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MASTER COURSE IN: FOOD AND BEVERAGE INNOVATION AND MANAGEMENT

CONSUMERS' PERCEPTION AND INTEREST FOR MOUNTAIN FOOD PRODUCTS: AN EXPLORATORY STUDY

THESIS TYPE: Experimental

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To my family, especially my mom and to all those
who have believed and supported me.
Thanks for always being there.

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ACRONYMS AND ABBREVIATIONS

AMA	The Austrian Federal Marketing Agency
CAP	Common Agricultural Policy
EC	European Commission
EU	European Union
FCQ	Food Choice Questionnaire
FIC	Food Information to Consumer Regulation
GI	Geographical Indication
LFA	Less Favoured Area
MFP	Mountain Food Product
MS	Member States
OQT	Optional Quality Term
PDM	Prodotto di Montagna
PDO	Protected Designation of Origin
PGI	Protected Geographical Identification
QAS	Quality Assurance and Certification Schemes
TFP	Traditional Food Product
TSG	Traditional Specialty Guaranteed
UAA	Utilised Agricultural Area
WHO	World Health Organization
WTP	Willing to pay

INTRODUCTION AND THESIS PURPOSE

Mountain areas represent almost half of Europe, therefore, those areas are vital for both European population and farmers. Unfortunately, some of these mountainous areas are not suitable for living and agricultural activities, and so the number of abandoned areas is quite high. It is also possible to categorise mountain areas according to the distribution of favoured and less favoured areas by including other important factors such as slope and altitude. Most of the agricultural actions take place in favoured areas by using natural sources of the mountain. Mountain products are the main goods that are produced and processed in mountainous areas with particular characteristics related to the production area. Up to 2012, mountain products were partially included under the European quality schemes such as PDO and PGI. This situation was creating a problem for both producers and consumers.-From the point of view of producers, they could not get the added value for their products and they could not receive a reward for their hard work. As far as European consumers, they cannot distinguish between products that are correctly labelled and those that are taking advantage of the positive view of mountains for promotional purposes. To prevent this confusion, a few years ago, European Union adopted Regulation (EU) No. 1151/2012 and the Delegated Act (EU) 665/2014, which include the optional quality term 'Mountain Product' and they aim to protect those special products under a single regulation. In accordance with the new regulation, some Member States were decided to implement it together with their national laws. The main criteria defined by these laws concern the areas of origin of raw materials, the processing and packaging of products.

Literature researches showed that data on this brand new topic are very scarce, especially on the consumers' perception and willingness to pay for mountain products. Looking at the few number of existing studies on consumers' behavior towards mountain food products and the potential of these products on the market there seems to be a gap in research. This study will address this gap and focus on consumer perception and attitudes towards mountain food as well as studying consumer attitudes towards possible new initiatives in the case of the optional quality term "Mountain product"in Italy.

For this reason, the choice of this area of study is due to the fact that Italy, to date, has the highest production rate of mountain products in Europe. In details, the specific objectives of this study are:

* To identify the factors and motivations that influence consumers' attitudes towards mountain products

* To identify consumers' perceived barriers to purchasing mountain food

* To identify consumer trust versus the new label

* To determine the relationship between consumer attitudes and intentions to purchase mountain products

* To identify the consumer willingness to pay for milk labeled with the optional quality term.

The study is based on a research carried out through the use of a questionnaire which was built after a long literature survey, in line with consumers' perception of the European quality schemes like PDO, PGI and TSG. The results of our study could contribute to the literature gap on this specific field.

The research is divided into 4 chapters that cover all the main aspects related to Mountain Food Products, with a special focus on the new optional quality term "Mountain Product".

CHAPTER 1
DEFINITIONS AND CONCEPTS

1.1 Definitions of mountain area

During the years numerous definitions of what constitutes a mountain have been proposed. Mountains are very diverse landforms and there appears to be little consistency in definition, description and analysis. In Europe, the first delineations of mountain area were included in national laws and policies in the Alpine countries of Austria, France, Italy, and Switzerland from the late 1920s to the 1960s. These and other national delineations (Castelein et al. 2006) have all used elevation as a criterion, sometimes in combination with other criteria such as slope and local elevation range (LER) (Table 1-1). For the purposes of applying the laws and policies, these criteria are applied to municipalities: at least a minimum proportion of their area has to meet the criteria to be identified as 'mountain'.

Table 1-1. Criteria for definition of mountain area in EU Member States

Member State	Minimum elevation	**Other criteria**
Austria	700 m	also above 500 m if slope >20%
Belgium	300 m	
France	700 m (generally) 600 m (Vosges) 800 m (Mediterranean)	slope >20% over >80% of area
Germany	700 m	climatic difficulties
Greece	800 m	also 600 m if slope >16%; below 600 m if slope >20%
Ireland	200 m	
Italy	600 m	altitudinal difference > 600 m
Portugal	700 m (north of the Tejo river) 800 m (south of the Tejo river)	slope >25%
Spain	1000 m	slope >20% elevation gain 400 m
UK	240 m	
Cyprus	800 m	also above 500 m if average slope >15%

Poland	350 m	or >12° for >50% of agricultural land in a municipality
Romania	600 m	also on slopes >20°
Slovakia	600 m	also above 500 m on slopes >7°; or average slope >12°
Bulgaria	600m	also >200m altitudinal difference/km²; or slope >12°
Czech Republic	700 m	
Hungary	600 m	also above 400 m if average slope >10%; or average slope >20%
Slovenia	700 m	also above 500 m if more than half the farmland is on slopes of >15%; or slope > 20%

(Source: Gløersen et al., 2004)

In 1975, similar actors and arguments led to the first European Union (EU) legislation that refers to specifically mountain areas as Less Favoured Areas (LFAs), with the aim to provide subsidies to support farmers whose production and competitiveness was limited by so-called 'natural handicaps'. Based on article 3 of the EEC Directive 75/268:

> *1. The less-favoured farming areas, shall include mountain areas, in which farming is necessary to protect the countryside, particularly for reasons of protection against erosion or in order to meet leisure needs; they shall also include other areas where the maintenance of a minimum population or the conservation of the countryside are not assured.*
> *2. These areas must have adequate infrastructures, including access roads to farms, electricity and drinking water and, in tourist and recreation areas, disposal of sewage. Should such amenities be lacking, their provision should be envisaged in the near future in public amenity programmes.*
> *3.Mountain areas shall be made up of local government districts or parts thereof characterized ' by a considerable limitation of the possibilities for using the land and an appreciable increase in the cost of working it, due : — either to the existence, because of the altitude, of very difficult climatic conditions the effect of which is substantially to shorten the growing season, — or, at a lower altitude, to the presence, over the greater part of the district in question, of slopes too steep for the use of machinery or requiring the use of very expensive special equipment, — or to the combination of these two factors, where the handicap resulting from each taken separately is less acute, provided that this combination gives rise to a handicap equivalent to that caused by the situation referred to in the first two indents.*

After the repeal of the first Less Favored Areas Directive, the Regulation (EC) n. 1257/1999 "On the support for rural development from the European agricultural guidance and Guarantee found (EAGGF)" provides a clear definition of the areas disadvantaged in Europe. This regulation defined LFA as an area with natural handicaps, thus most of these areas are

characterized by low-input and low-output farming systems because farmers face physical and socioeconomic constraints. Based on the specific handicaps that affect the farming activity of these territories, the European Union identified three different categories of LFAs:

- Mountain areas (Article 18), defined as those territories where altitude leads to difficult climatic conditions and steep slopes (even at lower altitude) determine the use of high-cost specific machinery. These two conditions (altitude and steep slopes) limit the use of the land and cause an increase in the cost of farming activity;
- Other LFAs (Article 19), which are characterized by low agricultural productivity land, low agricultural income levels and depopulation;
- LFAs affected by specific handicaps (Article 20), which are small areas with specific disadvantages connected with the environment, landscape development or coastal areas and islands where agricultural activity should be conserved in order to maintain the countryside.

This definition is only a framework definition, adapted within the Member States, and is used only for the purpose of allocating these compensatory allowances to mountain farmers. It is to date the only official mountain definition at EU level. Regulation No 1257/1999 specifies the general classification criteria (altitude, steep slopes, or a combination of the two), but does not set minimum values to be observed by the Member States. With increasing subsidiary, it is now up to the national and/or regional authorities to define levels and to classify areas in accordance with the basic Community criteria. The most widespread interpretation of the first two criteria, for practical purposes, by the Member States and/or regions is:

- very difficult climatic conditions can be expected at altitudes over 600-800 meters (for each district or part thereof);
- slopes too steep for the use of machinery or requiring the use of very expensive special equipment are those with a gradient of at least 1 in 5 on average per square kilometre.

It is important to know that this definition is used only within the framework of the rural development policy of the EU (second pillar of the common agricultural policy) in order to identify the mountain agricultural land which can benefit from compensatory allowances.

The rural development policy of the European Union[1] is in continuous evolution, but in the several reforms, there is no change in this framework definition.

LFAs in the EU-9 have increased from 33% of Utilised Agricultural Area (UAA) in 1975 to 47% in 1998 before an apparent drop to 42% in 2005. When more recent additions to the EU-15, such as Greece, Spain and Finland, are taken into account, the figure for 2005 rises to 55%. This increase reflects the relatively large areas of LFA classified in these Member States where natural disadvantage tends to be more severe due to adverse climatic conditions. In comparison, the area of UAA classified as LFA in the 10 new Member States is 52%.

In 2004, the Utilised Agricultural Area (UAA) classified as LFA in the European Union accounted for approximately 91 million hectares, which is equivalent to 54% of the UAA.

- Mountain LFAs (Article 18) represent 28% of the total surface of the LFA;
- Other LFAs (Article 19) represent 66% of the total surface of the LFA;
- Areas affected by specific handicaps (Article 20) represent 5% of the total surface of the LFA;
- Areas subject to environmental restrictions (Article 16) represent 0.8% of the total surface of the LFA.

These averages, however, mask major differences between Member States:

- In 2004, the following Member States were characterised by a high proportion of Mountain LFAs (Article 18): Greece (52%), Italy (71%), Austria (82%) and Slovenia (75%).
- Other Member States concentrate a large majority (more than 85%) of their LFA in 'Other LFAs' (Article 19): Belgium, Estonia, Germany, Ireland, Latvia, Lithuania, Luxembourg, Poland and the UK.
- 100% of the LFA in Denmark, Malta and the Netherlands is classified as Areas affected by Specific Handicaps (Article 20), whereas in only three other Member States – Finland, Slovak Republic and Hungary – do Article 20 areas account formore than 25% of the total LFA area.

[1] To ensure the sustainable development of mountain territory and the farms viability, the Common Agricultural Policy (CAP) has guaranteed payments for farmers who ensure the maintenance of agricultural activity in the marginal territories. In Europe, the CAP is one of the most important policies that guarantees a specific payment for mountain areas, through dedicated measures. Actually, the CAP 2014-2020 support mountain areas through two different tools: a system of direct payments per hectare (first pillar) and a payment to compensate farmers for additional costs and loss of income, resulting from natural handicaps (second pillar).

Based on the current CAP (2014-2020), LFAs are represented in the following Figure 1-1. Today LFAs reaching about 56% of total UAA.

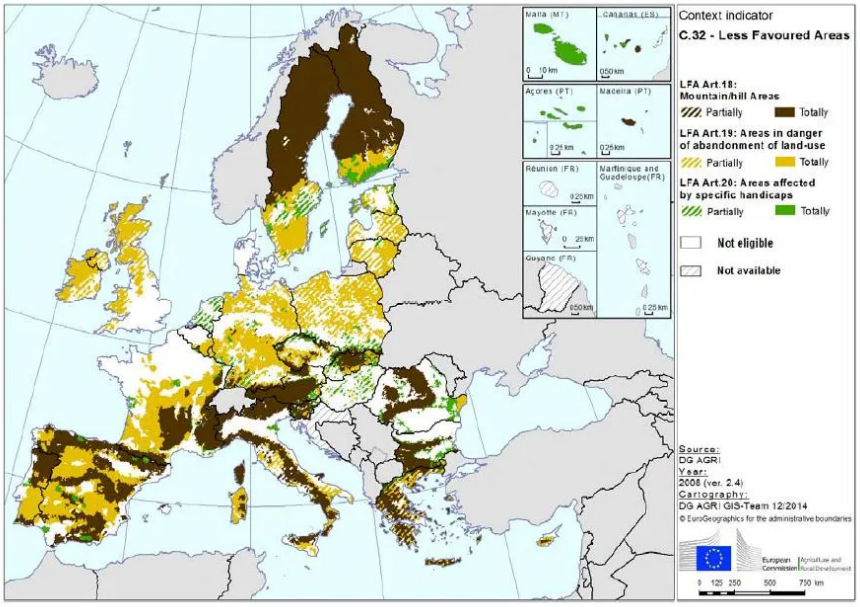

Figure 1-1: Less-Favoured Areas in EU-27 (Source: European Commission, 2014)

1.2 The importance of mountain food production and strategy for the sustainable development

Europe's mountains are of vital importance to the continent's population in many ways and have been described as 'the undervalued ecological backbone of Europe' (EEA, 1999). Throughout the EU, many authors agree that mountain agriculture and inclusive mountain food production plays a central role in the preservation of both biodiversity and natural landscape (Perrot, Derville et al. 2009; Cloye 2010; Hopkins 2011; Penati, Berentsen et al. 2011).

Promoting and developing mountain food production is a way to boost sustainable development, neutralizing the disadvantages of these areas (Tebby et al. 2010). By ensuring the maintenance of economic activity and inciting the preservation of farmers living in mountain areas, it will be possible to contribute to develope these areas, to promote entrepreneurship reducing the unemployment and emigration of young people living in rural areas; also promoting the health and wellbeing of the worldwide population, through consumption of high quality food products from mountain areas, and specifically through provision of ecosystem services that are provided by mountain farming (Gentle & Maraseni,

2012; Prisenk et al., 2016). It is doubtless evident that through inciting the promotion, protection and certification of MFP it will be possible to contribute to local development and to reduce the desertification of these areas (Martins & Ferreira, 2017).

Several countries have already defined, or even started to define specific legislation about this concern, through promoting local initiatives in order to contribute to local development and improvement of MFP visibility (Lhermitte & Levret, 2004). Thus, through the promotion of agricultural activity and the production of raw materials in mountain areas, where unique products are produced, it will be possible to contribute to the creation of better jobs and the development of non-agricultural positions (i.e. agro-tourism) in these areas. In this sense, considering the current demand and production of mountain foods, it is of utmost importance to ensure that these products have high-quality, are characteristic of local areas, and present proper certification and adequate labels (Hadjou, Lamani, & Cheriet, 2013; McMorran et al., 2015).

European quality schemes PDO, PGI and TSG certifications include products originating in mountains area. However, a large part of mountain food is not protected by these certifications and foods not made in mountain areas are often labeled as "mountain food products". For this reason, in order to give the value for the mountain products and to increase their awareness, the European Union enhanced them with the label. Moreover, the scheme for optional quality terms also facilitates the communication within the internal market of the value adding characteristics or attributes of agricultural products by the producers thereof, at the same time that help farmers to overcome natural constraints affecting agricultural production and transformation in mountain areas (European Commission, 2014).

These optional quality terms help farmers to market their products, which are made under difficult natural and transformation conditions (i.e. mountain products and products of the EU's outermost regions) and low economic assurance. Therefore, special quality certifications of foodstuffs of specific areas could counteract the negative effects of globalization and could potentially offer an important economic opportunity (especially in the case of disadvantaged and remote areas), to differentiate products according to different areas and hence, contribute to the development of these areas (van der Ploeg et al., 2000).

Overall, all these aspects and regulatory practices are increasingly conceived as a basis to ensure a continue delivery of MFP, with characteristic high-levels of traceability, environmental quality, biodiversity, landscapes and cultural heritages, at same time that reduces the risk of erosion (McMorran et al., 2015). In fact, the latest studies have evidenced

that these strict standards certification programs provide great benefits for farmers and incite more extensive agricultural practices. For example, PDO farmers obtain higher price and premium products than PGI farmers, at same time that they gain more knowledge, present more extensive practices and have slightly more motivations for labeling their products (Lamarque & Lambin, 2015).

