

1 **Author version**

2 Published article / Citation:

3 **Guiné RPF, Florença SG, Barroca MJ, Anjos O (2021) The duality of innovation and food**
4 **development versus purely traditional foods. Trends in Food Science & Technology, 109(1),**
5 **16-24.**

6 **The duality of innovation and food development versus**
7 **purely traditional foods**

8 *Suggested Short Title: Innovation and food development in traditional foods*

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Abstract

26 *Background:* Intangible cultural heritage includes knowledge and skills transmitted
27 throughout times, and this also applies to the food sector. Traditional knowledge assumes
28 important social and economic value, which is relevant both for sectorial clusters as well
29 as for majority social groups.

30 *Scope and approach:* The objective of this review was to analyse the constraints and
31 motivations for development in the sector of traditional foods, from the point of view of
32 marketing and consumer trends. This review was based on published works searched for
33 in scientific databases, such as ScienceDirect, PubMed, Scopus and web of Science.

34 *Key findings and conclusions:* This review showed that the value of tradition,
35 recognized in many sectors of society, is also important in the food sector, which is
36 particularly rich in ethnical elements, local ingredients, traditional formulations and social
37 aspects, linked not only to the food itself but also to the act of eating and sharing. However,
38 the food industry seeks development of new products that follow modern trends and are
39 able to conquer today's consumers, while at the same time maintaining the identity of
40 specific products, valued as traditional.

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43 **Keywords:** Consumer acceptance, ethnic food, marketing innovation, price,
44 traditional food.

45

46 **1. Introduction**

47 Having in mind the present competitive and fast shifting markets, companies rely
48 much on the successful development and introduction of new products and/or services into
49 the market. Innovation is a vast and multi-dimensional concept, which can be defined as
50 the capacity to develop new products, new processes, new forms of organisation or even
51 new markets (Horvat et al., 2019; Kalluri & Kodali, 2014; Kühne et al., 2010).

52 There is an increased interest in traditional food products, which represent a growing
53 segment in the European food market. So as to maintain or even increase market share and
54 profitability and take advantage of marketing opportunities, the traditional food sector
55 companies are also impelled to innovate, even though innovations are controversial in this
56 particular context (Kühne et al., 2010; Vanhonacker et al., 2013).

57 Presently, the food sector is regarded as one of the most important in the current global
58 economy. Yet, food industry or food service companies still face many challenges in
59 managing their products and competing in the market, being an area with high degrees of
60 new product failure (Horvat et al., 2019; Pinna et al., 2017, 2018; Rynänen & Hakatie,
61 2014). Innovation is generically accepted as one of the keys to success, although it is not
62 enough to guarantee success for its own. In fact, companies can innovate and still fail if the
63 innovation was not market driver, i.e., if the markets fail to accept it. Frequently, the
64 acceptance of an innovation will depend not only on the innovation itself but also on the
65 product to which it was applied. In the case of traditional foods, more than for other food
66 categories, the level of novelty and its conceptualization are critical determinants of
67 consumer acceptance (Guerrero et al., 2016; Vanhonacker et al., 2013).

68 Consumers usually associate Traditional food products with quality and associate them
69 with tradition. However, and at the same time, they also demand for healthier, more
70 nutritious, and more convenient products. Hence, innovation becomes essential to meet
71 consumers' demands, and if traditional food products want to keep the pace, they need
72 innovation as much as other food products. Consumers feel divided about innovation in
73 traditional products, due to the contradictory concepts laying underneath: innovation *versus*

74 tradition. On the other hand, this is a particular window of opportunity because it brings
75 innovation into a product that has a special position precisely because it is meant to be
76 traditional (Bigliardi, 2019; Gere et al., 2019).

77 This review explores some aspects related to the constraints and motivations for
78 development and innovation in the sector of traditional foods, from the point of view of
79 modern marketing and consumer trends.

