Chapter 077

**From knowledge to consumption: how consumers perceive of the food quality**

**Abstract.** Italy is a country of great local customs and traditions, each region has peculiar typical characteristics, which determine different qualitative, sensorial and organoleptic attributes in food products. This allows to promote the growth of POD and PGI certified brands, transforming it into an important production area of “made in Italy” food excellence. The quality of food is linked to the sustainability of the agri-food system, a term increasingly used in various strategic documents, policies and development plans at the international, national and local level. These include the United Nations (UN) “Agenda 2030” and, within the European Union (EU), the Common Agricultural Policy (CAP), the Green Deal and the European “Farm to Fork” strategy.

These community policies also represent the attention and the acquisition of greater awareness on the part of the consumer, who wants to be informed about the origin of raw materials and about the nutritional composition of a product.

This work investigates the behavior of Italian consumers towards certificated products. The results of a questionnaire on the perception of product labeling by consumers, will be proposed.

**Keywords.** PDO/PGI certification, Consumers perception, Sustainability, Survey

# Introduction

The term “Food *quality*” is widely defined by different regulations and control systems, but from the consumer's point of view, it is not so simple to define. It is linked to various components: organoleptic (flavor, texture, visual aspect), nutritional (composition and energetic value), commercial (price and profit), technological (attitude to transformation) and hygienic-sanitary (healthiness). The common thought associates the quality product at traditional product, that does not have specificity; while for *typical product*, we mean the outcome of a historical and localized process, based on a combination of territorial and anthropic resources, which have a strong link with the cultural tradition and the territory of origin, which come from geographical areas, whit specific raw materials and treatment process. The elements that distinguish it, are its enhancement and competitiveness on the market. The protection of geographical indications is one of the main tools used as a distinctive sign between product and territory, and between diversity in the market. By regulation, we have defined two main key labels of product quality: Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI). PDOs are products essentially due to a particular geographical environment (intrinsic natural and human factors) and whose production phases all take place in the defined geographical area, while PGI products are essentially attributable to its geographical origin, and which have at least one of the production stages in the defined geographical area (Sampalean et al., 2021). For these reasons, the PDO and PGI marks represent the compliance and compatibility requirements for a product of origin to be recognized as a food good and facilitates its access on market areas. The general objectives of EU action concern the transition of the European agri-food sector towards a model of sustainable production and consumption, it should be economically viable, provide equitable benefits to society and have minimal environmental impact. This objective is consistent with the results of several studies that link sustainability and healthy eating through the concept of food system, recalled by the European strategy “Farm to Fork”. Sustainable food systems emphasize the role of eating styles as fundamental links between food, human health and nutritional benefits.

In according to the ISMEA report, the economy based on the supply chain of branded products, provided a contribution of 19% to the total sales in the agri-food sector. PDO and PGI brands represent 27% of the “Made in Italy” in the world, with an export growth of 5.1%. It is evident that in recent years the awareness, perception, knowledge and consumption of agri-food products marked by quality brands has increased among consumers. At the same time, consumer acceptance of the certified product has grown, which has been recognized as a key success factor determining product development, orientation and market opportunities. Singh (2019) reported that "attitude" is a learned predisposition to respond with respect to a certain object (Maxim, 2019). Schifferstein et al. (2001), reported that there are various factors that contribute to the formation of attitudes, which can be classified into consumer attributes and product attributes, such as: direct observation, indirect knowledge, positive or negative opinion formed by different variables such as personality, values , risk perception, age, education, sociocultural position, culture, nationality, media exposure to information and social support *(*Fishbein and Ajzen, 2011; Singh et al., 2019).

In this study we tried to define the relationship between eating habits and PDO and PGI branded products to investigate the consumers’ awareness, knowledge of geographic brand product and interest for Italian certification food and for their consumption.

# Material and methods

# *The survey*

The survey aimed to examine the Italian quality certifications through the compilation of an anonymous questionnaire to understand if they are recognized by consumers, to understand how them perceive quality, what degree of judgment is attributed to them, and to know their awareness at the time of purchase. The questionnaire consisting of 20 multiple choice questions distributed in virtual form, whit a system of instantaneous messages multy-platform, allows a descriptive analysis of the attention towards food-certified products, and an evaluation of their performance on the market, based on the choices of customers.The study was conducted on 203 respondents, all were adults, come from urban area, with different levels of education, in fact in according to whit Maxim et al (2019), the interest of consumers for certificate products, is influenced by factors such as gender, age, education, and geographic origin.