CHAPTER 2
THE EUROPEAN POLICY FOR FOOD QUALITY AGRICULTURAL PRODUCTS

2.1 Quality concept

In the literature, two main approaches are taken to define food quality: the holistic approach and the excellence approach (Grunert, 2005). The holistic approach includes within the concept of food quality "all the desirable characteristics a product is perceived to have". By contrast, the excellence approach views food quality as referring only to characteristics that pertain to a higher, more restrictive or "superior" specification of the product. The holistic approach is adopted to cover the whole range of quality assurance schemes currently existing (European Communities, 2006a). The holistic approach leaves wide scope for interpretation: quality can mean conforming to standards (including standards pertaining to the environment, local specialities, organic production, ethics, and even taste and smell) and it can refer to subjectively perceived quality attributes. Quality is also a factor that involves the entire production process, from raw materials, processing and packaging up to consumption of the product. As the idea of quality is continuously evolving, any attempts to classify it are immediately overtaken by events, as new meanings are added to existing ideas without replacing them (European Communities, 2006a).

In the past quality was mainly a question of "musts", whereas nowadays it also includes a large proportion of "wants". Food product attributes can be grouped into search attributes, experience attributes and credence attributes:

- "Search attributes" are characteristics that can be identified and recognised from the outside before choosing the product (look, price, variety, etc.).
- "Experience attributes" are characteristics which are not directly perceivable when the product is chosen, but become so when it is consumed (tasty, solid, easy/quick to prepare, etc.) and prompt users to decide whether or not they will consume that product again.
- "Credence attributes" are characteristics which are not perceivable when the product is purchased or consumed, and which users cannot personally and directly assess. For this group of attributes the trust required of users becomes fundamental, as does the role of

information to bridge this sort of “knowledge gap” on the part of consumers. The credence attributes category includes all the characteristics related to places and methods of production, use of certain substances and, in a broad sense, the level of safety associated with the product.

The objectively analysable characteristics of a product need to be compared alongside the non-objective assessments, which play a large part in consumer preferences.In practice, consumers largely evaluate quality through their perceptions, which are filtered and weighted by a scale of preferences which lead them to make choices. Some of the most important factors leading consumers to choose are credence attributes, mainly involving the production process. The consumer is the beneficiary of food products and as such the final link in the food chain. In the past she/he was a “passive user” of quality from a third party.

Nowadays the consumer is increasingly pro-active. Alongside this trend, new lifestyles and the development of coherent patterns of consumption mean that consumers are no longer satisfied with standard food supply. Consumers look for different types of quality, such as brands, specialty and local origin, quality systems, environment-friendly and organic as well as ethical products, etc. Depending on tastes and preferences, consumers assign different values to different types of quality and are willing to pay for them proportionally. The multiple aspects of quality and the intangible nature of credence attributes mean that there has to be adequate protection and that the terms and rules for communicating differentiation need to be transparent (European Communities, 2006a).

The European Union is marked by different traditions, wealth and socio-economic systems. This wide range of people make the perception of food quality complex and varied. Eurobarometer conducted a survey (European Communities, 2006b) in the 25 Member States of the European Union to collect information on “food quality perception” by EU citizens.

In conclusion, quality attributes valued by consumers are varied and will change over time. It is therefore not possible to come up with a definition of quality that suits all people, everywhere, at all times. It is, however, possible to offer choices and to ensure that consumers can identify the desired quality characteristics in the product that they are buying.

In this context, guaranteeing the stated quality characteristics is the main role of Quality Assurance and Certification Schemes (QAS). QAS can generally be defined as any code of practice, standard or set of requisites, which enables stakeholders of the food supply chain to guarantee compliance with what is declared and to signal this to the end or next user, underlying this statement there is some independent verification process that adds authority

to the stakeholders' statement. For the purpose of this report, QAS are schemes implying a voluntary participation and enabling stakeholders involved in the food chain to claim that products or processes fulfil defined quality requirements. This definition of QAS includes two categories of schemes. The first is a category of schemes known as "quality management systems" or "within-chain standards", of which the consumer may hardly be aware at the point of final food purchase. The second category of schemes covers those food QAS that explicitly aim to segment the final product market by differentiating the product(s) covered under the scheme, using labelling or branding to signal specific quality attributes to consumers.The first food QAS created in Europe were Italy's "Consorzio del Grana Tipico" (1934) for the protection of "Parmigiano-Reggiano" cheese and the French "Appellation d'Origine Contrôlée" (1935) for the protection of wine and, later, cheese. During the 1990s, the ISO 9000 (third party audit) was introduced with the objective of establishing one general standard for all industrial sectors. In 1992 the European Union (EU) created the PDO (Protected Designation of Origin), PGI (Protected Geographical Indication) and TSG (Traditional Speciality Guaranteed) schemes to promote and protect specific food products.

2.2 The Evolution of European Food Quality Policy from 1992 to date

The reform of agricultural policy in 1992 shifted the focus of the European Union (EU) agricultural policy from price support to rural development, from the so called first pillar of the Common Agricultural Policy (CAP) to the second pillar. Furthermore, the policy focus shifted from increasing food quantity towards increasing food quality (Becker, T. C. 2009). Three regulations were adopted in 1991 and 1992, namely Regulation (EEC) No. 2081/92 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs, Regulation (EEC) No. 2082/92 on certificates of specific character for agricultural products and foodstuffs, and Regulation (EEC) No. 2092/91 on organic production of agricultural products.

The objective of Regulation (EEC) No. 2081/92 is the protection of geographical indications as names for food products. The aim of regulation (EEC) No. 2082/92 is the protection of traditional recipes for food products, and the objective of Regulation (EEC) No. 2092/91 is to explicitly define the objectives, principles and rules applicable to organic production.

These three regulations are the cornerstones of EU agriculture and food quality policy. Products protected by these EU quality schemes have a privileged position, not only with respect to the legal protection, but also with respect to EU financial aid and the eligibility of Member State financial aid for the promotion of these products (Becker and Benner, 2000).

Since the foundation of the CAP, the Member States have made efforts to support the promotion of national agricultural products through state aid.

However, state aid might not be in accordance with the objectives of the Treaty of Rome. Two cases have been brought by the European Commission to the European Court of Justice, and it was concluded that state aid for promoting and advertising national food products through the means of stressing the national origin is against the Treaty. The general prohibition on state aid contained in Article 87 of the Treaty is applicable if the publicly funded promotion and advertising distorts or threatens to distort competition by favouring certain undertakings, or the production of certain goods. Where such publicly funded promotion activities refer to the national or regional origin of the products concerned, it clearly favours certain products and therefore Article 87 may apply. As a reaction to these two cases, the European Commission laid down Community guidelines for state aid to the agricultural sector in 1986. For the "Community guidelines for State aid for advertising of products listed in Annex I to the EC Treaty and of certain non-Annex I products (2001/C 252/03)" holds. In these guidelines the distinction is made between negative and positive criteria. National aid for promotion and advertising campaigns infringing on Article 28 of the Treaty, which prohibits quantitative restrictions on imports and all measures having equivalent effects between Member States, cannot in any circumstances be considered compatible with the common market within the meaning of Article 87 of the Treaty. However, the situation is regarded as different in the case of products which can be clearly distinguished from other products that fall within the same category through specific characteristics concerning the raw materials used, the composition of the finished products, or the production and processing methods used. This is regarded as being the case for products covered by Council Regulation (EEC) No. 2081/92 and Regulation (EEC) No. 2082/92, and for products covered by Council Regulation (EEC) No. 2092/91 (European Commission 2001).

Regulation (EEC) No. 2081/92 distinguishes between two categories of protected names: designations of origin, and geographical indications. The distinction between the two categories depends on how closely the product is linked to the specific geographical area whose name it bears.

The regulation does not apply to wine sector products, except wine vinegars, or to spirit drinks. The protection of geographical indications for wine products is regulated in Regulation (EC) No. 1493/1999 on the common organisation of the market in wine. To be eligible to use a protected designation of origin (PDO), a product must meet two conditions:

• The quality or characteristics of the product must be essentially or exclusively due to the particular geographical environment of the place of origin, where the geographical environment is understood to include inherent natural and human factors, such as climate, soil quality, and local know how.

• The production and processing of the raw materials, up to the stage of the finished product, must take place in the defined geographical area whose name the product bears. There must therefore be an objective and very close link between the features of the product and its geographical origin.

The protected geographical indication (PGI) also designates products attached to the region whose name they bear, but the link is of a different nature than that existing between a product with a PDO and its geographical area or origin. To be eligible to use a protected geographical indication a product must meet two conditions:

• It must have been produced in the geographical area whose name it bears. Unlike the protected designation of origin, it is sufficient that one of the stages of production has taken place in the defined area. For example, the raw materials used in production may come from another region.

• There must also be a link between the product and the area which gives it its name. However, this feature need not be, as in the case of the protected designation of origin, essential or exclusive, rather it allows a more flexible objective link. It is sufficient that a specific quality, reputation, or other characteristic be attributable to the geographical origin. Under the rules for protected geographical indications, the link may consist simply of the reputation of the product, if it owes its reputation to its geographical origin. In this case, the actual characteristics of the product are not the determining factor for registration; it is enough for the name of the product to enjoy an individual reputation that is based specifically on its origin at the time the application for registration is lodged.

A much less used system is the one for traditional specialities offered with the Regulation (EEC) No. 2082/92 traditional specialities guaranteed (TSG). The purpose of this regulation is to take advantage of the typical features of products by granting a certificate of specific character. The regulation thus lays down two conditions for registration of a product name: the product must possess features that distinguish it from other products, and it must be a traditional product.

In June 1991 the Council adopted Regulation (EEC) No. 2092/91 on organic production of agricultural products, and indications referring thereto on agricultural products and foodstuffs. In adopting Regulation (EEC) No. 2092/91, the Council created a Community

framework defining in detail the requirements for agricultural products or foodstuffs that bear a reference to organic production methods. These rules are quite complex; not only do they define a method of agricultural production for crops and livestock, they also regulate the labelling, processing, inspection, and marketing of organic products within the Community, and the import of organic products from non-member countries. The Regulation has been added to on several occasions, in particular in 1999, when the Council extended its scope to cover organic livestock production. The rules were introduced as part of the reform of the CAP, which by the late 1980s had broadly achieved its original aim of generating agricultural productivity gains, so as to make the European Community largely self-sufficient in regards to its food supply. The policy therefore shifted towards other aims, not only to rural development and to the promotion of quality products, but also to the integration of environmental conservation into agriculture. These objectives involved major development potential for the organic farming sector, which had previously always been marginal. If a product satisfies the requirements set out under Regulation (EEC) No. 2092/91, the Community organic production logo may be used in the labelling, presentation, and advertising of the product.

Organic production is regarded as an overall system of farm management and food production that combines best environmental practices, a high level of biodiversity, the preservation of natural resources, the application of high animal welfare standards, and a production method in line with the preference of certain consumers for products produced using natural substances and processes.

The organic production method is regarded as playing a dual societal role, where it on the one hand provides for a specific market, responding to a consumer demand for quality products, and on the other hand, delivers public goods contributing to the protection of the environment and animal welfare, as well as to rural development.

These three regulations are at the forefront of European quality policy. It is hoped that they will help promote rural development, the production of diversified products, and increase the competitiveness of products identifiable by quality labels, thus ensuring their protection. However, Community legislation merely defines a framework, an instrument which producers may or may not use, where much of the responsibility is placed on the Member States and producers (European Commision, 2004). Australia and the United States have brought complaints to the World Trade Organization (WTO) against the European Communities protection of trademarks and geographical indications for agricultural products and foodstuffs (DS174 and DS290, respectively). In 2006, Council Regulation (EC) No.

509/2006 replaced Regulation (EEC) No. 2082/92, and Council Regulation (EC) No. 510/2006 replaced Regulation (EEC) No. 2081/92. In 2007 Council Regulation (EC) No. 834/2007 repealed Regulation (EEC) No. 2092/91.

If a product is registered as a PDO, PGI or TSG, the name of the product is protected against use by other producers that not located in the geographic area. We can distinguish (Becker, 2000) between statements of a certain generic nature (e.g. Emmentaler), explicit statements of geographical origin (e.g. from Bavaria), privately owned trademarks with names similar to a geographical area (e.g. Capri), privately owned trademarks where name and origin are linked together (e.g. Warsteiner), collectively owned trademarks with reference to the region, EU protected collectively owned trademarks with reference to the region and weak links between product quality and geographical origin (PGI), and EU protected collectively owned trademarks with reference to the region and strong links between product quality and geographical origin (PDO). The benefit for farmers of products registered as either a PDO, PGI or TSG, is the exclusive right for use of the product name. If a product is registered, the legal protection of the name is much higher than the protection for brand names. The name is protected not only from unfair competition, but also the mere use of the name in any other commercial context is forbidden. It is even forbidden for another product to claim that this product is produced according to the recipe of the protected product, even if this is the case. The rationale behind the granting of this very high level of legal protection to the names of registered products is the effort to contribute to rural development by erecting through law a kind of "geographical name monopoly".

But the geographical name monopoly alone will not lead to a monopoly on profits unless it is accompanied by a corresponding product quality which differs from comparable products. In the case of the products protected by the EU system, the product specification is determined by the producer consortium registering the product, while the product specification for organic products is determined in the respective EU regulation.

2.3 The Regulation (EU) No 1151/2012 on Quality Schemes for Agricultural Products and Foodstuffs

Regulation (EU) No 1151/2012 of the European Parliament and of the Council on Quality Schemes for Agricultural Products and Foodstuffs entered into force on 03 January 2013. The aims of the Regulation (EU) No 1151/2012 are to realize agricultural and rural development, to protect intellectual property, to protect internal market's integrity and to provide right information on products linked to geographical origin. The Regulation does not

only contain articles about geographical indications and designation of origins but also about traditional specialities guranteed and optional quality terms.

The objective of this regulation is to create one single legal instrument to protect and promote the quality of agricultural foodstuffs with different schemes, and provides a simpler, safer and more efficient system for the protection of these schemes. Regulation includes details on official controls, generic terms and symbols, the benefits for producer groups, the provisions for registering PDO and PGI.

The new Regulation empowers the European Commission to adopt implementing acts setting derogations to the general principles of the new Regulation in order to take into account the specificities of the different sectors involved. Regulation sets out the procedural details, comes with attached list of agricultural products intended for human consumption, which supplements the Annex I to the Treaty on the Functioning of the European Union, it is mandatory and directly applicable in all Member States. In details, for what concerns PDOs and PGIs the new Regulation, remains largely unchanged, compared to the previous Regulation no. 510/06, but it introduces a series of new legislative aspect, which include:

- reduction in the registration time procedure (from six to three months);
- rules on controls more comprehensive and detailed;
- the opportunity for third countries products to be included into geografical indication (GIs) register, only if there is an International Agreement between EU and contracting party. This is also valid for other types of labelled products not cited in the previous Regulation;
- the obligation to apply PDO and PGI logos for products of EU origin, but only after a period of transition;
- the protection against usurpation, imitation or evocation also extended to the use of the name as an ingredient;
- the provision whereby Member States must adopt specific measures to avoid the improper use of PDOs and PGIs.

Relating to TSGs, the new Regulation defines a minimum period of 30 years on the market is required for the use of this term (instead of 25).

With a view to clarifying the content of the Quality Regulation, the Commission adopted three legal acts:

1. Delegated Regulation No 664/2014;
2. Delegated Regulation No 665/2014;
3. Regulation No 668/2014

2.3.1 Geographical Indications: PDO and PGI

Protected Designation of Origin (PDO) (Figure 4-1) covers agricultural products and foodstuffs which are produced, processed and prepared in a given geographical area using recognised know how. Whose quality or characteristics are essentially or exclusively due to particular geographical environment, including natural and human factors. Every part of the production, processing and preparation process must take place in the specific region. For wines, this means that the grapes have to come exclusively from the geographical area where the wine is made. It is a mark attributed by the European Union to those quality characteristics that are closely interdependent with the geographical area where the entire production process takes place. In order to obtain the PDO certification, it is necessary to carry out a very detailed procedure, which it has to comply with a product specification and the submission of an application for registration by an association to the Member State of competence.