80 **2. The importance of tradition in the food market**

81 The protection of a society's identity is to some extent also associated with traditional
82 foods, besides other aspects of culture and heritage. Probably the most known example is
83 the Mediterranean diet, recognized by UNESCO and inscribed in 2013 on the
84 Representative List of the Intangible Cultural Heritage of Humanity. The Mediterranean
85 diet was recognized as a healthy diet in the middle of the 20th century, after the end of
86 World War II, and is constituted by certain types of foods which are characteristic in
87 peoples' diets in the countries that surround the Mediterranean sea (Guiné, 2016;
88 Nissensohn et al., 2016; Noale et al., 2014). The foundations of the Mediterranean diet are
89 variety, moderation and the predominance of vegetables over foods of animal origin.
90 However, not only the foods are on the focus of this dietary pattern, because they are
91 complemented by a philosophy of life that values personal relationships, the pursuit of
92 happiness and physical activity. A gastronomy rich in colours, shapes and flavours was
93 developed in these Mediterranean countries, that is also rich from the social point of view,
94 since it brings life and nature together in harmony. The cultural roots of the Mediterranean
95 diet include sharing, enjoying conversation around the table and relaxing after the main
96 meal of the day with a nap (siesta). This antique cultural heritage, which has developed
97 through times, is considered as one of the healthier, more prudent and balanced dietary
98 models currently practiced. In true, much of the history of food is the core of the history of
99 society itself, and combines culture and nature, as well as the spirit and the body (López,
100 2019).

101 Other examples of cultural heritage recognized by UNESCO in the area of food and
102 diet include the Nsima - culinary tradition of Malawi (recognized in 2017), the Washoku
103 - traditional dietary cultures of the Japanese especially for the celebration of New Year
104 (recognized in 2013), the Gastronomic meal of the French (in 2010) and the Traditional
105 Mexican cuisine – ancestral, ongoing community culture, the Michoacán paradigm (also
106 recognized in 2010). All these certify certain foods or dietary patterns as valuable elements
107 of a society’s cultural patrimony (UNESCO, 2019).

108 The importance of intangible cultural heritage relies on the wealth of knowledge and
109 skills that are transmitted from generation to generation throughout times. The social and
110 economic value of traditional knowledge is relevant both for the minority groups as well
111 as for mainstream social groups. Intangible cultural heritage is expressed through
112 processes, phrases, know-how and abilities (including associated objects and cultural
113 spaces), which people recognize as essential pieces of their cultural heritage. To spread
114 through generations and constantly recreate this heritage, ensures humanity with a sense of
115 identity and continuity. Also, considering a more economic side, this heritage and the
116 activities linked with it definitely contributes to the economic and social development of a
117 country or community (Petronela, 2016).

118 Certain food products, because they bear distinguishable characteristics, started to be
119 named after their place of origin or production, being this an integral part of their names,
120 and making them unique (Guiné, 2016). Recognizing the importance of such products, the
121 European union (EU) developed some mechanisms, which were important milestones in
122 the European Quality Policy. These assume the protection of designations relating to
123 traditional agricultural products and foodstuffs. It’s been more than 20 years ago that the
124 EU introduced measures to regulate certification schemes, particularly, through
125 Regulations (EC) 2081/92 and 2082/92, and to promote them as a way to develop
126 opportunities and preserve the traditional characteristics of certain foods and/or processes
127 used for food production. In this ambit, it was created the European System of Protection
128 and Quality of Agricultural Products and Foodstuffs, which accounts for two levels of
129 protection: Protected Designation of Origin (PDO) and Protected Geographical Indication

130 (PGI), and was also established the European System of Appreciation of the Specificity of
131 Certain Agricultural Products and Foodstuffs, taking into account the traditional way of
132 production or the composition, this relates to the Traditional Specialty Guaranteed (TSG)
133 (Conneely & Mahon, 2015; EC, 2004; Guiné, 2016; Vales, 2014). Although these refer to
134 all types of traditional products or methodologies, like for example traditional art, singing,
135 dancing, it is a fact that many foods are also embraced by these regulations, such as cheese,
136 wine, olive oil, honey, pastry products, among others (Reis & Malcata, 2011; Ríos-Reina
137 et al., 2019; Rodríguez et al., 2019; Savin, 2018; Torreblanca-Zanca et al., 2019).

