordingly). Influence of close  
22 environment is a different factor in Eastern countries comparing to Western ones that it common  
23 with influence from media. Females and older people (25-30 years old) doubt less about TFPs,  
24 while media have high influence on consumers' decisions. Aim of this survey is to create consumer  
25 profiles of young adults and create different promotion strategies of local and traditional products  
26 among the two groups of countries.

27 **Keywords:** traditional; local; consumer behavior; Principal Component Analysis

28

### 29 Introduction

30 It was no longer than 1919 when French agronomists requested in an intense way from their  
31 government to protect by law the quality of their wines from Bordeaux region[1] and set the basis for  
32 later European Union adequate legal framework. Since July 14<sup>th</sup> 1992 EU has established and  
33 implemented a protective agenda for products with locality characteristics, regulating (R2081/92 and  
34 R2082/92) for Protected Designation of Origin (PDO) Protected Geographical Indication (PGI) or  
35 Traditional Specialities Guaranteed (TSG) for food products. Moreover, European Union's (EU)  
36 bilateral agreements with Canada, USA and China secured those products in these markets, by  
37 expanding the aforementioned legal framework, confirming on practice that locality characteristics  
38 can be an economic growth factor for these specific production areas[2]. On July 6<sup>th</sup> 2017, European  
39 Commission (EC) reached an agreement with Japanese government for exports of more than 200  
40 European Geographical Indication products, proving the dynamics of such production methods  
41 even on in regions with completely different culture. As agreements and increasing number of  
42 submitted geographical indication products per year indicate, there is a rising universal interest for

43 products with certain sensory characteristics, a unique identity on production process accompanied  
44 with a tradition on how and when people taste it. Until today, 1403 products are submitted on EU as  
45 PDOs, PGIs and TSGs, the majority of them belonging to Southern Europe countries (Italy(293),  
46 France(244), Spain(194), Portugal(138), Greece(105)) and only few of those products originate from  
47 Northern Europe countries (Finland (10), Sweden(8), Denmark (6))[3].

48 In an attempt to clarify definition of Traditional Food Products (TFPs) for European  
49 consumers, Vanhonacker's *et al* survey underlines the importance of cultural and territorial identity,  
50 transferability from one generation to another, processing and sensory characteristics and describes  
51 different attitudes between countries [4]. TFPs concept has been analysed through personal  
52 interviews resulting in the same definition as the previous survey [5]. In another survey about  
53 locality index consumers have positive feelings both for consuming local products and creating  
54 value for the local community but consumers express negative attitudes for cost and difficulties on  
55 use [6]. European Union's definition about TFPs introduces the sustainability term about local  
56 environments and underlines the importance of labelling[7]. Euro Food Information Resource (FIR)  
57 consortium definition emphasizes on raw materials and production process while simultaneously  
58 there is an effort for transcribing local recipes and their nutritional value in order to maintain  
59 tradition[8].

60 Literature review describes an overall image about European population attitudes towards  
61 TFPs. This survey gives an insight on young consumers' beliefs about traditional products.  
62 Adolescents with a higher education level are considered as a health-sensitive group[9]. Young  
63 adults present a more snack-related food behaviour comparing to overall population [10]. Even from  
64 human physiology aspect young people receive more sensory characteristics than older ones [11]. It  
65 is noteworthy that in this age majority of people leave their parental homes, creating new food  
66 behaviour. In this research, a questionnaire based survey was conducted by implementing a merged  
67 model based on the Theory of Planned Behavior (TPB) and the Health Belief Model (HBM) so as to  
68 investigate attitudes that are connected with traditional food consumption and perceived risk for  
69 young adults' health. Final goal is to determine a marketing strategy that fulfills young consumer  
70 needs.

71 Theory of Planned Behavior (TPB)[12, 13] is an extension of Theory of Reasoned Action (TRA)  
72 that was developed in 1980 by, Ajzen and Fishbein [14]. TPB examines attitudes in three levels: (a)  
73 Attitude towards the behavior, (b) Subjective norm and (c) Perceived behavioral control.

74• (a) Attitude towards behavior is the degree of approval or disapproval of a certain behavior by a  
75 person. A rising interest for products with unique characteristics and an increasing consumption  
76 rate has created a positive image of TFP [15]. Therefore, there is a negative attitude for health issues  
77 about production and manufacturing procedures, especially from people of higher education[16].