Figure 2-1: PDO logo

Protected Geographical Indication (PGI) (Figure 2-1) covers agricultural products and foodstuffs for which a certain quality, reputation, or other characteristic are closely linked to the geographical area and the production, processing and/or production of that characteristic takes place in a specific geographical area. At least one of the stages of production, processing or preparation takes place in the area. For most products, at least one of the stages of production, processing or preparation takes place in the region. In the case of wine, this means that at least 85% of the grapes used have to come exclusively from the geographical area where the wine is actually made. PGI producers must comply with the strict production rules provided for by the production specification, and a specific control body guarantees compliance with these rules. It differs from the DOP, to be more permissive on the origin of raw materials. In fact, this brand has the objective of protecting recipes and some typical production processes of the place but not necessarily the origin of the product as a whole, except that of the final production. This is sometimes granted mainly because the local or

national production of raw materials for this purpose may not be sufficient to satisfy the global demand for the product, or because some ingredients of foreign origin are considered more suitable for their specific organoleptic characteristics which have a decisive role in the final success of the product.

Figure 2-2: PGI logo

2.3.2 Traditional Specialities Guaranteed

Traditional speciality guaranteed (TSG) (Figure 2-3) highlights the traditional aspects such as the way the product is made or its composition, without being linked to a specific geographical area. The name of a product being registered as a TSG protects it against falsification and misuse. It covers agricultural products and foodstuffs that are produced using traditional raw material or traditional production methods, or that have a traditional composition, with no restriction as to the product's geographical origin. The Traditional Speciality Guaranteed (TSG) refers to a product for which its specific qualities are related to a composition, methods of manufacturing or processing based on a tradition. The peculiarity of the Traditional Specialty Guaranteed is defined by two distinct yet highly related elements: the specificity and its traditional element. These two aspects are defined by the regulation respectively as : “the characteristic production attributes which distinguish a product clearly from other similar products of the same category”, for the specificity, and “proven usage on the domestic market for a period that allows transmission between generations; this period is to be at least 30 years”, for the traditional. The TSG is intended to define the composition or traditional mode of production of a product; it is not necessarily intended that this will have a link with its geographical origin. Traditional Speciality Guaranteed relates to a use of know-how, an ancient practice, typical, national, regional or local specifics, but which could easily be made outside the country or region of origin, or even obtained through manufacture of the product. TSG only applies to products or foodstuffs.

Figure 2-3: TSG logo

2.4 The new Optional quality term" Mountain food product"

The latest European Regulation on quality schemes i.e. "quality package" (Regulation EU n. 1151/2012) for agricultural products and foodstuffs, not only underlines the importance of consolidated voluntary certification schemes on Origin and Geographical Indications and Traditional but it also confirms the importance of origin specifically for rural areas (Bonadonna, 2016). In this context, the European Parliament drew attention to the need for the enhancement of mountain and insular areas and established the "Optional quality terms". Specifically, the Optional Quality Term "Mountain Product" (MP) has been introduced by European Legislation with the aim of th valorization of the foodstuffs produced in mountain areas (Article 31). This term was coined to provide an instrument that mountain workers may apply to the agrifood market. The EU definition of "Mountain" is contained in the Regulation EC n. 1257/1999 (Article 18). The Delegated Regulation EU n. 665/2014 detailed the "quality package" instructions and defined the conditions of use of the Optional Quality Term MP.

2.4.1 Regulation (EU) No. 665/2014

Relating to the optional quality term "mountain product", the Delegated Regulation No. 665/2014 established the criteria for using the new label. The optional quality term "mountain product" may be applied to products whose raw materials and animal foodstuffs are originated and processed within mountain areas (as defined by Article 18 of Regulation EC n. 1257/1999). In details, products made from animals may be certified if they are reared at least the last two thirds of their life in mountain and also processed into those areas (Article 1). To encourage the practice of transhumance, the new label may be used to products made from transhumant animals which spend at least a quarter of their lifetime on pastures in mountain areas. Article 2 specifies the origin of feedstuffs for animals that must

mainly come from mountain territories: at least 50% of the annual animal diet, 40% for ruminants and 25% for pigs.

The quality scheme may be applied to honey and other products of beekeeping where the bees have collected nectar and pollen only in mountain areas, although sugar fed to bees does not need to come from mountain areas (Article 3). In addition, products of plant origin (Article 4) and other ingredients (Article 5) may be certified as mountain food. Finally, this Act suggests specific criteria for the processing operation of dairy, meat and olives products (Article 6). These operations may take place outside mountain areas, at a maximum distance of 30 km.

After the publication of this Delegated Act, several countries have moved forward with the implementation of the optional quality scheme at the national level. This Act gave some room for manoeuvre to the Member States (MS) in implementing the term. Indeed, MS have the possibility to adjust the derogation on the processing outside mountain areas. While in the delegated act a distance of 30 km is allowed for the production of milk and milk products, MS can decide to reduce this distance or have no derogation on the distance. In addition, in order to avoid the fraudulent use of the optional quality term "mountain product", MS have to set up a control scheme to monitor the use of this term. This means that they have to define the procedures for the farmers using the label and they have to appoint an organisation responsible for controlling the use of the term.

2.5. Implementation of the Optional Quality Term ''Mountain Product'' at European level

As underlined in the previous paragraph, each Member State has the possibility to adjust the derogation on the processing outside mountain areas. While in the delegated act a distance of 30 km is allowed for the production of milk and milk products, slaughtering of animals and cutting and deboning of carcasses, and pressing of olive oil, MS can decide to reduce this distance or have no derogation on the distance. In addition, in order to avoid the fraudulent use of the "optional quality term" (OQT) "mountain product", MS have to set up a control scheme to monitor the use of the OQT. This means that they have to define the procedures for the farmers using the OQT and they have to appoint an organization responsible for controlling the use of the term.

Up to now, there are three types of Member States: the ones which will directly apply the EU regulation (Austria), the ones which are in the process of adapting their national laws to the EU regulation (France, Germany, Italy, Romania, Slovenia, Czech Republic, Bulgaria,

Croatia) and those which did not yet adapt their national laws (Portugal, Spain, UK/Scotland, Greece, Cyprus, Slovakia, Poland, Finland and Sweden) (Figure 2-4).

Figure 2-4: Implementation of the Optional Quality Term ''Mountain Product'' in 2020 (Source: Euromontana, 2020)

In the following paragraph each initiative will be explained regarding the different EU Member States and their way of applying the regulation. In addition, a summary table of the main EU Member States policies for the adoption of Mountain Products are presented in Annex I.

2.5.1 Austria

Austria, is different from the other EU Member States, in fact is directly applying the EU regulation without a specific national adaptation. With 73.4% of its territory covered in mountains and 54.7% of its utilised agricultural area (UAA) in the mountains, the production of mountain products in Austria represents a large part of the country's total farming output (38.1%). In the case of the adaptation process at the national level, there is not any specific legislation that will be adopted at the national level and so the derogation will not be redefined (Euromontana, 2020).

The regulation has been applied as stated in the EU regulation, "*processing outside mountain areas will be allowed provided that the distance from the mountain area in question does not exceed 30 km*". Therefore, farmers can directly use the OQT, as long as they are respecting the criteria. They are not obliged to be registered on any list. Regarding

the control system against frauds, an official control system has been agreed upon between the different Ministries. The Ministry of Health will take over the job of controlling and monitoring the food that reaches store shelves under the provisions foreseen in art. 7 of the FIC regulation (prevention of misleading the final consumer).

The Ministry of Agriculture will take over the implementation of the requirements of regulation 665/2014 in the field. To facilitate the development of a control system, which appears as the main reason to delay the implementation of the OQT in different countries, the Austrian Chamber of Agriculture and AMA (the Austrian Federal Marketing Agency) have developed together with the Bavarian Ministry of Agriculture and the government of South Tyrol, a manual focused on the requirements for feed stuff in order for a product to be considered a mountain product. These requirements were developed with the assistance of feeding specialists from Italy, Austria, and Germany and are based on a pragmatic correlation between the number of cow-heads per hectare and the relationship between green biomass and feed stuff intake. Related rules on the format used are holding by AMA and the agency is developing a special logo to communicate the mountain message to the consumer. The logo contains the term "mountain product". The control of the use of the logo will be based on a private certification scheme which complies with the official EU requirements. From the side of producers' general use and uptake of the OQT, there is interest in the use of the term, in early 2019, it seems that there was not a lot of concrete use in practice. In Austria, the term is most likely to be used for dairy, beef, lamb and fruit and vegetables. In general, one of the main worries is the use of fancy names for products that are abusively using the mountain term or pictures without applying the necessary criteria (Euromontana, 2020).

2.5.2 France

Mountain areas represent 23.1% of the French territory and 14.5% of the UAA is in mountains. France accounts for 18.3% of the EU mountain food production. The production of mountain products in France represents 8.5% of the country's total farming output representing 4265 million€. France and Italy are the two EU countries that already had a law regulating the use of the term 'mountain'. Therefore, since the adoption of the EU regulations, these laws have had to be revised.

On 7 October 2015, the French Ministry of Agriculture released the ordinance n°2015-1246 on signs for the indication of quality and origin. It introduced two distinct cases:

▪ For the food products mentioned in Annex I of the Treaty on the Functioning of the European Union as stated in article 31 of the Regulation (EU) N°1151/2012, the EU OQT "mountain product" should be used.

▪ For drinks and other non-food agricultural products (like water for example) that are not subject to the EU regulations and that were included in the previous French regulation, the national term 'mountain' is maintained.

In addition, France did not make use of the possibility to reduce the distance of processing outside mountain areas. For both the EU term and the national term, producers will no longer need authorisation before making use of these terms (as was the case under the previous national legislation). Nonetheless, they are encouraged to inform the DRAAF (Regional Direction in charge of Agriculture, Food and Forestry in each French region) that they are using the term. Regarding the control system against frauds, control will be realised by the competent administrative authorities (DGCCRF: Directorate-General for Competition, Consumer Affairs and Fraud Control) at local level (Euromontana, 2020).

In the case of the related rules on the format they decided as if the OQT appears on product packaging, there is no requirement on the format of the term. Many French products were already using the previous French term and are now using the EU OQT. Nonetheless, the absence of a national register makes it more complicated to have a full picture of the number of producers and the number of products using it.

In the further step of the producers' uptake, *Mont Lait* for milk products and *Origine Montagne* for pork products are two concrete cases on the implementation of the OQT managed collectively where producers play a key role in the implementation of the OQT (Euromontana, 2020).

2.5.3 Germany

2.4% of the German territory is covered in mountains and 1.8% of the German UAA is in mountains. But the production of mountain products in Germany still accounts for 3.6% of the country's farming activity. 460K ha agricultural production are in mountainous areas, which represents 14.4% of the Bavarian UAA (Euromontana, 2020).

The Federal Government adopted the (Lebensmittelspezialitätengesetz) Food Specialties Act to the EU legislation in order to integrate the OQT into the federal legislation (entered into force in January 2016). At present there is no additional national regulation on mountain products in Germany. In addition, the derogation on the distance of processing, the German government decided not to redefine the derogation, so that processing operations in Germany may take place outside mountain areas, "*provided that the distance from the mountain area*

in question does not exceed 30 km". Within the procedure for authorisation of using the Regulation (EU) No 1151/2012 and Delegate Regulation (EU) No. 665/2014, it should apply directly and there is no other authorisation specifically required.

In case of using the OQT, the existing authority in charge of controlling foodstuffs matters will monitor the cases of misuse and will apply appropriate administrative penalties. Various authorities will be in charge at the Bundesland level or local level. Producers' uptake of the OQT is decided as some Bavarian processing companies started to offer a price premium for milk produced in mountain areas (+1cts/l) in November 2015. But as such, the term "mountain product" does not seem to be used in Germany (Euromontana, 2020).

2.5.4 Italy

Given the strategic relevance of mountain areas in Italy, the Italian Ministry of Agricultural, Food and Forestry Policies (MIPAAF) has issued on 26 July 2017 (Published to official journal of the 13th September 2017) the National Decree n° 57167 permitting the use of the optional quality term "Mountain Product". According to the National Italian Decree, mountain areas are referred to the Article 32 of the Regulation (EU) 1305/2013. The Decree underlined the strong involvement of the regions in monitoring and controlling the application. In addition, the decree set up new guidelines including:

- Derogation on distance of dairy processing: 10km derogation to produce milk and milk products) (Art. 3)
- Control system against fraud: national and regional control authorities would be able to trace back the products to the processing and production places, protecting mountain products against the fraudulent use of the term mountain (Art. 5)
- Logo (Art. 6): The Ministry of Agriculture is developing a special national logo to communicate the mountain message to the consumer.
- Procedure for authorization of use of the optional quality term: the procedure for the authorization of use remains under the regional authority. Producers who want to use the optional quality term must inform the Regional authorities through the compilation of a specific module (Attachment 1 of the Decree).

Decree 20 July 2018

National guidelines on the controls have been adopted by the National Decree of 20 July 2018. This decree is issued pursuant to art. 2, paragraph 4 of the decree of the Ministry of Agricultural and Food Policies and forestry n. 57167 of 26 July 2017, hereinafter "Decree",

with the aim to facilitate control activities related to use the optional quality indication "mountain product" for products of animal origin, providing indications for the verification of compliance requirements on the origin of foods administered to farm animals. The rules on hygiene, preparation and feed trade provided for by current national legislation and EU.

Decree 2 August 2018

The Italian Ministry for agriculture, food, forestry and tourism has approved the Decree August 2nd 2018 for the establishment of the national identification logo (Figure 2-5) for the use of the optional quality term "Mountain product". The Decree describes the terms of the use of the logo and the technical characteristics for its reproduction. All mountain operators who already use or want to use the Optional Quality Term "Mountain Product" must apply it on the label of their products. Other brands, symbols or logos that qualify the product on different standards, with references to the mountain, can be used together with the national logo, only if they don't provide confusion for the consumer. With this announcement and the simultaneous approval of the national guidelines for controls on the origin of animal feed, Italy has now all the relevant legislation for the use of the Optional Quality Terms.

Figure 2-5: "Prodotto di Montagna" logo

(Source: Mipaaf, 2018)

2.5.5 Romania

29.9% of Romania is mountainous and 19.7% of Romanian UAA is in mountain areas. 9.15% of Romanian agricultural production occurs in mountain areas, accounting for 0.7% of EU mountain production. Therefore, Romania's mountain regions are an area with important economic, social, cultural and environmental potential. The country is one of the most active MS in developing the OQT in its mountain areas (Euromontana, 2020).

In July 2016, the government released its Decision no. 506 that defined the institutional framework and measures for the implementation of Regulation 665/2014. In March 2017, the Ministry of Agriculture issued Order No. 52/2017 with the subsequent amends and

updates which approved the procedure by those wishing to use the mountain product term have to follow in order to be able to use the term. Romania is the only country so far who decided not to use any derogation (reducing the distance to 0 km).

Furthermore, related to the procedure for authorisation of use, the Mountain Area Agency, which is a part of the Ministry of Agriculture and Rural Development, is in charge of coordinating the implementation of the OQT by the local authorities. The analysis of the requests to use the OQT, the authorisation and the monitoring of the users of the term will be done at the local level. The Mountain Area Agency will keep track of all the users in their National Registry of Mountain Products. This means that Romania has chosen to ask farmers for a pre-authorisation before they are allowed to use the OQT.

In addition, issues applied about the control system against fraud, the National Consumers Protection Authority is responsible for the controls on the market and will check if the producer has been granted the authorisation to use the OQT and if the labelling is in norm with the national regulation.

In January 2019 the government released its Order nr. 49 regulating the national logo to be used for the OQT.