138 Although with the principal focus on the protection of European patrimony, the
139 measures for protection developed by the EU are now expanded to other cultures. Since
140 2006, Asian countries can benefit from protection of their food products under the
141 European scheme for PDOs and PGIs, and four Asian grain-based products have been
142 registered (Melini & Melini, 2019).

143 **3. Innovation in traditional products**

144 Traditional food products constitute a significant category within the European food
145 market, representing a key role in the daily food intake, reflecting cultural inheritance and
146 bringing a past imprint to the contemporary dietary patterns in Europe. It is known that
147 dietary patterns, however, may change with time and with specific societal influences. In
148 today's food market, it is much appreciated the nutritional value of food and how the food
149 product can bear health enhancing properties. This has led to changes in consumer
150 behaviour, increasing the demand for products with specific characteristics, such as for
151 example, higher fibre content, less fat and especially saturated or trans-fat, less salt, less
152 sugar and particularly refined sugars, and reduced calories. If there are some cases in which
153 the traditional foods are associated with increased health benefits, like in the case of the
154 Mediterranean diet, it is also true that many of the traditional products are high in fat, salt
155 or sugars. The health benefits of the Mediterranean diet are fully documented and it is
156 known that the incidence or risk of major chronic diseases, such as coronary heart disease,
157 thrombotic stroke, metabolic syndrome and diabetes, cognitive impairment, and cancer,

158 can be reduced and even prevented with healthy lifelong dietary habits, in accordance with
159 the Mediterranean diet principles (Boccardi et al., 2018; Mente et al., 2009; Misirli et al.,
160 2012; Petersson & Philippou, 2016; Salas-Salvadó et al., 2011; Schwingshackl &
161 Hoffmann, 2016). However, other traditional foods do not impart so desirable health
162 effects, like for example, traditional hams are very rich in salt, cheeses are very rich in fat
163 including saturated fat, or pastry that is very much based on high amounts of sugars and
164 particularly sucrose (Macedo et al., 1993; Martuscelli et al., 2017; Oliveira et al., 2019).

165 A stronger interest in health is associated typically with a lower consumption of
166 traditional foods. This is an indicator that maybe in a near future the consumption of
167 traditional food products might come to a point in which the peoples' perceptions of
168 traditional foods as less healthy may dictate a steep decrease in their consumption. A major
169 threat for the future of traditional foods is possibly an insufficient adaptation to new
170 requirements demanded by the consumers. Nevertheless, this may come as an antagonist
171 idea to the concept of tradition or traditional food, since innovation is not by principle
172 associated with tradition. Because of this duality, it is particularly difficult to develop
173 innovations with a good consumer acceptance within the category of innovation in
174 traditional products (Hersleth et al., 2011; Jordana, 2000; Trichopoulou et al., 2007).

175 The concept of traditional food product has been associated with four typical
176 dimensions as follows: "habit-natural", "processing-elaboration", "sensory properties" and
177 "origin-locality". Hence, it was found that most consumers associate traditional food with
178 habits; products that are consumed on a daily basis or at least frequently, and that became
179 part of their lives. Because these products are highly and frequently consumed, people tend
180 to attribute them very characteristic features that they became accustomed to and that they
181 know far too well. Consequently, even small changes in the sensory quality are probably
182 easily detected by regular consumers, making it particularly important that the food
183 industry carefully devotes resources to investigate consumers' reaction to changes in the
184 sensorial properties of products of traditional basis before trying to launch them on the
185 market (Luis Guerrero et al., 2009, 2010; Vanhonacker et al., 2013)

186 Other difficulties are associated with the dimension “processing-elaboration”, because
187 many processing methodologies are what typically contribute for the traditional nature of
188 the foods in question. To be traditional, a food product not only has to contain traditional
189 ingredients, but it also has to be processed in a traditional way and/or according to
190 traditional recipes. Hence, testing a product in relation to their sensory characteristics is
191 probably not enough to guarantee acceptance of a “novel” traditional food. Moreover, it is
192 essential to evaluate the consumers’ reaction when faced with information about the origin
193 of the raw materials used as well as the processing methods utilized (Caporale &
194 Monteleone, 2004; Luis Guerrero et al., 2009, 2010; Hersleth et al., 2011; Vanhonacker et
195 al., 2013).