78  
79• (b) Subjective norm is the social attitude about a person's behavior. (b) Norms derive from close  
80 environment (family, friends) and media. Family is responsible for creating food and eco-friendly  
81 attitudes to a person[17, 18], while an information from a friend's mouth can severely influence a  
82 person's behavior [19]. Increase of cooking related shows is not random, while there is an effort from  
83 industry's side for greater consumption [20]. European Union presents many differences on food  
84 behavior across different cultures, that sometimes is a barrier for consuming certain products [21].  
85 TFPs can be a sign of identity and a link to their roots for people that live away from their home

86 countries, differing them from inhabitants [22].

87

88• (c) Perceived behavioural control is the level of difficulty for a person to perform a certain behavior.  
89 Safety standards, longer self-life and consumer friendly appearance demand from traditional food  
90 products to be modernized. Innovation on TFPs brings new technologies on safety issues during  
91 production process, nutritional value and packaging. Quality maintenance is the crucial point for  
92 acceptance or not of an innovation from consumers. New technologies can help certain TFPs to be  
93 accepted easier from higher ages (low fat, less salt)[23]. Additionally, innovation is indispensable for  
94 TFPs in order to be accepted from food supply chain. TRUEFOOD Integrated project (2006-2010)  
95 supported by European Commission communicates a series of promotion tools for TFPs based on  
96 modern surveys according with current market needs[24].The above factors determine the intention  
97 of a person to perform a behavior. Strong intensions are more likely to be expressed as a behavior  
98 than weak ones.

99

100 Health Belief Model (HBM) is being used in the food sector in order to measure individuals'  
101 perception for certain products and their opinions about effects to their health [25]. Socioeconomic  
102 characteristics like age, gender, ethnicity, level of education, income and type of job are also  
103 estimated in this model. According to Pechey *et al*, 60% of people with low socioeconomic status buy  
104 food with hazardous effect for their health [26]. Men are found more spontaneous and enthusiasts  
105 while women focus to morals that will receive, when purchasing a certain product [27]. South  
106 Europe presents a higher consumption level of TFPs than north, meaning that ethnicity do affect  
107 relationship with TFPs [28]. Pieniak *et al* in their study among six European countries found a  
108 general difficulty on consumption of TFPs as well as strong doubts about health issues [29]. There is  
109 though a quite important issue regarding the etymology of the word *Ethnicity* for food consumption,  
110 because it influences performed behavior of a person not only in a national level but also in a  
111 regional one [30]. In the same survey, men found to spend more on organic food than women.

112

113 Cost can be a significant factor on final purchasing decisions, as there are groups of people that  
114 are described as hyper-sensitive especially on online markets [31]. Sales of healthy products  
115 increased by 10% when they were on discount, independently of education level [32]. Cost should be  
116 considered in accordance with quality. In survey of Di Vita *et al*, assessing consumer purchasing  
117 decisions on different types of olive oil (conventional, PDO and organic) resulted that highest  
118 influence factor was price for people from rural areas but for urban population area of origin was the  
119 most important one [33], while on another survey for purchasing local jams, quality had the major  
120 role [34]. Moreover cost, availability and preparation time are limiting factors for TFPs consumption  
121 [35]. From consumers' view organic products are considered of high quality ones and more  
122 expensive than conventional. On the other hand, TFPs preserve quality element but they are not  
123 accompanied with high price beliefs [36].Willingness to Pay (WTP) was investigated for TFPs  
124 because they are considered as premium products and thus they should have a different pricing  
125 policy [37].

126

127 Experience on store should be "positive", "pleasant" and "reliant" as survey of Walsh *et al*  
128 indicates [38]. Trust between supplier and seller, strength of habit and personal preferences are the  
most significant factors of meat purchasing behavior [39]. Same issue of trust about local market is

129 confirmed by Migliore *et al*, mentioning again health issues [40]. Consumption pleasure rates are  
130 higher when people are informed about products that are going to taste, especially for young  
131 consumers [41]. Local people are habitually connected with traditional products, making their  
132 consumption a necessity for them [42]. Positive images of using TFPs from celebrations and special  
133 occasions accompany them in their adulthood [43]. There is a rising interest of people caring not only  
134 for quality of products but also for animals' welfare [44]. Small and medium enterprises (SMEs)  
135 should take advantage of this personal communication with local people and promote themselves  
136 [45]. Special identity of TFPs characterizes them unfavorable for new markets and they should be  
137 promoted appropriately to gain entrance in a wider range [46].