Figure 2-6: 'Produs Montan' logo

(Source: Euromontana, 2020)

Since July 2017, 573 products have already been registered under the OQT for mountain products: (264) dairy and dairy products, (9) meat and meat products, (183) fruits and vegetables, (107) bee products, (9) fish products and (1) bread, bakery and pastry product. This important increase in the number of products using the OQT can be explained by four reasons, according to Danut Gitan, Director of AZM (National Mountain Agency):

- The whole process to obtain the OQT is centralised by the National Mountain Agency (publicity, registration, verification, controls), a dedicated organisation that aims at supporting the long-term development of mountain areas and which was officially created by the new Romanian Mountain Law.

- An insurance for the consumer that the product actually comes from the mountains, as the whole process is certified by the public authorities.
- A logo and a national database to give more visibility to the products
- A strong dissemination campaign in media (TV, radio, newspapers, the Internet, participation of producers to large national events to raise awareness and convince consumers of the added value of mountain products).

2.5.6 Bulgaria

38.1% of the Bulgarian territory is mountainous, 7.9% of the UAA is in these mountains, and 6.35% of the total food production occurs in mountain areas. Adaptation process at the national level has been applied on 28 May 2019 the Bulgarian Ministry of Agriculture, Food and Forestry released the Ordinance № 4/28.05.2019 on the conditions and procedure for the use of the optional quality term "mountain product" and for the control of its use.

Bulgaria has chosen to use the existing possibility of derogation; thus, slaughtering of animals and cutting and deboning of carcasses may take place outside mountain areas, provided that the distance from the mountain area in question does not exceed 30 km.

For the applied procedure for authorisation of use, Bulgaria has chosen to use a prior authorisation format. The procedure requires farmers to submit an application to the Regional Food Safety Directorate. After documentary and on-the-spot check, the farmer will have to be registered in the Public Register of the producers of OQT "mountain product", which is published on the internet site of the Ministry of Agriculture, Food and Forestry.

Related to the control system against fraud, the Bulgarian Food Safety Agency is in charge of the adequate controls. In addition, about the rules on the format used, If the OQT appears on product packaging, the label shall be accompanied by the Ordinance's approved national logo. Also, there is no information on the uptake by producers for the moment, but the prior authorisation should make it easier to follow who are the producers using this OQT.

CHAPTER 3
CONSUMERS PERCEPTION ON PRODUCTS LABELLED: A LITERATURE REVIEW

3.1 Introduction

Nowadays, consumers are searching for the quality schemes in food products as a result of searching for food quality and safety issues. In this case, labelled food products are one step ahead from unlabelled products and they enable consumers to trust and distinguish quality products while also helping producers to market their products better. Therefore, European quality schemes which are known as PDO, PGI and TSG are shown as primary indicator for those consumers during shopping. Few years ago, the new optional quality term 'mountain product' has been included inside the group of quality schemes, and it has been getting attention from consumers thanks to its production methods and natural ingredients compared to conventional products by emphasising the traditional production process or products made in difficult natural areas such as mountains or islands. In the following paragraphs, consumer behavior towards quality certified products will be analyzed starting from the literature.

Specifically, firstly, the behavior of consumers towards certified products such as PDO, PGI and TSG will be analyzed. Secondly, the attention will be focused on consumer behavior towards mountain products.

3.2 Consumers' attitudes towards foods labelled as PDO, PGI and TSG: an overview

Studies have shown that consumers tend to highly regard the quality, authenticity, ethical standards, country of origin and sustainable production of food products, prior to purchasing them (Herrera and Blanco, 2011; Aprile et al., 2012). According to the study (Aprile, Caputo, & Nayga, 2012) concludes that consumers are willing to pay more for PDO products, followed by organic farming label and only after for PGI label. Comparing products with and without PGI, Profeta, Balling, and Roosen (2012) also conclude that consumers are willing to pay more for PGI products, although it is generally women who are

more interested in those products (Supeková, Honza, & Kačenová 2008). In addition, the importance consumers give to "origin" as a quality attribute is one of the main motives for retailers deciding to sell PGI products (Bardají et al., 2009).

In the case of PDO/PGI products, there is evidence that consumers have an unclear and inadequate knowledge about their definition and characteristics, although these products are nowadays increasing in numbers and becoming more readily available to consumers. More specifically, in a recent study, Spanish consumers were unaware of the existence of quality labels, in general, whereas most of them did not know what a quality label was (MARM, 2010, as cited in Alcalde et al., 2013).

Furthermore, the study of Aprile et al. (2009) showed that consumers were confused by the meaning of these food labels and they showed for Italy that although respondents were habitual consumers of food products protected by European PDO or PGI designations, they had little awareness of the meaning of those labels . There is also evidence that Greek consumers have inadequate knowledge regarding the labels of certified products, which seems to have an effect on their intention to buy them (Fotopoulos and Krystallis, 2001; Philippidis and Sanjuan, 2003).

Additionally, according to Vecchio and Annunziata (2011), the PDO and PGI logos are the main purchasing motivation for Italian buyers with an excellent knowledge of the EU certification labels, while buyers with no knowledge of them, tend to base their purchasing decision on the product's low price, attractive appearance and Italian origin. Some other studies have also shown that socio-demographic characteristic (gender, age, income, education level and household size) influence purchasing decisions (e.g. Akhter, 2003; Bower et al.,2003; Dettmann and Dimitri, 2009).

According to study (Likoudis, Sdrali, Costarelli, & Apostolopoulos, 2016) whichwas set out to investigate the factors associated with consumers' intention to buy PDO/PGI food products. Results indicated that approximately 50% of respondents were willing to buy PDO/PGI products whereas the willingness to buy these products constituted an important factor in purchasing them. More specifically, according to the regression analysis, factors that are significantly associated with respondents' willingness to buy PDOs/PGIs were as follows: origin, health claims and label of a product, as well as sustainable consumer behaviour.

There is evidence that trust is considered as an extremely important factor in consumers' purchasing decision (Bredahl, 2001). It is closely linked to safety and perceived risk, as well as nutritional and health attributes. According to Herrera and Blanco (2011), trust can reduce

the perceived risk and can be a precursor of satisfaction, loyalty and purchasing intention. The results of the above study indicated that these variables were linked. In consumers with greater familiarity and experience with PDO products, the effects of trust on satisfaction and satisfaction on loyalty were higher. Yi and La (2004) have shown that loyal consumers show a special preference, attachment, positive word of mouth and willingness to pay a premium price, for foodstuffs, in general. Similarly, in the case of PDO food products, Botonaki and Tsakiridou (2004) and Skuras and Vakrou (2002), having investigated the intention of Greek consumers to purchase origin labelled wine, found that consumers' socio-demographic characteristics influence their intention to purchase. However, another study by Tsakiridou et al. (2009) revealed that socio-economic factors do not greatly affect consumers' intention to purchase Traditional Specialities Guaranteed products, while the most important purchase motive was consumers' attitude towards health and safety.

In the study of Fotopoulos and Krystallis (2003) investigated that consumers' motives to buy 'PDO Zagora' apples. Their findings suggested that consumers who buy the certified products are more likely to belong to an upper socio-economic class. In addition, consumers positively viewed PDO labels for which they were willing to pay a premium price. Finally, in another study conducted in Portugal, consumers' intention to buy PDO pears was investigated. It was concluded that consumers intended to pay the premium price of PDO pears being mainly motivated by food safety issues (Pinto et al., 2008).

The degree of awareness found differs widely between different studies. In one pan-European study carried out in all 27 EU countries (London Economics, 2008), the awareness was generally low study (7% for PDO, 4% for PGI, 5% for TSG).

Greece was an outlier (54% awareness for PDO or PGI); otherwise the highest degree of awareness was found in Italy (16%) followed by Portugal (12%). In another pan-European study carried out in six countries (Belgium, France, Italy, Norway, Poland, Spain, awareness was considerably higher: 68% for PDO, 36% for PGI, 25% for TSG (Verbeke, Pieniak, Guerrero, & Hersleth, 2012). Studies which were conducted in Europe reporting that information on the country of origin is one of the most important items of information on the labels (Grunert, 2005). It has been shown in the past that EU consumers, who highly value the quality of a product, identify product's origin as an important quality determinant and as a way to support local or regional (small) businesses (Krystallis and Ness, 2005).

Some of these studies (Fotopoulos & Krystallis, 2001,2003; van Ittersum, Candel, & Thorelli, 1999) are based on samples of consumers that have bought products with a PDO/PGI label, which may have inflated the results, as it would increase the likelihood that

consumers actually have seen the label, even though the results also show that many consumers buying quality labelled products are not aware of the label (Aprile & Gallina, 2008; Platania & Privitera, 2006; Urbano, Gonzalez-Andres, & Casquero, 2008).

Another two studies measured subjective understanding, showing that 20% (Fotopoulos, Krystallis, & Anastasios, 2011) and 37% (Vecchio & Annunziata, 2011) of the sample believed to understand what the PDO label stands for. The studies were carried out in Greece and Italy, both countries with a relatively high PDO penetration, suggesting that results of similar studies in Northern Europe could be lower. Shares of correct understanding vary therefore between 3% for both PDO and PGI in the Italian study by Aprile and Gallina (2008) and 17% for PDO and 14% for PGI in the pan- European study by van Ittersum et al. (1999). In addition to quality in the broad sense consumers associate the labels also with uniqueness (Cernea, 2011; Fontes et al., 2012) and with economic support to local producers (Teuber, 2011; van Ittersum et al., 2007).

In other studies, consumers with knowledge about or relationship to the region that the PDO refers to are more positive about PDO labelled products and/or have a higher willingness to pay (Botonaki & Tsakiridou, 2004; Cilla et al., 2006; Fotopoulos & Krystallis, 2003; Resano et al., 2012). Two studies (Carpenter & Larceneux, 2008; Verbeke et al., 2012) confirmed that knowledge about the PGI label's meaning makes it more likely that the label is used as a quality cue and affects decision-making. The study by Carpenter and Larceneux (2008) also suggests that the effect of the label may depend on whether the product is a regularly bought, well-known item or a seldom bought luxury item. Vecchio and Annunziata (2011) found, not surprisingly, that consumers with knowledge about the meaning of the PDO label had a higher willingness to pay for such products. Finally, Hassan and Monier-Dilhan (2006) found that the product's brand has an effect e PDO labels had a larger effect when the product was a private label brand and a smaller effect when it was a known national brand, but surprisingly they found that the effect of the PGI label on willingness to pay a premium was opposite, i.e., higher for a national brand than for a private label brand.

3.3 Consumers perception on mountain food products

The aim of the present paragraph is to explore and synthesize scientific research on mountain food products with particular regard to consumer behavior. A review is applied in order to identify and map the major available scientific evidence. In order to identify the most important publications, we have analyzed the “Web of Science” and “Scopus” and “Scholar” databases, filtering the search results for the period 1990-2020 by means of the

largest and comprehensive number of keywords and synonyms of mountain food products and consumers. The research tips utilized to identify the target set of publications are: "consumer", "mountain food", "mountain product". After the screening, the resulting number of papers was 14 (See Annex II). In the followed lines the most important results are summarized.

Mountain products are highly recognized for their authenticity, uniqueness and reinforcement of the external image of a specific region, have been increasingly requested and selected by consumers (Euromontana, 2016). There are situations in which some products not originated from mountain areas are labeled as “mountain product”, and consumers mislead as a result of it they pay more for low quality food products. Those kinds of fraudulent products are reducing the potential market advantage for those derived from mountain areas. However, Mountain products remain highly recognized for their authenticity, uniqueness and reinforcement of the external image of a specific region and have been increasingly requested and selected by consumers (Euromontana, 2016).

In fact, European consumers are willing to give a higher value to these products than to conventional foodstuff, as long as the supply chain is totally within mountain areas. Indeed, they link a mountain environment to the idea of a perfect place, characterized by no contamination (Santini, Guri, & Gomez y Paloma, 2013).

The study of Borec, Majkovic, and Neve (2009), underlined that informants and respondents have a positive perception of mountain products. Infact, even if the concept of MFP is unknown in Slovenia, consumers interviewed seem to intuitively know what the main characteristics of these products are. Results showed that respondents associate MFP with short food supply chains and believe these are mostly available in direct sales. The place of residence, age, and occupation also influence the perception of these products and their availability. The lack of communication and information about these products, highlighted during focus group discussions, was confirmed by the shelf survey.

Observations in diverse outlets in Slovenia underlined a lack of information on the mountain products’ characteristics and origin as well as insufficient marketing and promotion. More than 90% of the quantitative consumers’ survey respondents positively accepted the idea of a governmental and/or European quality label to certify that mountain quality food products really are mountain products.

Couget and Fouquet (1996), cited by Schjøll et al. (2010), showed that MFP are often perceived as pure, authentic, simple (even harsh) products by French consumers. These results indicate that mountain as a specific geographical origin may be valued by consumers.

Indeed, many European consumers assume benefits from products produced in mountain areas such as natural and traditional production or health values (Matscher and Schermer, 2009). For example, milk produced in mountain regions could profit from the positive image (van Ittersum et al., 2003).

A majority of EU consumers (65%) find benefits in buying mountain products (Eurobarometer, 2011) which are mainly associated with environmental and economic sustainability (small scale, contribution to the rural economy, short circuits), although not necessarily to wholesomeness or superior quality (Schjøll et al., 2010; Tebby et al., 2010).

According to the study of Sanjuan and Khliji (2016), the mountain labelling is likely going to find a timid response among urban consumers. In particular, to increase the currently low consumers' attention the mountain labelling could benefit from an association with other quality labels and brands. Therefore, paper finds synergies between mountain labelling and other quality schemes.

Also, in the study of Schermer et al., 2010 results have shown that most consumers expect mountain products to be from small scale farms produced under extensive farming conditions, but buy them in general in supermarket stores as part of their daily shopping routine.

According to the study of Brun et al., 2020 results show that Italian consumers have a positive attitude towards "mountain" honey; however, their response changes according to the socio-demographic and lifestyle characteristics. An appreciable relationship was observed between mountain product and local product, suggesting that the mountain quality label could be a useful tool for the valorisation of honey.

As indicated in the study of Bentivoglio et al., 2019 significant part of mountain food products are included in the European TSG, PGI and PDO labelling system. However, none of these labels recognizes and protects the mountain origin, as imagine of purity and environmentally friendly food product.

In addition, results of the qualitative study of Zuliani et al., 2018 showed that participants expect mountain farming to be on a smaller scale when compared to non-mountain farming systems and expect mountain products to be healthier. Similarly, all participants consider origin, locality, and small-scale production as relevant quality attributes of mountain cheese.

CHAPTER 4
CASE STUDY: CONSUMER PERCEPTION AND WILLING TO PAY FOR MONTAIN FOOD PRODUCTS (MFP)

4. 1 Introduction

Studies on consumer preferences towards mountain labelled products are scarce. Several authors have highlighted the limited knowledge of consumers possesses about this rather novel quality system. However, this optional quality label, which is generally well-regarded by consumers, can represent a useful tool to improve the economy and the spillovers of mountain territories, by promoting their quality food products and their sustainable development (Finco et al., 2017; Bentivoglio et al., 2019). The introduction of a new label can reasonably be considered an innovative process, as this usually occurs in a confined area, as it is subject to more restrictive production rules than traditional products and is also regulated by a control system (Brun et al., 2020).

Our study is based on the consumers' perception of the mountain products but not only on the certified "mountain" quality label but also assessing uncertified mountain products. As indicated in the paragraph above, the number of the studies are very few in that topic, therefore, we decided to evaluate the demand for MFP through a study case based on consumers' perception and willingness to pay for mountain food products for understanding better consumers. More in detail, due to the key role of Italy as the biggest producer of EU mountain products and the increasing attention of this country towards these food products, this study tries to understand the italian consumer perception and interest versus mountain food.