196 Providing information about “origin-locality” in the case of traditional foods is
197 essential for consumers’ valuation and appreciation of food products. For the foods to be
198 perceived by consumers as typical, they must be recognizable among other similar
199 products, i.e. they must match the “typical” image that usually that type of product evokes.
200 The consumer behaviour and decision-making when choosing to buy or consume the
201 product are linked to the product’s image in the mind of the consumer, i.e., to its
202 expectations. The information that is given to consumers has, therefore, possibly a
203 symbolic as well as emotional meaning, which can determine higher or lower degree of
204 product acceptability. In most of the cases, providing such information to consumers,
205 indicating that, for example the foods were produced in their own local area or country, is
206 beneficial and leads to increased acceptability (Hersleth et al., 2011; Iaccarino et al., 2006;
207 Roininen et al., 2006; Stefani et al., 2006).

208 In today’s society many people travel across borders, either due to working needs or
209 for leisure purposes, and therefore consumers become in contact with gastronomic and
210 dietary realities characteristics of other countries. Hence, they also get acquainted with
211 many different types of traditional foods, and this familiarization may be a motor for better
212 acceptance of innovations in the sector of traditional foods. Also, globalisation, migration
213 and the increase in trade between countries extend the variety of products traded across
214 borders. The effects of product origin can also be evaluated when they are faced with

215 comparisons between a product from their homeland with the same type of product from a
216 different country (Hersleth et al., 2011; Iaccarino et al., 2006; Roininen et al., 2006; Stefani
217 et al., 2006).

218 To provide consumers with information like brand, origin, price and nutritional value
219 will have a positive influence on their expectations, being these aspects of particular
220 importance in the case of traditional food products. Local and traditionally-made products
221 usually lead to higher expectations than products coming from industrial production.
222 Disconfirmation corresponds to a discrepancy between the expected and the experienced
223 characteristics of a product, and it influences product perception, attitude formation and
224 purchasing intentions. Disconfirmation is positive when the product is perceived as better
225 than expected, while if the product is worse than expected, then disconfirmation is negative.
226 One other important aspect that influences consumers' perception of food is the suitability
227 for use in a certain context (Hersleth et al., 2011; Monteleone & Bertuccioli, 2006; Sabbe
228 et al., 2009).

229 In the research by Vanhonacker et al. (2013) that investigated the consumer acceptance
230 of innovations in traditional foods in six European countries, it was found that consumer
231 acceptance was linked to the perceived impact of the innovation on the traditional nature
232 of the food. Consumers are generally open towards innovations in traditional food products.
233 Nevertheless, the highest levels of acceptance refer to innovations that reinforce the
234 traditional character of the product (like, for example, a label that guarantees authenticity)
235 or innovations that bear benefits by improving initial negative attributes of the traditional
236 food (like, for example, the reduction of sugar, fat or salt content). Furthermore, the results
237 demonstrated that these types of innovations would not likely attract new consumers to the
238 traditional foods' market, but consumers already accustomed to traditional foods showed a
239 clear positive acceptance for innovations in traditional foods (Vanhonacker et al., 2013).

240 Kühne et al., (2010) studied in what extent consumers from three European countries,
241 accept innovations in the traditional food sector. The results obtained indicated that, in
242 general, the consumers as well as the elements of the food chains were open to innovations
243 in traditional food products. However, the preservation of the traditional character of the

244 food was indicated as a requirement for innovations in traditional foods (Kühne et al.,
245 2010).