### 138 **Materials and Methods**

139 Literature review about consumer behavioral theories was conducted in order to identify the  
140 most important factors that influence the European consumers' perceptions about local and  
141 traditional products. More specifically, social, demographic and psychological factors are of major  
142 importance on influencing decision making process on TFPs consumption. European Union presents  
143 a high heterogeneity as it comes to cultural aspects making it an ideal area for such surveys [47]. In  
144 addition, shop selection and attitudes towards a more environmentally friendly consumer profile,  
145 have been searched. As it was aforementioned, there is a general knowledge about European  
146 perceptions on TFPs but there is a need to broaden the knowledge about consumer behavior of the  
147 young consumer community, which is in fact the dynamic purchasing market for the next 30 years.

148 For this reason, a field, questionnaire based, research was conducted on a European level, during  
149 the period September –October 2016. An Overall stratified sample of 836 respondents has been  
150 collected. Sample was composed from 295 males and 541 females of a mean age 23.3 (St. Dev =3.34).  
151 A higher rate for female respondents has been observed from other papers as well [48]. Educational  
152 level is pretty high while 57.68% of participants had already a degree. Low income was another  
153 characteristic of this dataset with 58.49% receiving a monthly income lower than 500€ per month.  
154 Unemployment ratio was a little lower than EUROSTAT (7.7%) for 2016 [49] compared to overall  
155 sample (5.98%). The questionnaire was based on the above mentioned Theory of Planned Behavior  
156 (TPB) and Health Belief Model (HBM).

157 In the first part of the questionnaire there are questions about the social and demographic data of  
158 the respondents, such as gender, age, income and level of education. The second part introduces to  
159 consumers a group of proposals. More specifically, this part consists of four groups of questions  
160 examining perceptions about TFPs: consumer behavior (group 1), health issues (group 2), cost  
161 (group 3) and degree of influence from different factors (group 4). The Third part focused on  
162 re-examining the respondents' opinions about the previous referred groups and also there were 2  
163 questions referring to the availability of products in stores (group 5). For these questions a Likert  
164 scale was used from 1 (Absolutely disagree) - 5 (Totally agree).

165 The questionnaire was initially tested before distribution in eight (8) European countries in which  
166 it was to be distributed (Greece, Denmark, England, France, Slovenia, Croatia, Bulgaria, and  
167 Romania) to verify that the questions were adequately written and being understandable.

168 In order to evaluate reliability of results, two tests were used:

- 169 • The Kaiser-Meyer-Olkin index (KMO)
- 170 • Barlett's sphericity test

171 The Kaiser-Meyer-Olkin index (KMO) explores the suitability of the sample to be analyzed. In  
172 particular, it examines the relative magnitude of correlation coefficients in relation to the partial  
173 correlation coefficients. The higher correlation, the better is for sample to be analyzed. When KMO  
174 value is too low, less than 0.5, means that the factorial analysis will not conclude to satisfactory  
175 results. Values above 0.7 are acceptable for analysis, and 0.8 are great.

176 With Barlett's sphearisity test, it is examined whether the observed correlation of the data table,  
177 let  $R = (r_{ij}) (p \times p)$ , differ statistically from its actual identity. Therefore, the zero hypothesis ( $H_0$ ) is  
178 that the data is arranged in a rectangular form. This assumption is controlled at a 5% materiality  
179 level.

180 Principal Component Analysis (PCA) was developed by Charles Spearman. Implementation of  
181 the method is clear in areas such as psychology, market research, the labor market and human  
182 resource management, where quantitative measurements produce results that help in making  
183 critical decisions. It is a method that is being used to analyze large datasets, and in this try it  
184 eliminates information in order to form groups (components). Two main elements of PCA are: factor  
185 loading and sum of squared loadings. Factor loading interprets whether a set of data affects the  
186 factor that has been formed. If the participation ratio is fairly low, below 0.4 then it is assumed that  
187 its influence is too small and for this reason it is rejected, from 0.5 - 0.7 the degree of participation is  
188 considered satisfactory and from 0.7 and above it can to explain to a great extent the factor. Sum of  
189 squared loadings describes the amount of variance of a factor. PCA was performed with SPSS 23  
190 statistical software package.

## 191 **Results**

### 192 **Demographics**

193 Table 1 gives an overview of characteristics of Overall sample (n=836), which was derived from  
194 questionnaires completed by 18-30 years old people from different European countries (Greece,  
195 Bulgaria, Romania, Slovenia, Croatia, Denmark, France, and England) with stratified sample to  
196 produce statistically significant results, consisted of 35.3% of men and 64.7% of women. About 70%  
197 of the participants are from 18 to 24, while about 30% are from 24-30. This is mainly due to the way  
198 in which questionnaires were distributed, because distribution has taken place over the internet and  
199 to a large extent through university networks. That explains the lower unemployment rates of the  
200 sample, compared with those of the EU. Moreover, educational level of Overall sample is rather  
201 high, with 35% holding a postgraduate degree. In terms of income criteria, about 60% have an  
202 income of <500 €/month, while 22% are in the income class of 500-1000 €/month, covering a total of  
203 82% of the distribution.