4.2 The Italian market of Mountain food product: A framework

In Italy, mountains cover 48% of the Italian territory, within 34% of its UAA in mountain areas and producing 31% of EU mountain food production. The production of mountain products in Italy represents 17% of the country's farming activity. Today, Italy is the biggest producer of EU mountain products followed by France and Spain. Together they represent

two thirds of the total mountain agricultural output (Santini et al., 2013). Greece, Germany and Austria are other important producers: each of them generates from mountain farms, an income equal to over 1 billion of Euros. The remainder of the profit, which constitutes 10% of the total, comes from other EU mountain regions. After long discussion, Italy has finally chosen to apply a 10 km derogation for the production of milk and milk products, thus reducing the 30 km possibility given by the EU regulation: this measure helps maintaining the benefit to mountain areas. Indeed, in Italy the distance of 30 km means that large cities like Torino or Milan could have benefited from the scheme if the distance of processing was not reduced. The reduction of distance allows many small plants processing milk and dairy to benefit from the scheme and to keep the added value in mountain areas. In details, (Figure 3-1) shows how mountain food label has been so far limited in some Regions.

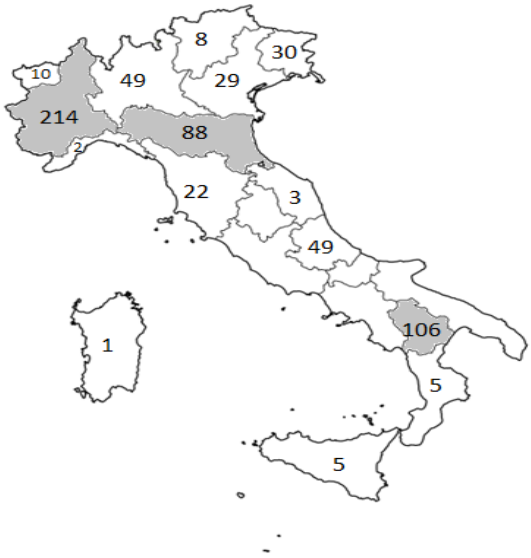

Figure 3-1: Number of labelled Mountain food producers in Italy by Region

The total number of producers registered in the different regional databases is 615. The repartition per region is the following:

- ✓ Piemonte (214 producers: mainly fresh and processed meat products, fruits, vegetables and unprocessed cereals but also milk and dairy products and, to a lesser extent, honey),
- ✓ Basilicata (106 producers: 26 milk and dairy products, 45 meat (animals and transformed) products, olive oil, fruits and cereals, aromatic herbs)
- ✓ Emilia Romagna (88 producers: mainly Parmigiano Reggiano cheese but also quite a lot of honey and even 6 producers of saffron)

- ✓ Lombardia (49 producers: they are mainly small producers of milk and cheese, some produce meat and processed meat, very few produce vegetable and fruits, cereals and honey)
- ✓ Abruzzo (49 producers: mainly potatoes and fruits),
- ✓ Friuli Venezia Giulia (30 producers: 21 are milk and dairy products, but also honey, processed fruits, meat, fruits and cereals)
- ✓ Veneto (29 producers: fruits and cereals; meat, milk and dairy products, honey)
- ✓ Toscana (22 producers: mainly honey, fruits and cereals), Valle D'Aosta (10 producers: milk, apples, potatoes, aromatic herbs)
- ✓ Trento (8 producers: mainly fruits,
- ✓ Calabria (5 producers: mainly chestnuts and products containing chestnuts)
- ✓ Sicilia (5 producers: mainly milk, cheese and cereals),
- ✓ Marche (3 producers: apples, olive oil, dairy products), Liguria (2 producers: olive oil),
- ✓ Bolzano (2 producers: yoghurts and apples),
- ✓ Sardinia (1 producer: milk and dairy products).

The mountain products basket under the new designation includes products linked to the image of agro-silvo-pastoral activities in the collective imagination, such as dairy products (25%). A further significant mountain production consists of fruit and vegetables (27%) and cereals (22%), followed by meat and cured meat (14%).

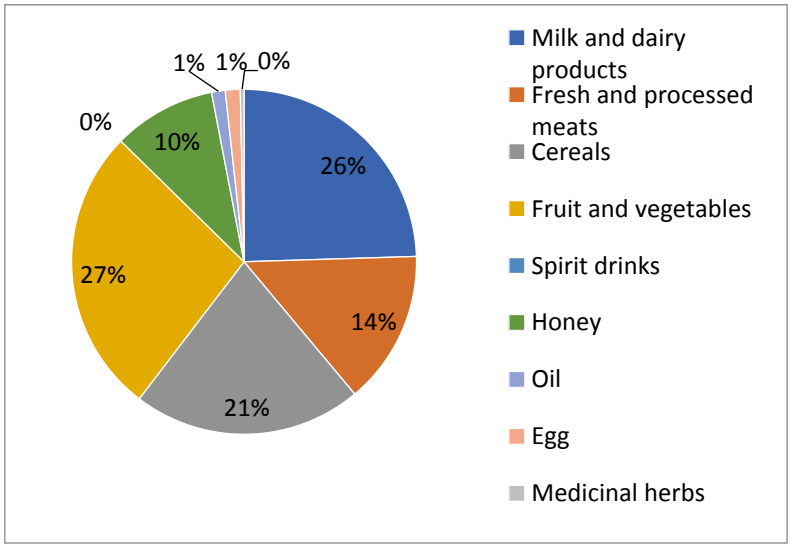

Figure 3-2: Type and percentage of products labelled as Mountain food Products

(Source: Our elaboration on Mipaaf 2020 data)

4.3 Method of analysis

The research was carried out with a double language (Italian and English) questionnaire aimed to evaluate consumers' habits for the mountain food products. The questionnaire is available in Annex III. The data collected through the questionnaire have been treated in an absolutely anonymous way and will be shown in graphs only in aggregate form (see a paragraph of results). For the purpose of dissemination, it was decided to use the on-line questionnaire, created through "google forms". This type of survey has many advantages such as low costs, speed of diffusion, ease of creating the database for the analysis of the answers, and ease of processing. However, it makes it impossible to reach people who don't have the technology. Furthermore, it is possible that the sample is not very representative of the reference population. This problem was solved through an extensive survey, which made it possible to collect the main characteristics of the population and to have a well-differentiated representative sample.

Before launching the online survey, the questionnaire used in this study was reviewed to establish validity. Thus a panel of experts was employed to evaluate the questionnaire. The validity was achieved through the expert's knowledge in consumer behaviour in the food sector and a statistical background. The experts reviewed and evaluated the questionnaire and made recommendations to improve clarity, understanding and to ensure that questions actually measured what was being asked. After the corrections were made, the questionnaire was then distributed to a sample of 20 consumers to provide further feedback and recommendations (pre-test). Then, final revisions were completed. In the next paragraph the final version of the questionnaire will be described.

4.3.1 Consumer questionaire

The survey consisted of 29 questions, available both in Italian and in English (chosen by the compiler), divided into four main sections:

1. Investigation on the mountain product: buying habits, consumption, and perceived attributes;
2. Investigation on the optional quality term "mountain product": purchasing habits, consumption, and perceived attributes;
3. Willingness to pay;
4. Socio-demographics characteristics of the participants.

The first section explores the purchasing habits for mountain products. The interviewee is initially asked if he has ever bought mountain products. Subsequently, in the case of an

affirmative answer, questions are asked aimed at analyzing the consumer, such as the frequency of purchase of these products, the place of purchase, the type of product purchased (eg milk, cheese, honey, etc.).

In the case of a negative answer, the interviewees were asked to assign a number of factors a score on a Linkert scale from 1 to 5[2], in order to assess the reasons for not buying.

To evaluate the consumer's idea of a mountain product, they were asked to indicate which product they associate with these places.

Finally, the consumer was asked to assign degree of agreement (on a Likert scale of 1 to 5) to 31 claims related to mountain products. These statements were obtained mainly from the Food Choise Questionaire (FCQ)[3], which is a specific scale created to carry out accurate consumer analyzes.

The second section assessed the relationship of consumers with the new optional quality term "mountain product". Initially, respondents were given the following definition of the optional indication of origin "mountain product" (based on Italian legislation):

> With a view to making the mountain products on the market more clearly identifiable and less misleading for consumers, in late 2012, the EU institutions legislated on a common definition of an optional quality term, "Mountain product" in the labeling of agricultural products (Regulation EU No 1151/2012 and Delegated Act EU No 665/2014). Successively, the Italian Ministry of Agricultural, Food and Forestry Policies (MIPAAF) permitted the use of the "Mountain Product" certification scheme and a specific logo. The term 'mountain product' is used for products for which the feed and the raw materials come essentially from mountain areas and for which the processing also takes place in mountain areas. This term was coined to provide an instrument to guarantees mountain food authenticity and contribute to the sustainability of mountainous areas.

Subsequently, they were asked if they were aware of this logo and if they had ever purchased it. If the answer is yes, the same questions were asked as in the previous section (frequency of purchase, place of purchase, type of product purchased).

Furthermore, a series of questions were asked to evaluate the consumer's relationship with this logo, namely:

- the degree of trust;
- the importance of the logo at the time of purchase;
- the attractiveness of the logo.

[2] where: 1 Completely disagree; 2 Disagree; 3 Undecided; 4 Agree; 5 Completely agree.
[3] Steptoe, et. Al., 1995; Lindeman & Väänänen, 2000; Renko, et. al. 2011; Ferrão, et. al. 2019

Finally, respondents were asked how easy for them to find mountain food products labelled in their area, measured by multiple choice question.

The third section is the focus of the analysis and aims to evaluate the willingness to pay for fresh mountain milk produced in Italy. In order to obtain reliable results, at the beginning of this section, respondents were asked whether or not they were consumers of milk. In case of a negative answer, the interviewees were asked the reason for not consuming milk.

Then the hypothetical scenario was proposed to the consumer, where the choice between two 1-liter milk packs with the following characteristics is proposed:

- a high quality fresh pasteurized whole milk of Italian origin;
- a high quality fresh pasteurized whole milk of Italian origin produced by Italian cows reared in mountain pastures and certified with the new "Mountain Product" label.

A market analysis was carried out to estimate a starting price for the product offered by us and to attribute an average price to a high quality fresh pasteurized whole milk of Italian origin. This survey was carried out in the period June-July 2020 in different stores in the Marche region (see Annex IV).

The comparison price detected is € 1.35.

Once the hypothetical scenario has been defined, the consumer is asked to indicate which price range he was willing to pay for this product. On the basis of the answer, he was asked to specify the price he would be willing to pay.

The last section of the questionnaire consisted of questions related to the main socio-demographic characteristics of the sample, such as gender, age, educational qualification level, annual family income, family status, number of household members, occupation, and presence of children. Following with field of study or degree and marital status was collected. Questionnaire was also taken to include respondents from rural, peri-urban, and urban areas included within the residential region/country to see the diffusion of consumers.

4.4 Results and discussions

In the following section, the main results obtained from the questionnaire are analysed. Data were collected from October 2020 to November 2020.

The survey is conducted via web with the Google Forms. People for consumers questionnaire were reached and invited via different social networks (mostly Facebook and

WhatsApp) starting with a small group of friends and progressively enlarging the number of contacts. The sample used for the purpose of the present analysis is of 413 people.

Regarding respondents 65% of the sample was found to be female. As for age, 2% of the people participated to the survey are younger than 20 years old, 48% between 20 and 29 years old, 18% between 30 and 39 years old, 13% between 40 and 59 years old, 14% between 50 and 59 years old and the remaining 5% are over 60 years old.

Regarding the qualifications obtained, 33% have a master's degree, 25% have a bachelor degree, 20% have a doctorate or higher, 19% have a high school diploma, and 3% have a middle school diploma. The high schooling rate of the sample indicates an increase in the financial resources and, consequently, in the possible level of expenses (Istat, 2019).

33% of the interviewees are students, 21% are employed, 11% are freelancers, 10% are teachers, 7% are unemployed, 5% are labourer, 4% are housewifes, 3% are director/managers, 3% are belong to other jobs and 1% are pensioners. Respondents were mostly from following fields of degree: Food Science & Technology, Engineering, Economy, Marketing & Communication, Medicine, Biology, Lawyer and Pharmacist.

Most of the people who participated to the questionnaire are 53% single and 26% are married however, it is found a strong variability in the size of households. The 13% live alone while the most common number of family size is 4 (32%) followed by 2 (22%), 3 (21%), 1 (13%), 5 (9%), 6 (1,5%), 7 (1%) and 8 (0,5%).

86% of the respondents do not have any children under 14 years, rest of them indicated as in the following; 9% of them indicated number of children under 14 years as (1) and 4% of the respondents indicated as (2), 1% of the respondents indicated as (3).

29% of the sample has an annual household income between € 21.000 and € 35.000, 21% between € 11.000 and € 20.000 and another 21% between € 36.000 and € 50.000. 11% have an income between € 51.000 and € 75.000, 12% less than € 10.000 and 6% greater than € 75.000.

The main area of residence is urban, with 58%. The sample is distributed throughout the national territory, with particular concentration in the Marche Region, which represents 23%.

The concentration of the sample in this region is linked to the place of launch of the questionnaire and the methods of administration. The other most represented regions are Campania with 15%, Lombardy with 14%, Puglia with 13,5%, Veneto and Sicily with 5,5% and Emilia-Romangna with 4,5%. Following (Figure 4-1) shows the results of the distribution of the samples' population in detail.

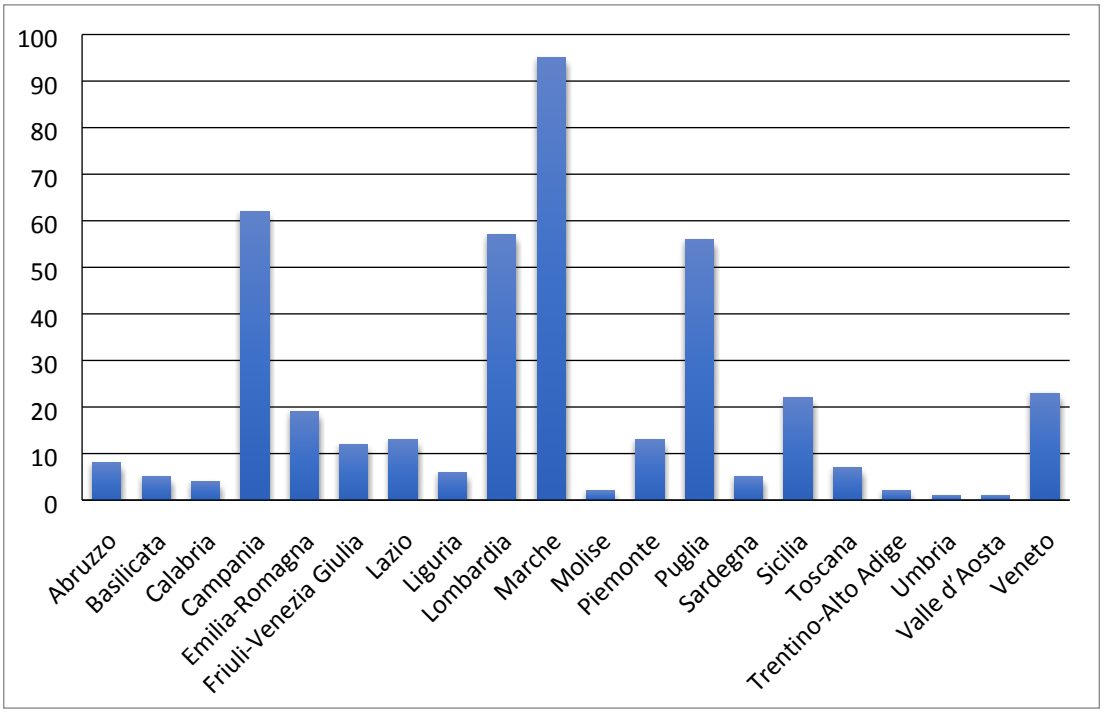

Figure 4-1: Distribution of samples' residence in Italy

Following findings (Table 2-1) shows the results of the socio-demographic analysis of the sample in detail.