Data were collected between 2021 and 2022, and all the answers were centralized by the research team. The data collection questionnaire was made up of four sections and was based on 4 main aspects: the food safety and human health, know the meaning of certification, quality, and the buying trend. The first section asked about socio- demographic characteristics including sex, age, educational level, environment of origin; the second section comprised questions about the understanding of the PDO and IGP brands; the third aspect that we have considerate is the security to understand what role it plays in consumer choices, and the last section regard about rapport between price and quality, and the influence on purchasing choices.

* 1. ***Statistical analysis***

To provide statistical meaning to the data collected, we applied analysis of variance (ANOVA) to assess whether qualitative factors play a significant role in food purchase decisions. A multi-comparison between factors’ means was performed by a Least Significant Difference (LSD) test.

# Results and Discussions

# *3.1 Demographic Analysis of the Respondents*

The aim of this questionnaire was to know the opinion of consumers on quality of certificated products, confidence about the safe-food and knowledge about them. The initial phase of the survey allowed the start - up methodology for an effective interpretation of the results in according to the importance attached to certain factors (age, occupation, education level, etc.). Two hundred and three people participated to this study: 43,3% were male and 56,7% were female. Participants ranged in age from 18 to over 60: the group 40-49 (12,8%), followed by the group under 20 years old (only 7%) are the lowest representatives, these numbers and percentages are like those reported by Maxim et al., (2019) and Sampalean et al., (2021).

Table 1. Socio- demographic characteristics

|  |  |  |
| --- | --- | --- |
| **Total number: 203** | | **%** |
| **Age** |  |  |
| Under 20 | 7 | 3,4 |
| 20-29 | 64 | 31,5 |
| 30-39 | 38 | 18,8 |
| 40-49 | 26 | 12,8 |
| 50-59 | 31 | 15,3 |
| Over 60 | 37 | 18,2 |
| **Education** |  |  |
| High | 138 | 68 |
| Middle | 57 | 28,1 |
| Lower | 8 | 3,9 |
| **Gender** |  |  |
| Female | 115 | 56,7 |
| Male | 88 | 43,3 |
| **Area** |  |  |
| North | 22 | 10,8 |
| Center | 25 | 12,3 |
| South | 25 | 12,4 |
| Lazio Region | 131 | 64,5 |

Most of the consumers (68%) have higher education (degree, bachelor and postgraduate studies), some students attend a university course (9,9%). All participants come from the urban environment, from all Italian region, the most representative are Lazio, Umbria and Campania (Tab.1).

***3.2 Knowledge of European quality certifications***

In the second section of the questionnaire, consumers were shown the EU quality logos, PDO, PGI and organic farming logos and asked to select the ones they were familiar with. The results indicated that the most familiar logo was the PDO logo, selected by 92%of respondents, followed by the PGI logo (81%). These findings were higher than those reported in a study by Sampalean et al (2021), where the results indicated that the logo people were more aware of was the PGI, selected by 82% of respondents, followed by the PDO (76%) and the organic logo (68%). Regarding knowledge of the PDO and PGI logos, participants were asked if they knew the meaning of the different certified products. The total number of participants in this study confirmed that they knew their meaning and difference: when asked "Do PGI/PODs mean the same to you?", 87.6% answered "No." For both statements that defined the PDO’s out of all respondents 42% were able to identify correctly the one that refers to “the production steps of which all take place in the defined geographical area” and 43% “whose quality or characteristics are essentially or exclusively due to a particular geographical environment with its inherent natural and human factors”.

* 1. ***Perception, attitudes towards quality food products and purchasing habits***

The results reporting respondents' opinions regarding the food safety of EU quality certified products are detailed in Figures 1a, 1b. Food safety was used in this section as a tool to study consumers' knowledge of EU quality certifications, as these products are believed to have a higher level of food safety. Well, when asked, nearly 90 percent of respondents believed that the certified product was safer, while 10.4 percent did not consider it to be safer than an unmarked product. To assess the relationship between safety and certification, two questions were asked, the first with a yes/no answer asking whether a certified product is considered safer than one without certification, and, in the second question, to indicate a value from 1 to 10. 77.2 percent of the population gave a rating of 8 to 10, less than 20 percent between 5 and 7, and only 3 percent a value below 5.

Thus, the relationship between quality and safety was assessed by directly questioning respondents about the perceived interrelationship. For most consumers, quality and safety are clearly related and they pay close attention to safety and health control requirements, which are at the top of the rating scale (75%), followed by PDO/PGI certification (55%) and nutritional value (30%) Indeed, possible contamination is a concern, which is why we focus on safe and wholesome foods, membership and possession of a certified label is synonymous with food safety and can ensure protection and quality.