204 Table 1

205 Further analysis was inducted, dividing the overall sample in two subgroups; Eastern European  
206 Countries (Greece, Bulgaria, Romania, Slovenia, Croatia) and Western ones (Denmark, France,  
207 England) in order to further investigate possible significant differences. For this reason, Table 2  
208 presents an overview of the sample characteristics resulting from Eastern European questionnaires  
209 (n=569), which consists of 34.6% of men and 65.4% of women. About 75% of participants are from  
210 18-24 while about 25% are from 24-30. The educational level of the sample is quite high since 32%  
211 hold a master's degree, while about 75% have incomes <500 €/month, and 14% have income of  
212 500-1000€/month.

213 Table 2

214 Sample characteristics from Western European countries (Denmark, France, England) (n=267) are  
215 presented in Table 3, which consists of 36.7% of men and 63.3% of women. About 60% of  
216 participants are from 18-24 while about 40% are from 24-30. The educational level of the sample is  
217 quite high, with 41% holding a postgraduate degree. There are noticeable differences with respect to  
218 Table 2 concerning income criteria, since approximately 22% have an income of <500€/month, while  
219 37% are in the income class of 500-1000€/month, covering a total of 82% distribution.

220 Table 3

221 To sum up, it is noted that the overall sample refers to young people with an average age of 23  
222 years, a high educational level, while the economic criteria differ for the individual categories, with  
223 Western countries having higher monthly incomes.

224

225 Principal Component Analysis results

226 Overall sample

227 For Principal Component analysis of the overall sample (n = 836), KMO index (= 0.793) showed a  
228 high degree of consistency between variables. Analysis carried out revealed 5 main factors reflecting  
229 61% of total variance. Table 4 presents the factor loadings, which are quite satisfactory (> 0.500) to  
230 very satisfactory (> 0.700), except of two cases where the index value is marginal (0.400-0.500). [Q2.4  
231 *People, that their opinion is important for me, approve buying and use of local and traditional products.*(0.470),  
232 Q3.12 *My friends influence me so as to consume local and traditional products*(0.453)]

233 Moreover 4 questions removed due to their very low loadings (<0.200)

234 Q2.6 *It depends on me if I will consume or not local and traditional products*

235 Q2.7 *I don't feel well when other people see me buying local and traditional products*

236 Q3.1 *Health is better than wealth*

237 Q3.8 *I buy local and traditional food products from small local shops.*

238 Table 4

239 Eastern European Countries

240 For Eastern European Countries (n = 569) KMO index (= 0.783) showed the very good degree of  
241 consistency between variables. Analysis carried out revealed 6 main dimensions reflecting 68% of  
242 total variance.

243 Table 5

244 Western European Countries

245 For Western European sample (n = 267), KMO index (= 0.770) and components reflecting (57%) of  
246 total variance, yielding fewer results compared to the previous sets, and this is mainly due to the  
247 small number of questionnaires completed. However, the ratio between the number of observations  
248 and the number of variables is quite strong (267/16, approximately 17 per variable, when literature  
249 considers as a very satisfactory ratio=10 observations per variable).

250 Table 6

251 Finally, by comparing the importance of the components and their rating according to the  
252 socio-economic characteristics (gender, age, education and income), some differences can be found,  
253 which are summarized in the following table.

254 Table 7

255

256 **Discussion**

## 257 Overall Sample

258 1st Component: Consuming TFPs is a good and healthy consumer behavior. In this component it  
259 appears that women tend to give even greater importance to hygienic behavior (p-value <0.05),  
260 confirming that there are differences in gender consumption behavior, as described in the literature  
261 review.

262 2nd Component: Emphasis is given on questions about insecurity on consumption of TFPs. It is  
263 worth noting that this feeling is negatively correlated with age, while the higher the level of  
264 education, the less insecurity and fear.

265 The first two components refer to two different perceptions but the first component (positive  
266 perception) is almost two times more important than the second one (negative perception). As in the  
267 bibliographic review, it was emphasized that consumers are rather skeptical about their use due to  
268 the lack of food safety criteria that are being observed during their production process.