Table 2-1: Summary of socio-demographic data

DATA	DESCRIPTION	PERCENTAGE
Age	<20	2%
	20-29	48%
	30-39	18%
	40-49	13%
	50-59	14%
	>60	5%
Gender	Female	65%
	Male	35%
Educational qualification	No formal education	0%
	Primary school	0%
	Middle school	3%
	High school	19%

	Bachelor's degree	25%
	Master's degree	33%
	Doctorate or higher	20%
Occupation	Labourer	5%
	Employee	21%
	Director/Manager	3%
	Housewife	4%
	Dealer	0%
	Entrepreneur	2%
	Teacher	10%
	Student	33%
	Self-employed	11%
	Retired	1%
	Unemployed	7%
	Other	3%
Marital status	Single	53%
	Married	26%
	Widowed	0%
	Divorced	4%
	Separated	2%
	In a relationship	15%
Family size	1	13%
	2	22%
	3	21%
	4	32%
	5	9%
	6	1,5%
	7	1%
	8	0,5%
Annual average household income	Less than € 10.000	12%
	Between € 11.000 and € 20.000	21%
	Between € 21.000 and € 35.000	29%
	Between € 36.000 and € 50.000	21%

	Between € 51.000 and € 75.000	11%
	More than € 75.000	6%
Residence	Rural Areas	17%
	Peri-urban areas	25%
	Urban areas	58%

Starting from the first question - Have you ever bought mountain products? - 85% of the sample bought mountain products (Figure 4-2).

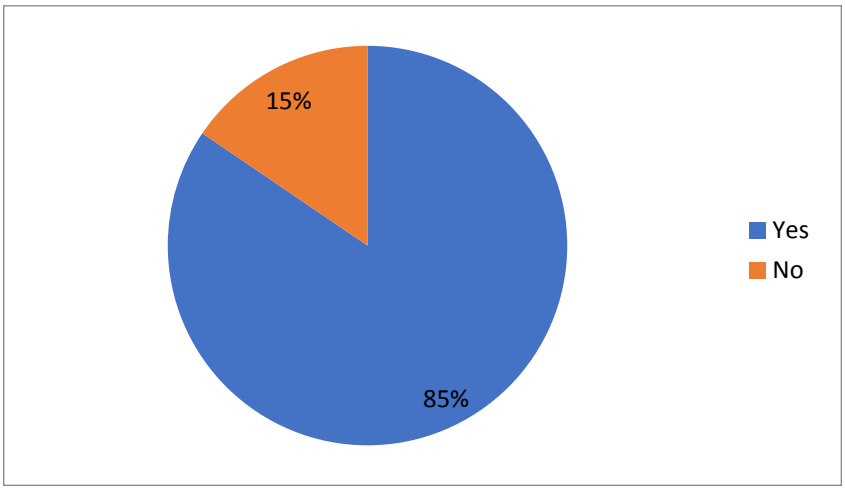

Figure 4-2: Buying for mountain products

15% of the interviewees who had indicated not to buy mountain products were asked to indicate the reason for not purchasing these products. The results are shown in Figure 4-3. In detail, 36% replied "I don't know where to buy mountain products", 17% highlight "Poor advertising and promotion of mountain food" and poor knowledge - "I don't have enough knowledge on mountain products" -, 7% "Can't distinguish mountain food from others" and 6% believe that "The price of mountain products is too high" or "They are not interested in mountain products". Finally, 4% say that "Mountain products are not clearly labeled", 2% "Do not trust the producers and whether the products are really produced in the mountain areas", or "In general, they have a negative opinion on-mountain food "or even" It is difficult to find information on the origin of food ". The 1% declared that "There is little choice among mountain foods".

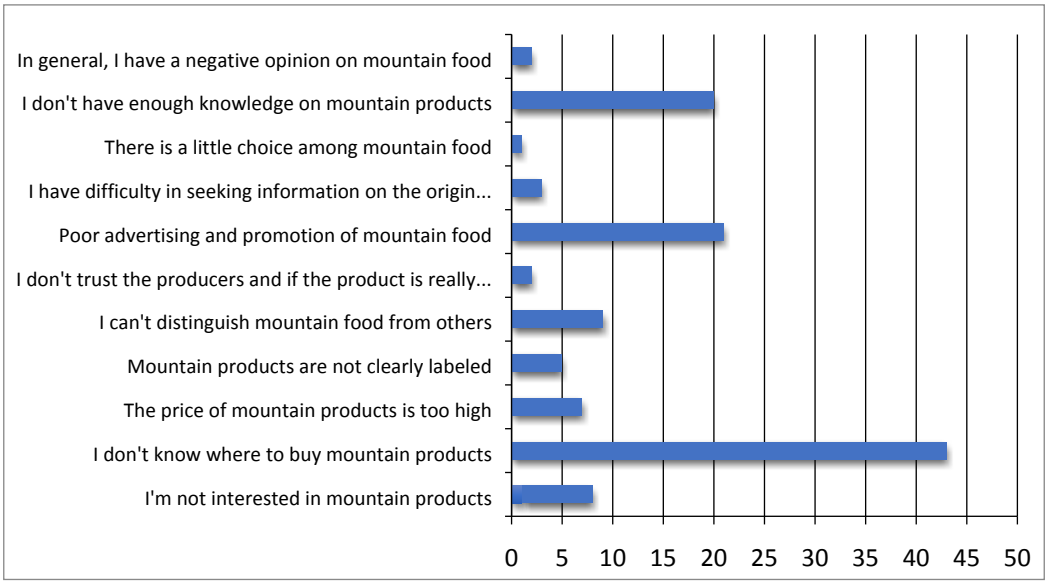

Figure 4-3: Statements for consumers not to consume mountain products

After the question about the interviewee's consumption of uncertified mountain products, he/she was asked to the frequency of buying those products. The answers have been elaborated and schematized in the followed graph (Figure 4-4). 49% of the interviewees replied that they consume uncertified mountain products less than once a month. Following respond with 15% once a month, 13% with 2-3 times a month and 2% with everyday consumption. Therefore, samples do not consume those products frequently in their daily life.

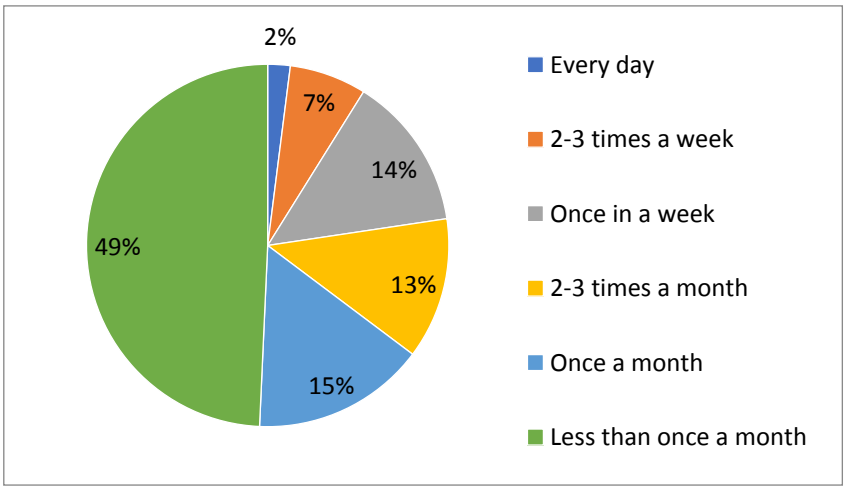

Figure 4-4: Shopping frequency of uncertified mountain products

In the next question, interviewees were asked about their place of purchase as shown in (Figure 4-5).

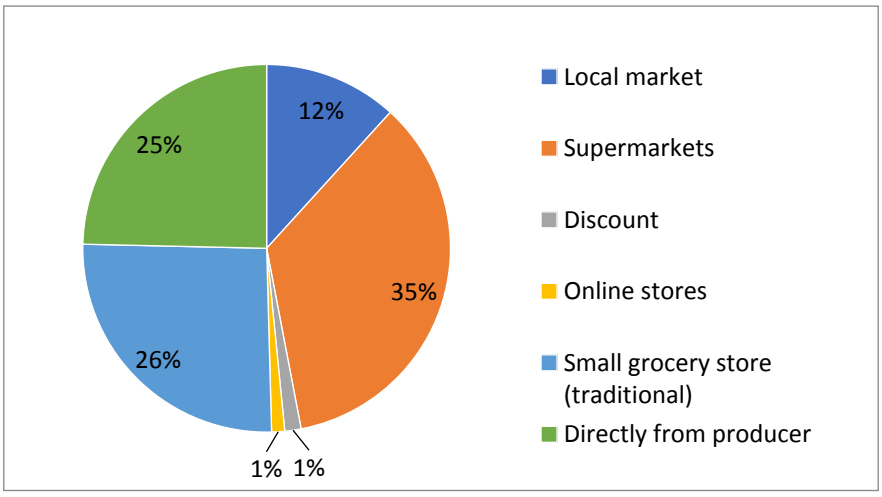

Figure 4-5: Places of purchase for mountain products

According to those results (Figure 4-5), 35% of the samples were indicated that they do shopping for mountain products from supermarkets, 26% indicated as small grocery store (traditional) and 25% of the samples indicated that they directly buy from producer. In fact, those results show that consumers prefer to buy those products from short chain suppliers. Most probably, the result from 35% (Supermarkets) is directly proportional to the number of samples that live in urban areas.

Successively, was asked for all interviewees to indicate the type of product they associate with the mountain area and most of them responded as in the following; cured meat, dairy products (especially cheese and milk), meat and honey (Figure 4-6).

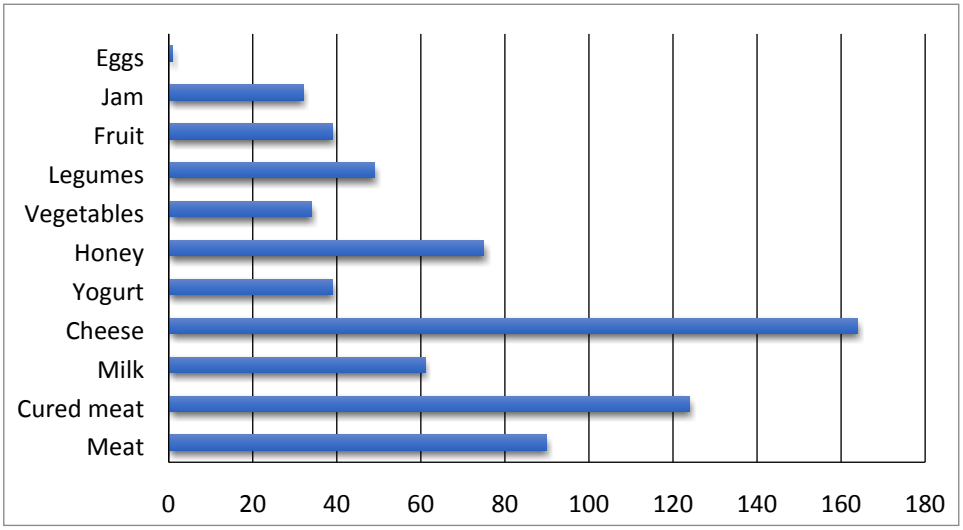

Figure 4-6: Type of mountain products consumed by samples

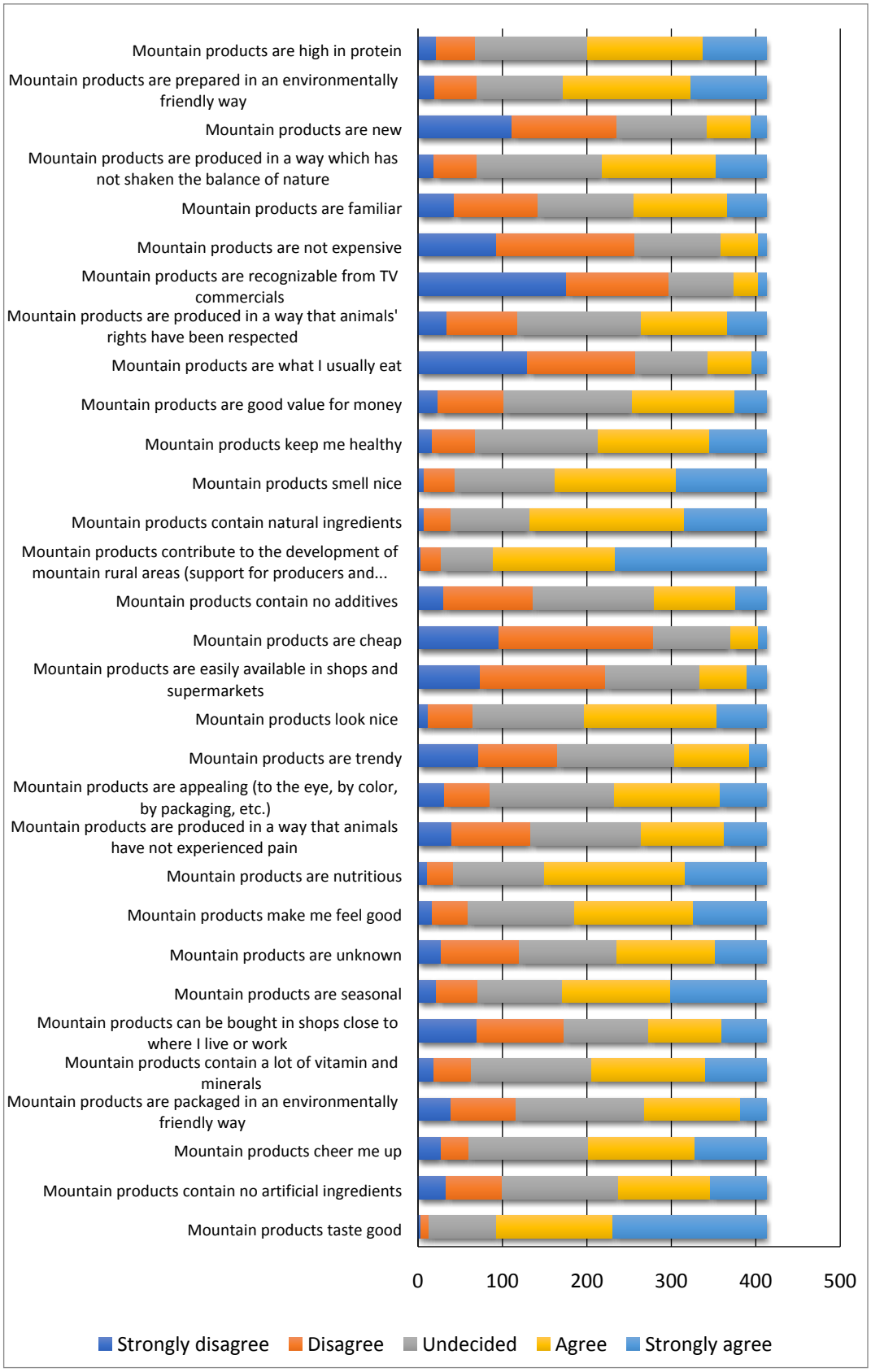

Figure 4-7: Level of agreement of the statements about MP

In order to evaluate the consumer behavior on-mountain food products, it was asked to attribute to each statement related to this food in a score on a Likert scale from 1 to 5 (where 1: strongly disagree; 2: disagree; 3: undecided; 4: agree; 5: strongly agree). Results are given in detail as a graph in (Figure 4-7).

According to results, respondents indicated their level of agreement (5: strongly agree) with the following statements: mountain products taste good and mountain products contribute to the development of mountain rural areas (support for producers and mountain cultural heritage).

Then, samples indicated the level of agreement as (4: agree) for those statements: mountain products are seasonal, mountain products are unknown, mountain products make me feel good, mountain products are nutritious, mountain products look nice, mountain products contain natural ingredients, mountain products smell nice, mountain products are prepared in an environmentally friendly way and mountain products are high in protein.

In addition, samples indicated the level of agreement as (3: undecided) for those statements: mountain products contain no artificial ingredients, mountain products cheer me up, mountain products are packaged in an environmentally friendly way, mountain products contain a lot of vitamin and minerals, mountain products are produced in a way that animals have not experienced pain, mountain products are appealing (to the eye, by color, by packaging, etc.), mountain products are trendy, mountain products contain no additives, mountain products keep me healthy, mountain products are good value for money, mountain products are produced in a way that animals' rights have been respected, mountain products are familiar, mountain products are produced in a way which has not shaken the balance of nature.