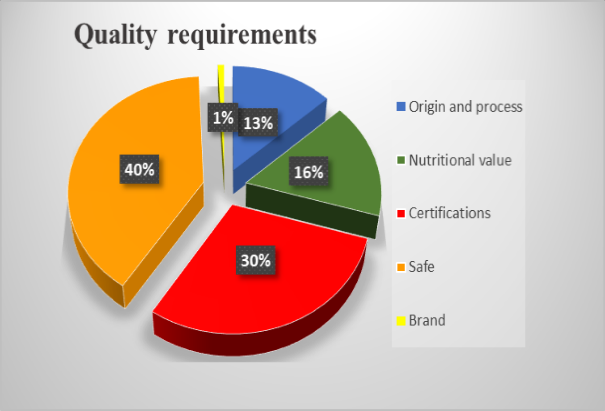
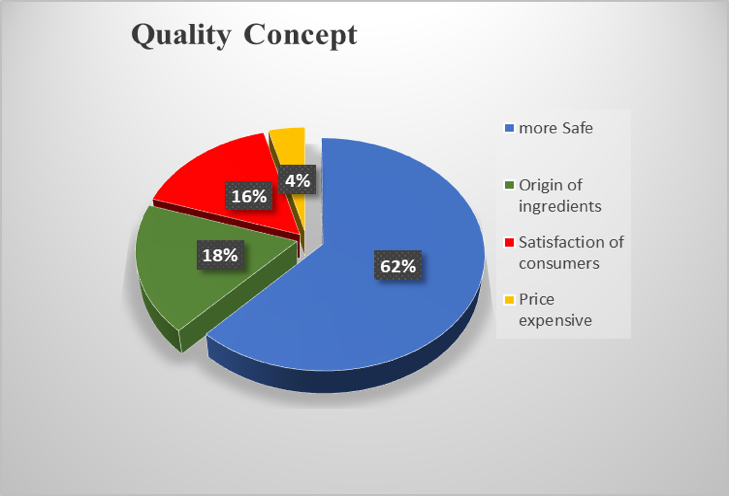
 

Fig 1a. Answers to the question “What Fig 1b: Answers to the question “Which one is associated to the mean quality” the important factor to define quality”

Question was therefore proposed to better understand the purchase choice, or if the certification acquires an important requirement in the choice of the product. We have evaluated, whit the next step, how much the price of the certified product can influence the consumer; if on the one hand 8.4% answered no, for about 35% certification is important but could do without it, a portion of over 56% remains, so certification takes on an important significance at the time of purchase. In according to the data collected, the most reasonable purchase price they would be willing to pay is less than 5 €, for 43.9% of the population, 29.9 under 10 €, 19.5 is divided between 10-20 €, and only 6.7% over 20 €. These findings are confirmed in other work where consumers give second priority to the price of products and always seek certified foods. (Batra et al., 2000; Zander et al., 2018; Thøgersen et al. 2019) They believe that the price of PGD/PGI foods becomes the cost of investing in "good health" (Aryal, 2009, Sandalidou et.al, 2002; Geeroms et al, 2008). The study findings further showed that despite of having higher price compared to conventional alternatives, many consumers continue to buy certified products.

An analysis of variance (ANOVA) was used to assess the statistically significant differences between the Consumers’ perception about the price and qualitative variables. A multi-comparison between factors’ means was performed by a Least Significant Difference (LSD) test. For the Consumers’ perception about the price of organic products results, the parameters presented statistically significant differences categories (p<0.05).

**4. Conclusions and future perspectives**

Italy is one of the European countries that has always supported policies of recognition and institutionalization of geographical denominations. This study highlights how Italian food production is based on a great agro-biodiversity and on socio-cultural knowledge and traditions, which must be protected. This survey made it possible to understand the presence of key factors that guide choices and promote consumer confidence: socio-demographic characteristics (age, level of education), economic factors, indices of provenance, etc. Indeed, the questionnaire revealed that the questions were well designed for the participants and provided clear and useful information. Of course, a limitation of our study is that the sample is not statistically representative of the Italian population and appears biased towards relatively younger and highly educated buyers and consumers, albeit in agreement with others research. The data collected showed that consumers are increasingly attentive to labels, nutritional values, geographical origins and information on traceability. The interest and awareness of certified foods has grown, as evidenced by the high percentage of knowledge, perceived as healthier and safer than conventional alternatives. It emerges that the guarantee of product safety and quality strengthens consumer confidence. Therefore, it is necessary to conduct further research with a larger and more representative sample, to extend and generalize the results to represent the national population, through the development and improvement of methods that better capture the real behavior of consumers in different experimental contexts.

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