269 3rd Component: The role of the economic dimension does not overshadow the first component  
270 that highlights positive factors such as health and good consumer behavior. This is perhaps due to  
271 the fact that even if local products are sometimes more expensive than conventional ones, they  
272 provide consumers an additional degree of satisfaction. This additional satisfaction, in comparison  
273 with conventional products, provide hints for extra loyalty between producers and consumers of  
274 TFPs.

275 4th Component: Explains the influence of the media and the surrounding environment. The role  
276 of media and friends increases with age (positive correlation). Influence is on average higher for  
277 women than men.

278 5th Component: The last component is the degree of difficulty in finding and purchasing local  
279 traditional products. Consumers do not have a particular problem with finding local products, since  
280 both variables have a high degree of participation (> 0.700).

281

## 282 Eastern European Countries

283 The main difference with respect to the overall sample is the economic benefit resulting from the  
284 consumption of local traditional products. For young people in the Eastern countries, this dimension  
285 does not appear very important: it is now the 5th component in order of importance versus 3rd in  
286 the 1st model.

287 It is worth noticing that the opinion of close environment is in this case an important and distinct  
288 component (4th Component) as opposed to young people of Western European countries. People of  
289 Eastern European countries seem to have closer relations and thus are capable of influencing each  
290 other more, in relation to people of Western European societies.

291 Table 5 presents the six (6) different components for local and traditional products, with the main  
292 component recommending that the purchase and consumption of local and traditional products is a  
293 good consumer behavior. The second component is consumer insecurity with regards to the impact  
294 of their health, while the 3rd and 4th components appear to be the influence by the media and close  
295 friendly environment. Although media seem to affect consumers, importance of nearby  
296 environment, which is not a separate factor for Western European countries, is underlined. As  
297 already mentioned, the 5th Component expresses the economic factor, while the 6th component  
298 expresses the inability to locate local and traditional products by consumers.

## 299 Western European Countries

300 The first component is particularly strong consisting of 9 variables. Positive consumer behavior is  
301 directly related to the opinion of the immediate environment as well as the economic benefit, which  
302 is not a separate dimension. As a consequence, the economic dimension for young people in the  
303 Western world is not as important as the previous group and is not, by itself, a dominant factor. The  
304 second component refers to the impact of traditional products on health with a large contribution of  
305 individual factors ( $> 0.750$ ), which once again confirms the lack of trust for TFPs. The third  
306 component expresses the degree of influence from media, which appears to be a component in itself.  
307 Finally, in the fourth component there is a difficulty on finding and identifying local products, as  
308 many declare that it is difficult to find them, while others verify that traditional products are  
309 available in supermarkets.

310 Having in mind the finding of this survey, it is noteworthy to clarify promotion methods for each  
311 market segment. In particular, two clear consumer profiles are presented on Table 8. Five main  
312 dimensions can be considered are significant pillars for introducing and implementing a promotion  
313 plan for local and traditional products.

314 Table 8

315 1<sup>st</sup> Dimension: It is very positive that the consumption of local and traditional products is a good  
316 consumer behavior for young consumers in both Eastern and Western European countries.  
317 Therefore, since the perception of these products is already positive, there is no need to further insist  
318 on this issue.

319 2<sup>nd</sup> Dimension: TFPs should inspire safety to consumers both in terms of production process and  
320 packaging. Safety issue is extremely important as almost all research findings verify this, with this  
321 particular field research confirming it as well. It is therefore of major importance that TFPs should  
322 have all corresponding certifications in order to eliminate insecurity from consumers. The same  
323 sense of security should be depicted for packaging, by using the appropriate technology and  
324 aesthetics.

325 3<sup>rd</sup> Dimension: Cost dimension was one of the factors introduced in the questionnaire but it was  
326 quite ambiguous the way it affects consumer behavior and more precisely younger audience with  
327 lower incomes. So it appeared that cost comes as 5<sup>th</sup> Component for the Eastern countries compared  
328 with the overall sample where it appears as 3<sup>rd</sup> component. This was quite surprising, as eastern  
329 European countries, facing greater financial difficulties, seem to be willing to pay more for  
330 purchasing quality products and more precisely TFPs. Therefore, for firms producing or marketing  
331 such products, there is a potential for greater profitability in Eastern European countries.

332 4<sup>th</sup> Dimension: According to the Theory of Planned behavior, individuals appear to be affected by  
333 subjective norms. It seems that the opinion of close environment is, for the sample of the Eastern  
334 European countries, a fourth component in contrast to the young people of Western European  
335 countries, which, in that case, is not a separate component. This information can be immediately  
336 utilized as it is fully understood that young people in Eastern countries are more easily affected by  
337 their friends or close related people. In addition, thematic events could be organized referring to  
338 such products and their uses so as to give an overall approach of their special characteristics to the  
339 public. In this way, they have the potential to influence both participants and individuals from their  
340 nearby environment, influencing them positively about their products.