For the level of agreement (2: disagree), people indicated those statements: mountain products can be bought in shops close to where I live or work, mountain products are easily available in shops and supermarkets, mountain products are cheap, mountain products are not expensive and mountain products are new.

Last level of agreement (1: strongly disagree), includes those statements: mountain products are what I usually eat and mountain products are recognizable from TV commercials.

In the following question, interwees were asked has he/she had ever heard about the new optional quality term "Mountain Product". 25% of the consumers indicated that they heard the optional quality term before and rest of the consumers which is 75% indicated as they have never heard about this optional quality term before (Figure 4-8).

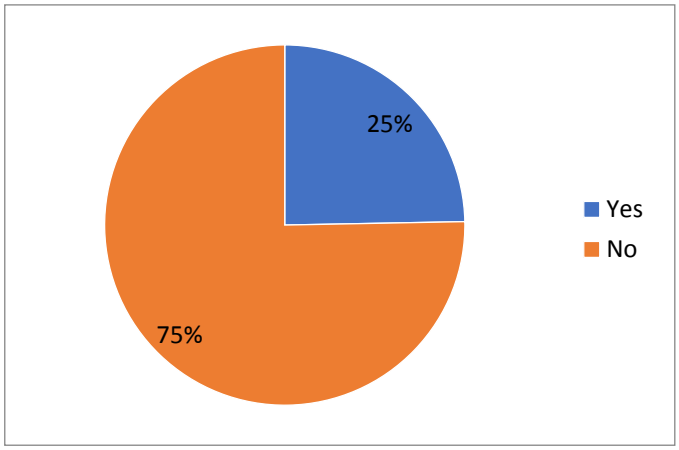

Figure 4-8: Hearing about of the new optional quality term 'Mountain Product'

Then, were asked interviewees has he/she ever bought products with the new optional quality term "Mountain Product". 16% of the consumers indicated that they have bought products with the optional quality term before, and 84% of interviewees indicated as they have never bought products with this optional quality term before (Figure 4-9).

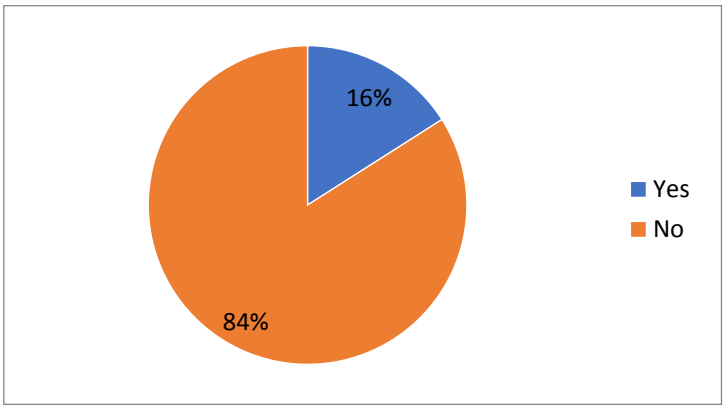

Figure 4-9: Buying for products with the new optional quality term 'Mountain Product'

According to buying habits for the products with the new optional quality term 'Mountain Product', interviewees who indicated 'Yes' were asked about their consumption habits. First, the question was related to how often do they buy products labeled with the new optional quality term "Mountain Product" and results are given as in the following (Figure 4-10).

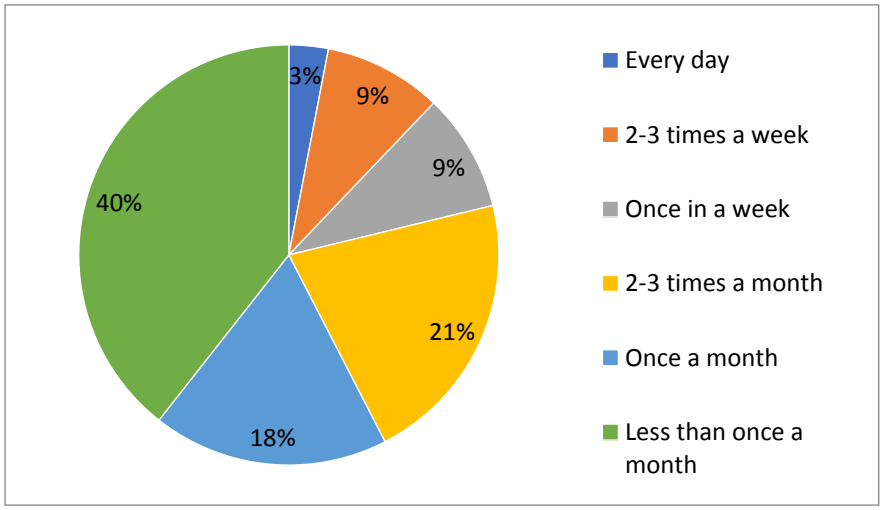

Figure 4-10: Buying frequency for the products with the new optional quality term 'Mountain Product'

40% of the people indicated that they buy products labeled with the new optional quality term less than once a month, 21% indicated for 2-3 times a month, 18% indicated they buy those products once a month, 9% indicated as both once in a week and 2-3 times in a week and 3% indicated that he/she buys every day.

Then, interviewees were asked where do they usually buy food labeled with the new optional quality term "Mountain Products" and 55% of respondents indicated they mostly buy certified mountain products from supermarkets. 15% indicated for both small grocery stores (traditional) and directly from producers. 2% buy from online stores and 1% from discounts (Figure 4-11).

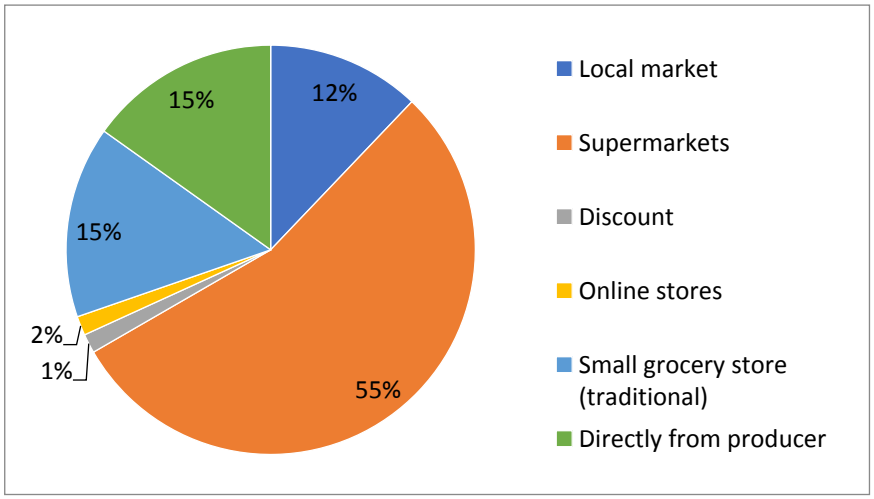

Figure 4-11: Purchasing place for products labelled with the new optional quality term

After, interviewees were asked what kind of products they bought with the new optional quality term. Results showed that they buy mostly those products in decreasing order; 24% Cheese, 15% Milk, 13% Honey, 11% Yogurt, 9% Cured meat, 8% Meat, 6% for both fruit and jam, 5% Vegetables and 3% Legumes are bought (Figure 4-12).

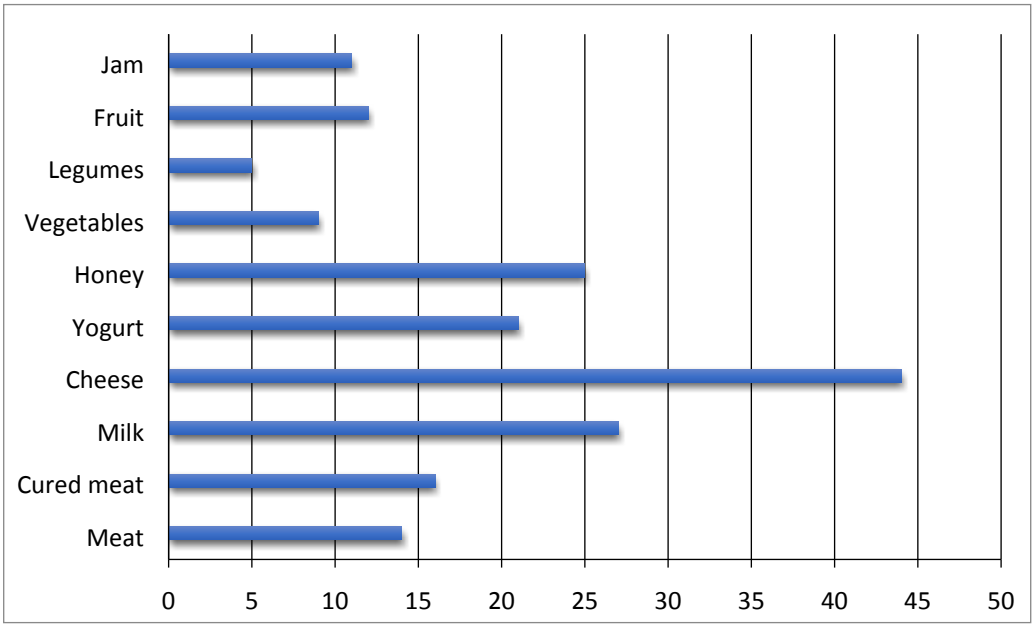

Figure 4-12: Type of the products consumers buy

Related to the question on the buying habits for products with the new optional quality term 'Mountain Product', interviewees who indicated 'No' were asked how much do you trust the mountain food product label on food products. Results showed that 56% of respondents indicated their trust as 'Moderately', 22% indicated that they trust 'Very much' the MFP label on food products, 11% indicated their trust as 'Much', 7% for 'Little' trust and 4% indicated their trust as 'Not at all' (Figure 4-13).

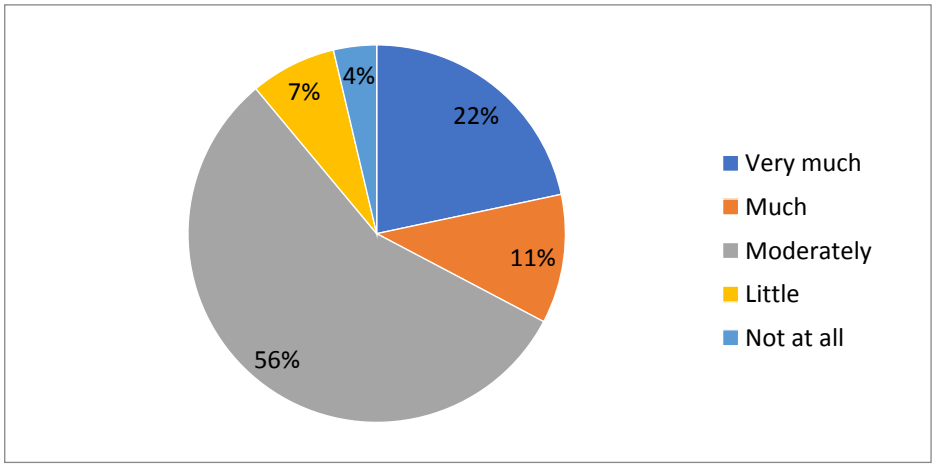

Figure 4-13: Trust for the mountain food product label on food products

All interviewees were asked about their consideration for the presence of the optional quality term in mountain food products as an important factor to buy the product in a score on a Likert scale from 1 to 5 (where 1:not important; 2:slightly important; 3:indifferent; 4:important; 5:very important). Results showed that 43% of the respondents find the presence of the MFP label in mountain food products as an 'Important' factor. 28% of the respondents indicated as they found it 'Very important', 21% indicated as 'Indifferent', 5% of the respondents indicated as 'Not important' the presence of the label and finally 1% of the respondents indicated as 'Slightly important' (Figure 4-14).

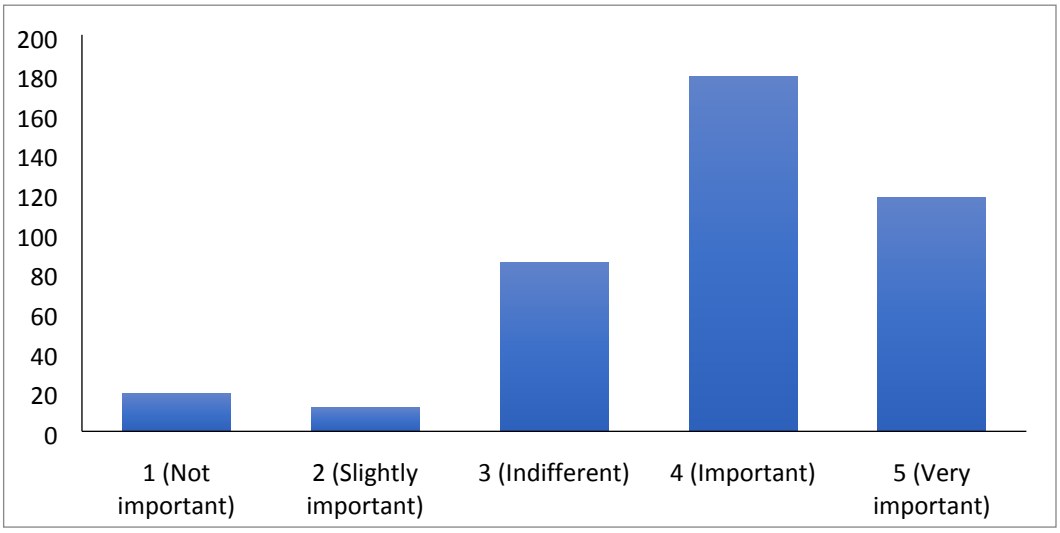

Figure 4-14: Consideration level for the presence of the optional quality term in mountain food products

Later, interviewees were asked how attractive do they find food labelled as "mountain food products" compared to other types of food products in a score on a Likert scale from 1 to 5 (where 1:not at all attractive; 2:slightly attractive; 3:moderately attractive; 4:very attractive; 5:extremely attractive). Results showed that 48% of respondents find them 'Very attractive', 27% find as 'Extremely attractive', 19% find as 'Moderately attractive', 4% find as 'Slightly attractive' and 2% for 'Not at all attractive'. It means that almost half of the respondents have positive view on the new optional quality term 'Mountain Product' (Figure 4-15).

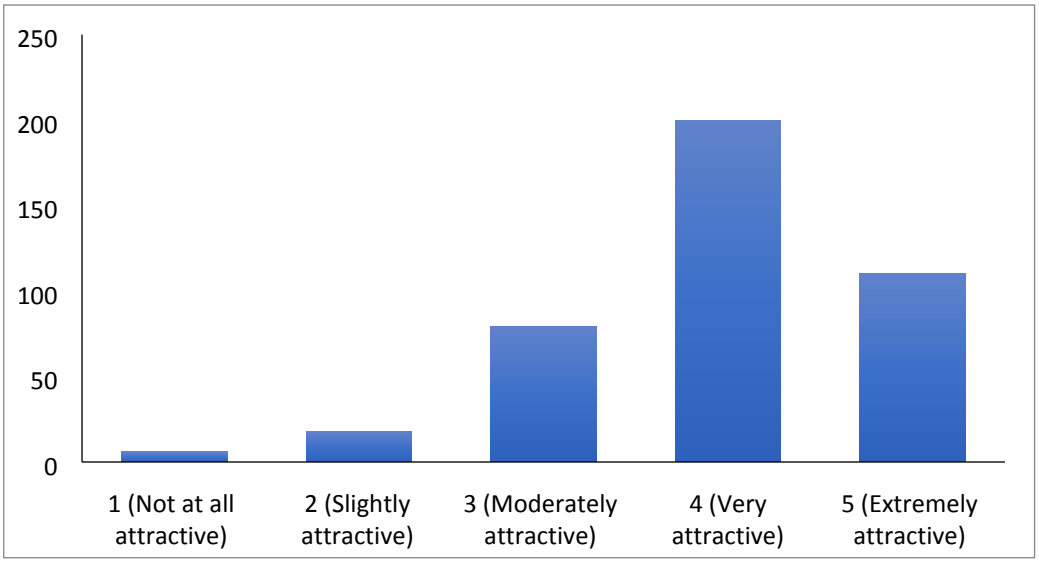

Figure 4-15: Attraction level of MFPs compared to others

Finally, in that section, interviewees were asked how easy is it for them to find mountain food products labelled in their area. 42% of respondents indicated mostly as 'Neither easy, nor difficult', 32% indicated as 'Difficult', 15% indicated as 'Very difficult', 9% indicated as 'Easy' and finally 2% indicated as 'Very easy'. Which shows that most of the people have difficulties for reaching the MFP in their living areas (Figure 4-16).