246 In the study by Hersleth et al. (2011) was evaluated the consumers' acceptance of
247 innovative dry-cured hams, namely regarding the impact of reduced salt content, prolonged
248 aging time and new origin. The results allowed identifying two consumer clusters. While
249 some were more open to trying new kinds of food and this resulted in a higher acceptance
250 of dry-cured ham with reduced salt level, long aging and different origin, other consumers
251 were more sceptical to accept the new variation of the product.

252 In a work by Stolzenbach et al. (2013) that investigated new product development in
253 the case of honeys, it was found that the novel honeys, even though also local, could be
254 too innovative for the consumers, and that the traditional honeys were much more familiar
255 to them, and therefore better accepted.

256 The case of innovation in a traditional pastry was presented by Oliveira et al. (2019),
257 by which a differentiated version of the Portuguese custard tart "Pastel de Nata" was
258 produced and its acceptance was tested through sensory analysis. The acceptability of the
259 innovative product was satisfactory, and its flavour was associated to the traditional Pastel
260 de Nata. Nevertheless, this study did not assess buying intentions or market studies.

261 Fibri and Frøst (2019) conducted a study to evaluate consumer perception of some
262 selected Indonesian traditional foods in their original as well as modernised versions.
263 Seventeen products were tested and the products that were perceived as traditional were
264 those preferred, as opposed to those more modernized.

265 **4. Consumer acceptance of ethnic foods**

266 Today's globalisation, allied to fierce competition, has allowed food companies to
267 expand their markets, either by developing new products to commercialize in domestic
268 markets or by introducing "old" products into different markets, expanding to other
269 countries and even into different continents. Having in mind that the commercial diffusion
270 chains across countries are gaining importance, recently there has been a growing interest

271 of marketers to understand, model and shape these cross-national commercialization
272 patterns (Barrena et al., 2015; Yalcinkaya, 2008).

273 Although consumers nowadays are exposed to a multiplicity of food products with
274 different natures, it is a fact that people's attitudes, perceptions, preferences and values are
275 deeply linked to culture and society, and this can become a disincentive to purchasing
276 products from other cultures or countries, i.e., products with a strong associated ethnicity
277 (Barrena et al., 2015; Yalcinkaya, 2008).

278 Although there are many successful stories in international new product adoption and
279 diffusion, it is also true that, in what concerns food products, the resistance can be greater
280 when compared to other areas, such as technology, for example. It is still very important to
281 deeply understand the key factors that determine success in international new product
282 transactions, and to start paying true attention to the fact that consumers tend to shape their
283 behaviour according to the society in which they are inserted. Particularly, in different
284 countries and typically countries located in different parts of the globe, consumers have
285 different purchasing behaviours, and that is why the same strategies for marketing and
286 commercialization may not work effectively in distinct countries. Hence, some adjustments
287 may be necessary to make the marketing systems to work in differentiated societies.
288 Although consumers across countries differ, there are adequate means to determine those
289 dissimilarities, and this type of knowledge shall be used to adapt the marketing strategies
290 to those differences. If companies naively think that globalization means that consumers
291 around the world will automatically accept the same or similar products, and maintain the
292 business strategies operating in the same way, they may incur in a very serious risk of
293 failure to conquer the global markets. While it is a fact that individuals share common
294 features of humanity, there are crucial cultural differences that must be taken into account
295 when operating internationally. Culture has a deep influence on multiple aspects of
296 behaviour, shaping values, beliefs, preferences and attitudes. Culture shapes the way
297 members of a society share experiences, principles and beliefs. However, cultural
298 boundaries can effectively constitute barriers that hinder the flow of communication and
299 products across cultures. In today's global economy, it is pivotal to evaluate the

300 receptiveness of members of a culture to products and concepts originating from other
301 cultures (Craig et al., 2005; Yalcinkaya et al., 2007).