341 5<sup>th</sup> Dimension: Availability dimension, which is a separate component for all three samples,  
342 appears to be of great significance. It is worth mentioning that interpretation of results is a model of



343 analysis of perceptions rather than events. In other words, consumers believe that these products are  
344 not in hypermarkets even if they are there. This is a fairly serious problem, as if consumers have  
345 difficulty finding them, then they are not able to buy and consume them. For this reason, it is  
346 proposed either to place TFPs in separate places in supermarkets, or for companies distributing their  
347 TFPs through hypermarkets to create special stands for their products under a clear thematic  
348 approach, so as to be easily recognizable from consumers. It could also be part of an advertising  
349 campaign, focusing, among others, that these products can be found in specific chain stores.

### 350 **Conclusions**

351 This study focuses on the consumers' attitudes and perceptions on TFPs, trying to describe the  
352 factors driving their final consumption choices. Through this research, the profile of new consumers,  
353 who will be the most important market segment of the next decade, is described. Main research  
354 findings are summarized as follows:

- 355 • Positive image for TFPs among young adults
- 356 • Health issues are highly important and thus TFPs should inspire safety with their  
357 certifications and packaging
- 358 • Cost is a factor that affects less young adults from Eastern European countries than those  
359 from Western countries
- 360 • Media affect more adolescents from Western countries while influence from close  
361 environment is more significant for people from Eastern European countries
- 362 • Availability of TFPs is an issue for young consumers and certain actions from suppliers  
363 should be taken.

364 Further research is essential to be made by focusing on both specific markets and products. As it  
365 was already mentioned, Europe is an area with many different cultures and each case should be  
366 examined separately. This new knowledge is essential for formulating more efficient promoting  
367 strategies towards increasing market shares of TFPs globally, by incorporating the values of  
368 European culture into dietary habits.

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386 **Appendix**

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**University of Thessaly**

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**Department of Agriculture Crop Production and Rural Environment**

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Laboratory of Agriculture Economy and Consumer Behavior

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391

**Questionnaire**

392

393 **Part 1 (about you)**

394 1.1 Age: |\_\_|\_\_|

395 1.2 Gender: Male

Female

396 1.3 Nationality:

397 1.4 Monthly income:

398 1. &lt;500€

399 2. 500 - 1000€

400 3. 1000 - 1500€

401 4. 1500 - 2000€

402 5. 2000 - 2500€

403 6. 2500 - 3000€

404 7. &gt;3000€

405 1.5 Type of job:

406 1. Employed

407 2. Unemployed

408 3. University Student

409 4. Other (please specify).....

410 1.6 Educational level:

411 1. High school graduate

412 2. Bachelor's degree

413 3. Master's degree

414 4. PhD's degree

415

416 Part II (Food) Traditional and local products are the ones that are being produced in a specific part

417 of a country for a very long period of time and in most cases their name is totally linked with the

418 culture and the tradition of this region.

419 Please rate the following sentences (1-5 scale)

420

2.1 Buying local and traditional products is a good consumer behavior.

2.2 Using local and traditional food products is a good practice for my health.

2.3 It's a good practice for my wage to consume local and traditional products.

2.4 People, that their opinion is important for me, approve buying and use of local and traditional products.

2.5 People, that their opinion is important for me, recommend me to buy and use local and traditional products.

2.6 It depends on me if I will consume or not local and traditional products.

2.7 I don't feel well when other people see me buying local and traditional products.

2.8 I intend to increase consumption of local and traditional products.

2.9 I want, from now and on, to consume local and traditional products.

421

422 **Part III:** Please rate the following sentences (1-5 scale)

3.1 Health is better than wealth.

3.2 Consuming local and traditional products is dangerous for my health.

3.3 I am afraid of jeopardizing my health by consuming local and traditional food products.

3.4 Consuming local and traditional products can cause irreversible damage to my health.

3.5 Consuming local and traditional products is economically beneficial.

3.6 Consuming local and traditional products is beneficial for my health.

3.7 It's hard to find local and traditional products.

3.8 I buy local and traditional food products from small local shops.

3.9 I buy local and traditional food products from supermarkets.

3.10 Media persuade me so as to consume local and traditional products.

3.11 Media persuade me so as to consume healthy products.

3.12 My friends influence me so as to consume local and traditional products.

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Table 1: Demographics of Overall sample (n=836)

Overall sample

	Male	Female	Summary
Gender	295	541	836
(%)	35.29	64.71	
Age (Average)	23.70	23.10	23.30
Standard Deviation	3.58	3.22	3.34
18-24(%)	24	48	72
24-30(%)	11	17	28
Education level (%)			
High school graduate	42.71	42.14	42.34
Bachelor	34.24	35.49	35.05
Master	18.98	19.59	19.38
PhD	4.07	2.77	3.23
Income month (%)			
<500€	75.57	22.1	58.49
500 - 1000€	14.94	37.08	22.01
1000 - 1500€	6.50	16.85	9.81
1500 - 2000€	1.05	6.74	2.87
2000 - 2500€	0.88	6.74	2.75
2500 - 3000€	0.18	1.87	0.72
>3000€	0.88	8.61	3.35
Job Status (%)			
Employed	24.41	20.70	22.01
Unemployed	5.42	6.28	5.98
University Student	70.17	73.01	72.01

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Table 2: Demographics of East European countries sample (n=569 )  
East European Countries

	Male	Female	Summary
Gender	197	372	569
(%)	(34.0)	(65.4)	
Age (Average)	23.3	22.7	22.9
Standard Deviation	3.64	3.18	3.36
18-24(%)	25	52	76
24-30(%)	10	14	24
Education level (%)			
High school graduate	49.75	48.66	49.03
Bachelor	32.49	31.99	32.16
Master	12.69	15.59	14.59
PhD	5.08	3.76	4.22
Income month (%)			
<500€	70.05	78.49	75.57
500 - 1000€	14.72	15.05	14.94
1000 - 1500€	10.15	4.57	6.50
1500 - 2000€	1.02	1.08	1.05
2000 - 2500€	2.03	0.27	0.88
2500 - 3000€	0	0.27	0.18
>3000€	2.03	0.27	0.88
Job Status (%)			
Employed	17.77	16.40	16.87
Unemployed	5.08	5.65	5.45
University Student	77.16	77.96	77.68

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Table 3: Demographics of West European countries sample (n=267)

West European Countries			
	Male	Female	Summary
Gender	98	169	267
(%)	36.70	63.30	
Age (Average)	24.5	23.7	24.0
Standard Deviation	3.3	3.2	3.2
18-24(%)	22	39.7	62
24-30(%)	14.7	23.6	38
Education level (%)			
High school graduate	28.57	27.81	28.09
Bachelor	37.7	43.20	41.20
Master	31.63	28.40	29.59
PhD	2.04	0.59	1.12
Income month (%)			
<500€	19.39	23.67	22.10
500 - 1000€	35.71	37.87	37.08
1000 - 1500€	17.35	16.57	16.85
1500 - 2000€	6.12	7.10	6.74
2000 - 2500€	10.20	4.73	6.74
2500 - 3000€	3.06	1.18	1.87
>3000€	8.16	8.88	8.61
Job Status (%)			
Employed	37.76	30.18	32.96
Unemployed	6.12	7.69	7.12
University Student	56.12	62.13	59.93

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Table 4: PCA results for Overall sample (n=836)

		H <sup>2</sup>	Component				
			Consumer behavior	Health	Cost	Influence	Availability
Q2.8	I intend to increase consumption of local and traditional food products.	.574	.748				
Q2.2	Using local and traditional food products is a good practice for my health.	.577	.739				
Q2.9	I want, from now on, to consume local and traditional food products.	.616	.733				
Q2.1	Buying local and traditional food products is a good consumer behavior.	.556	.720				
Q3.6	Consuming local and traditional food products is beneficial for my health.	.561	.696				
Q2.4	People, that their opinion is important for me, approve buying and using local and traditional food products.	.470	.490				
Q3.3	I am afraid of jeopardizing my health by consuming local and traditional food products.	.728		.844			
Q3.2	Consuming local and traditional food products is hazardous for my health.	.682		.823			
Q3.4	Consuming local and traditional food products can cause irreversible damage for my health.	.664		.809			
Q2.3	It's a good practice for my wage to consume local and traditional products	.647			.750		
Q3.5	Consuming local and traditional food products is economically beneficial.	.573			.740		
Q2.5	People, that their opinion is important for me, recommend	.518			.497		

	buying and using local and traditional food products.						
Q3.10	Media persuade me to consume local and traditional food products.	.720				.832	
Q3.11	Media persuade me to consume healthy products.	.686				.823	
Q3.12	My friends influence me so as to consume local and traditional products.	.453				.558	
Q3.9	I buy local and traditional food products from supermarkets.	.659					.744
Q3.7	It is hard to find local and traditional food products.	.655					.742
Extraction Sums of Squared Loadings (% of Variance)			24.5	13.8	9.4	6.8	6.3