302 The impact of cultural factors is very much variable depending on the product, since
303 some products are more easily embedded than others. Areas such as technology, power
304 tools or construction equipment have a low if not even null degree of cultural connotations.
305 However, food, clothes or artistic works or forms of expression can be strongly embedded
306 in a particular culture, resulting in marked differences across cultures. How people accept
307 or reject products from other cultures will very much depend on their compatibility with
308 the values and beliefs of that culture. On the other hand, there are some situations in which
309 people in a particular culture may want to imitate the lifestyle and behaviour patterns of
310 another culture. Hence, they may look for products that symbolize and provide a clear
311 expression of the culture that is being mimicked. This shows that each case is a particular
312 case and no rules must be thought to apply to all types of products and all markets. For
313 example, consumers in other countries have embraced cultural icons and material artefacts
314 of American culture, from which some cases can be cited with respect to Food: McDonald's
315 or Coca-Cola. Also Italian icons like pizza or lasagne have easily been implanted into many
316 cultures around the world (Craig et al., 2005).

317 Although it is not easy to actually define “ethnic food”, it is possible to associate some
318 common characteristics of this group of food products, that include: a) Origin – these are
319 foods linked to a particular product, ethnic group, or in a delimited area; b) Consumption
320 – usually the consumption of ethnic products is associated with cultural aspects and/or
321 occasions; c) Characteristics of the product itself – these are particular and are perceived
322 differently by consumers (Barrena et al., 2015; Calantone et al., 2006; Camarena &
323 Sanjuán, 2008; Sheth, 2006; Triandis, 2006).

324 Social identity is determinant for consumers' new product acceptance, which implies
325 that product managers have to consider adapting the strategies to meet the criteria of
326 different cultures, if they want to conquer a suitable share of the market with their new
327 products (Barrena et al., 2015; Bartels & Reinders, 2010). Techniques based on the means–
328 end chain (MEC) theory are useful to model these global market associations. The MEC

329 theory postulates that it is possible to establish the links between the product's attributes,
330 the benefits they symbolise and the values consumers hope to obtain from them. This MEC
331 approach has been used on the case of ethnic foods by Barrena et al. (2015), and the authors
332 intended to determine if ethnic origin influenced the cognitive structure, i.e., the personal
333 values that consumers look for when making a purchase decision. The hierarchical value
334 maps obtained indicate that there was a strong emotional dimension attached to the
335 purchase and consumption of the tested ethnic product, which was couscous. Furthermore,
336 they observed some cultural variation: while Arab consumers attributed more importance
337 to issues such as the geographic origin of the product, cultural identification and fulfilment
338 of family duty, the Spanish consumers, tended to follow the latest trends as a means to be
339 more cosmopolitan and more successful within their environments (Barrena et al., 2015).

340 **5. Final considerations**

341 Society's identity includes also aspects related with traditional foods, apart from other
342 facets of culture and heritage. Presently, the food market is increasingly shaped on the
343 nutritional value of foods and how food products can bear health enhancing properties.
344 Hence, consumer behaviour is changing towards attributing an added value to healthy
345 products. Although in some cases the traditional foods are associated with increased health
346 benefits, like it happens for example with the Mediterranean diet, the truth is that many of
347 the traditional products have high concentrations of less healthy components, such as fat,
348 salt or sugars. Hence, a key threat for the future of traditional foods is the possible
349 insufficient degree of adaptation to the new requirements demanded by the consumers. The
350 food industry seeks to meet these challenges, but this encounters the difficult borderline
351 between tradition and innovation. The concept of tradition or traditional food is, by
352 principle, antagonist of innovation. Because of this duality, it is particularly difficult to
353 develop innovations with a good consumer acceptance within the category of innovation
354 in traditional products.

355 **6. Acknowledgments**

356 This work is funded by National Funds through the FCT - Foundation for Science and
357 Technology, I.P., within the scope of the project Ref^a UIDB/00681/2020. Furthermore, we
358 would like to thank the CERNAS Research Centre and the Polytechnic Institute of Viseu
359 for their support.

360 Thanks to Project reference POCI-01-0145-FEDER-029305, co-financed by the
361 Foundation for Science and Technology (FCT) and the European Regional Development
362 Fund (ERDF), through Portugal 2020 - Competitiveness and Internationalization
363 Operational Program (POCI).

364 **7. Declaration of Interest**

365 The authors declare that there is no conflict of interest.

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