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Table 5: PCA results for East European countries sample (n=569)

		H <sup>2</sup>	Component					Availability
			Consumer behavior	Health	Influence (media)	Influence (friends)	Cost	
Q2.2	Using local and traditional food products is a good practice for my health.	.644	.776					
Q2.8	I intend to increase consumption of local and traditional food products.	.620	.776					
Q2.9	I want, from now on, to consume local and traditional food products.	.670	.766					
Q2.1	Buying local and traditional food products is a good consumer behavior.	.636	.730					
Q3.6	Consuming local and traditional food products is beneficial for my health.	.606	.677					
Q3.3	I am afraid of jeopardizing my health by consuming local and traditional food products.	.740		.847				
Q3.2	Consuming local and traditional food products is hazardous for my health.	.674		.811				
Q3.4	Consuming local and traditional food products can cause irreversible damage for my health.	.684		.798				
Q3.10	Media persuade me to consume local and traditional food products.	.762			.863			
	Media persuade me to consume healthy products.	.731			.845			
Q3.12	My friends influence me so as to consume local and traditional products.	.477			.552			



Q2.4	People, that their opinion is important for me, approve buying and using local and traditional food products.	.848				.873		
Q2.5	People, that their opinion is important for me, recommend buying and using local and traditional food products.	.831				.845		
Q3.5	Consuming local and traditional food products is economically beneficial.	.768					.857	
Q2.3	It's a good practice for my wage to consume local and traditional products	.727					.800	
Q2.6	It depends on me if I will consume or not local and traditional food products	.596						.752
Q3.7	It is hard to find local and traditional food products.	.568						.726
Extraction Sums of Squared Loadings (% of Variance)			24.8	14.8	8.5	7.3	6.3	6.1

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Table 6: PCA results for Western European countries sample (n=267)

		H <sup>2</sup>	Component			
			Consumer behavior	Health	Influence	Availability
Q2.2	Using local and traditional food products is a good practice for my health.	.520	.718			
Q2.9	I want, from now on, to consume local and traditional food products.	.520	.715			
Q2.1	Buying local and traditional food products is a good consumer behavior.	.515	.695			
Q3.6	Consuming local and traditional food products is beneficial for my health.	.494	.667			
Q2.4	People, that their opinion is important for me, approve buying and using local and traditional food products.	.495	.645			
Q2.8	I intend to increase consumption of local and traditional food products.	.472	.636			
Q2.5	People, that their opinion is important for me, recommend buying and using local and traditional food products.	.491	.623			
Q2.3	It's a good practice for my wage to consume local and traditional products	.484	.563			
Q3.12	My friends influence me so as to consume local and traditional products.	.490	.502			
Q3.2	Consuming local and traditional food products is hazardous for my health.	.677		.822		
Q3.3	I am afraid of jeopardizing my health by consuming local and traditional food products.	.676		.811		
Q3.4	Consuming local and traditional food products can cause irreversible damage for my health.	.581		.753		
Q3.11	Media persuade me to consume healthy products.	.648			.791	
Q3.10	Media persuade me to consume local and traditional food products.	.672			.777	
Q3.7	It is hard to find local and traditional food products.	.655				-.790
Q3.9	I buy local and traditional food products from supermarkets.	.667				.772
Extraction Sums of Squared Loadings (% of Variance)			25.2	13.5	8.9	8.5

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518 Table 7: Linear regression of socioeconomic status with factors of two subgroups, East and West  
 519 European countries accordingly.

Contents	Gender	Age	Education	Income
East European Countries				
Healthy behavior	**	*	*	
Insecurity				
Media	*	**	**	**
Close environment				*
Financially beneficial				*
Availability				
West European Countries				
Healthy behavior	**			**
Insecurity		*		*
Media				
Avaiability				**

520 \*\* p-value < 0.01, \* p-value < 0.05

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Table 8: Eastern and Western European young adults' profile

Eastern European Countries	Western European Countries
<ul style="list-style-type: none"> <li>• <b>Good and healthy consumer behavior</b></li> <li>• <b>High safety standards</b></li> <li>• <b>Cost (Potential high profit)</b></li> <li>• <b>Close environment(friends, family)</b></li> <li>• <b>Availability on store</b></li> </ul>	<ul style="list-style-type: none"> <li>• Good and healthy consumer behavior</li> <li>• High safety standards</li> <li>• Cost</li> <li>• Media</li> <li>• Availability on store</li> </ul>

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