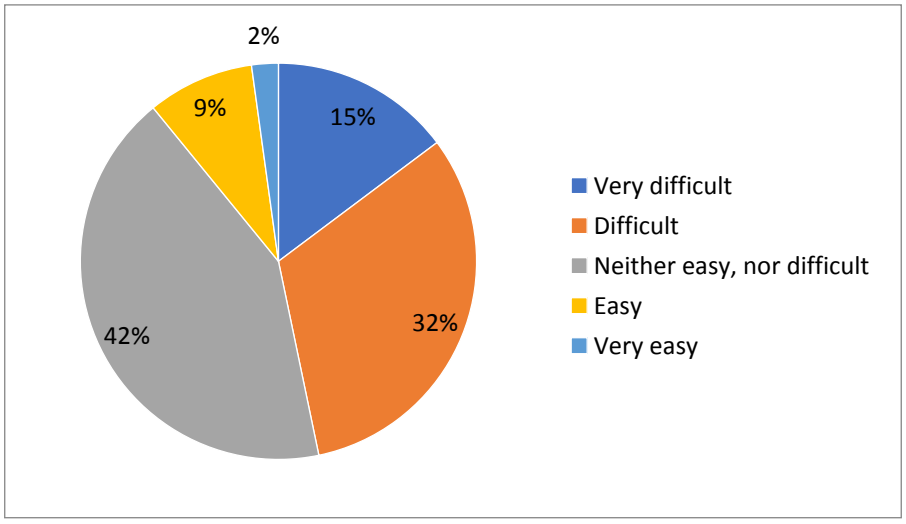

Figure 4-16: How easy can people find the MFPs in their area

The last section of the questionnaire concerns the elicitation of the WTP to purchase mountain milk. In the beginning, respondents were asked if they consume milk or not. In case of negative answers, the consumer was not subjected to the WTP.

89% of them said 'Yes' while 11% said 'No' for the consumption of milk (Figure 4-17).

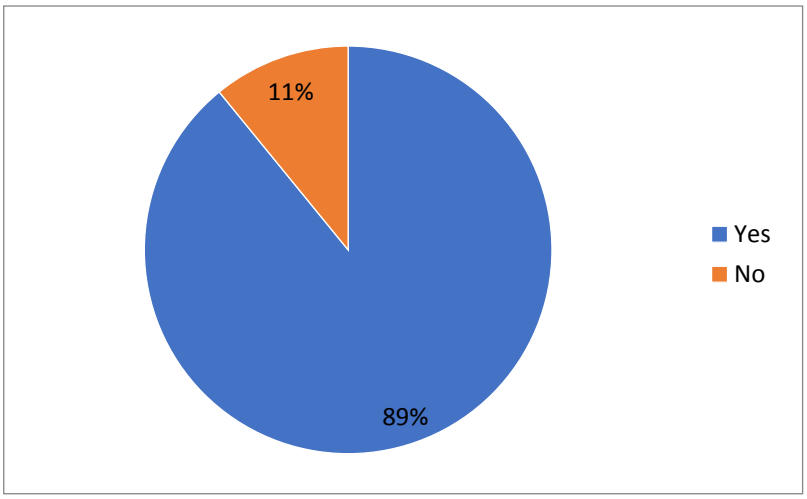

Figure 4-17: Milk consumption

More in details, not consuming is connected to different factors as:

- not appreciating the milk
- lactose intolerance
- digestion problems
- lifestyle (Vegan).

Due to the fact that a high quality fresh pasteurized whole milk of Italian origin is about € 1.35, they were asked how much more they would likely pay for the same milk but produced by Italian cows reared in mountain pastures and certified with the new "Mountain Product" label. In this study, the initial price is derived from market analysis of similar product. The market price was used as a starting point since consumers use reference prices as a threshold to evaluate the selling price of products, which in its turn, impacts subsequent purchase decisions. Out of a total of 368 milk consumers (89% of the total sample), 8% are unwilling to pay a higher price for certified mountain milk. Among those willing to pay a higher price, the majority are in the 1.36 to 1.55 € range (33%) followed by the 1.56 to 1.75 € range (30%). (Figure 4-18)

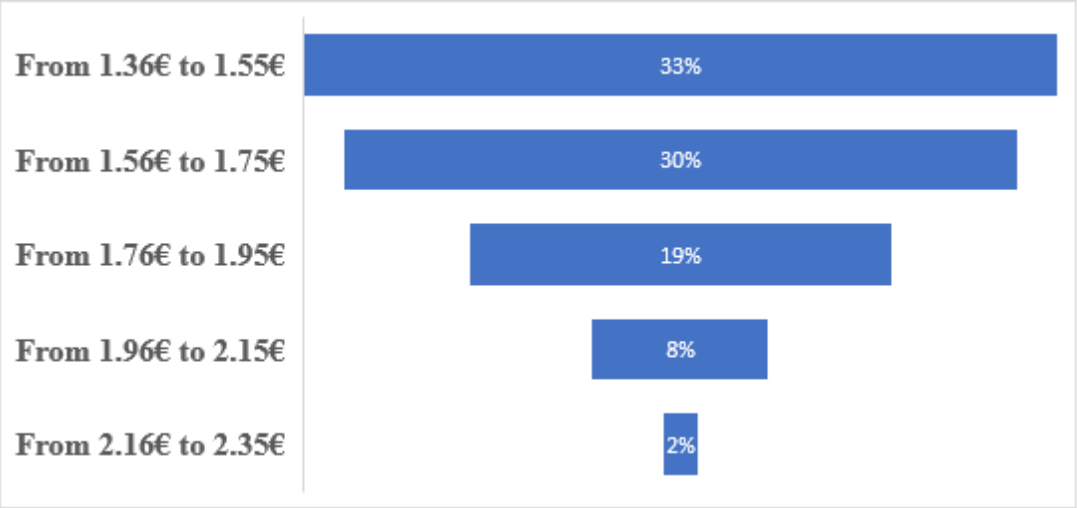

Figure 4-18: Distribution of the answers for the range of price offered

Subsequently, the actual willingness to pay of the consumer is estimated based on the answers provided (Table 2-2). From the analysis, it has emerged that consumers are willing to pay 1.55 € for mountain milk with the new label.

Table 2-2: WTP for the certified mountain milk

	Answers	Mean	Min	Max
Nothing	8%	0,00	0,00	0,00
From 1.36€ to 1.55€	33%	1,46	1,36	1,55
From 1.56€ to 1.75€	30%	1,66	1,56	1,75
From 1.76€ to 1.95€	19%	1,86	1,76	1,95
From 1.96€ to 2.15€	8%	2,03	1,98	2,15
From 2.16€ to 2.35€	2%	2,29	2,20	2,35
Final WTP		**1,55**		

Finally, the results suggest that surveyed consumers are willing to pay a premium of 0.20 cents in respect to a high quality fresh pasteurized whole milk of Italian origin. It is necessary to take into account that this average is the value expected of the willingness to pay, given the characteristics of the sample considered in the estimate. These results are in line with different studies which highlight that consumers are willing to pay more for mountain food products (Brun et al. 2020; Bentivoglio et al., 2020; Bonadonna et al., 2020).

CONCLUSIONS

The abandonment of mountain areas, a social phenomenon unstoppable for decades brought the European Union to develop new strategies to improve the competitiveness of mountain farms. In this optics, the use of the new optional indication "Mountain product", introduced for the first time by Reg. (EU) 1151/2012 and the Delegated Act (EU) 665/2014, it is crucial to promote products and support the economy of mountain areas. The possibility of using the mountain label for certain food products certainly represents an opportunity to be seized for mountain producers. In fact, it allows companies to stand out and enhance their products. On the other hand, the presence of the new label helps the final consumer in the conscious choice. Also, the distinction and enhancement of mountain productions can contribute to compensate, at least in part, the disadvantages of those who produce in marginal areas.

But consumers are aware of what it means "Mountain Product"? And in particular, consumers have a correct perception of the mountain's milk value?

The purpose of this study was to analyze consumers' perception of mountain food products and willingness to pay for high-quality fresh milk, identified with the "Mountain Product" label. The analysis revealed that people interviewed are willing to pay a premium price for mountain milk.

However, it is worth underlining how it emerges from the analysis that 75% of the sample have never heard about this optional quality term. Therefore, it is important to underline that, in order to incentivize the development of knowledge and to promote the purchase of this type of product, it is necessary a proper communication to the consumer. In addition, respondents indicated that their level of trust for the MFP labelling on the food products is moderate which, is most probably affected by fraudulent products in the market that mislead consumers very frequently.

The outcomes of the consumer questionnaire suggest that respondents associate MFP with short food supply chains, such as traditional stores and direct purchase.

In fact, it can be concluded that consumers have a favourable image of the mountain products because, in the questionnaire, they indicated that they find mountain products very appealing and they strongly agreed that mountain products taste good.

These results can be used for the development of targeted marketing strategies and sector policies with the dual purpose of implementing knowledge among consumers and to support the business of mountain farmers, recognizing the positive externalities connected to the production process sustainability.

Future studies may attempt to use alternative approaches both to identify market segments key to the product, both to identify factors that could affect consumers' WTP.

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ANNEX I

THE MAIN EU MEMBER STATES POLICIES FOR THE ADOPTION MOUNTAIN PRODUCTS

Member State	Adaptation national laws	Mountain area concerned*	Derogation on distance of processing	Procedure for authorisation of use	Database	Control system (authority and procedure)	Rules on format used	Producers' uptake
Italy	A decree has been adopted on 26 July 2017 "Regolamento communitario" (published to the Official Journal of 13 September 2017) to adapt the EU regulation	47,50%	▪10 km for milk and milk products ▪30 km for the rest	Declaration of use to regional government	Regional governments communicate producer list to national ministry	Control the use of the term at the market level	A national logo	Details per region are available on the National Ministry of Agriculture, 615 products registered in early 2020
Austria	No	70,50%	None	None	None	The Ministry of Health is taking over the job of controlling and monitoring the food that reaches store shelves and the Ministry of Agriculture is taking over the implementation of the requirements of the regulation 665/2014 in the field	None	

France	Ordinance 2015-1246 of 7 October 2015 on the indications of origin and quality ▪The Ministry of Agriculture has confirmed the legal framework for the use of the term	23,10%	None	None (decleration)	None	Done by the competent administrative authorities at local level	None	Several products are using the OQT
Romania	In June 2016, the government released its Decision nr. 5016 that defined the institutional framework and measures for the implementation of the Regulation 665/2014.	29,90%	No existing derogation, distance reduced to 0 km	A pre-authorisation of use	National Registry of Mountain Products managed by Mountain Area Agency (Ministry of Agriculture and Rural Development)	▪Control the use of the quality term and the labelling on the market done by National Consumers Protection Authority ▪Monitoring of the implementation of the legislation regarding food safety of the products that request and/or have obtained the right to use the OQT done by National Sanitary, Veterinary and Food Safety Authority	A national logo	573 products already registered
Slovenia	▪Act of Agriculture (OJ 26/14) ▪Rules on quality schemes for agriculture products and foodstuffs (OJ 23/15)	63,2%	None	Declaration of use to the Ministry	National ministry keeps track of the use of the term	Done by the Administration of the Republic of Slovenia for Food Safety, Veterinary Sector and Plant Protection	None	Only one farmer, producing fresh beef meat, registered as using the OQT

Bulgaria	Ordinance № 4/28.05.2019	38,10%	Slaughtering of animals and cutting and deboning of carcasses may take place outside mountain areas, provided that the distance from the mountain area in question does not exceed 30 km	A pre-authorisation system	Public register of the producers of OQT "mountain product", which is published on the website of the Ministry of Agriculture, Food and Forestry	The Bulgarian Food Safety Agency is in charge of the adequate controls	A national logo	Unknown

ANNEX II
SUMMARY OF THE VARIOUS STUDIES ON THE MFPS

Title of the Article	Authors/Years	The Objective	Methodology	Results
Determinants of interest in mountain food products: A European cross country study	Tebby et al. (2010)	Developing mountain food production is a way to encourage sustainable development of mountain areas. A key interest lies in identifying consumer propensity to purchase mountain food.	Measures the adequacy between the importance of a set of characteristics as consumers' food purchase criteria with the appeal of these characteristics in mountain food products according to retailers, in five European countries, using a weighted adding procedure.	Consumers who already shop through mountain type distribution channels such as specialty shops and direct purchase are more likely to purchase mountain products.
Promotion of mountain food: an explorative a study about consumers' and retailers' perception in six European countries	Schjøll et al. (2010)	To provide information based on surveys conducted in several European countries about how consumers and retailers perceive or expect mountain quality food products (MQFP).	Surveys collected in the context of the "European Mountain Agrofood Products, Retailing and Marketing"(EuroMARC) project and uses principal components to assess consumers and retailers perceptions of mountain food.	The different factor analyses underlined three main dimensions behind the diverse sets of perceptions: local,business and market.From these, the cultural/local dimension seems to be the clearest component behind both consumer's and retailer's perceptions.

Promoting Mountain Quality Food Products (MQFPs)- Analysing possibilities beyond labelling policy	Revoredo-Giha et al. (2010)	Discusses what other marketing alternatives exist for the promotion of mountain quality food products beyond labelling.	Through the analyses of shelves and postal surveys to retailers, carried out as part of the EU project EuroMARC, based on information for Austria, France, Norway, Romania, Slovenia and UK (Scotland). The analysis concentrates on two product promotion aspects: display and store promotion, and communication of product attributes.	Results indicate that there is scope to improve the promotion of mountain quality food products.
The perception of quality aspects for mountain products in long supply chains- Cases from Slovenia and Austria	Schermer et al. (2010)	Assesses which aspects of quality are perceived important by actors on different levels of the supply chain from farmer to consumer.	Two dairy supply chains in Austria and Slovenia are compared with the consumer expectations in the two countries.	Results have shown that most consumers expect mountain products to be from small scale farms produced under extensive farming conditions, but buy them in general supermarket stores as part of their daily shopping routine.
How much do consumers know about mountain food products: is there a need for labelling?	Borec A., Majkoviţ D., and Neve N., (2009)	Paper presents some characteristics about consumers‘ perceptions of mountain food products, obtained during focus groups and consumer survey.	Shelf surveys recorded by diverse retailers complete the analysis. These surveys also highlighted insufficient marketing and communication around these products	Results show that respondents have a positive image of mountain food. They associate it with the local origin and mainly expect to buy it through direct sales.

How well do food retailers know their customers? The case of mountain food products in Europe	Baritaux V., Tebby C., and Revoredo-Giha C., (2011)	Paper deals with the specific case of mountain food products (MFP) in Europe. Due to consumers' imperfect knowledge of MFP and the absence of an official definition of these products, retailers are surrounded with uncertainty about how to market these products and especially about how consumers perceive and assess MFP.	Analysing retailers' perceptions as regards MFP and the extent to which they match consumers' views by using the empirical analysis comprised two steps. This section presents the data used in the analysis, explains the construction of the index of fit and presents the variables used to characterise the retailers.	Results reveal that retailers' perceptions differ by country. They also show that retailers associated with 'alternative' supply chains seem to have a more accurate perception of consumers' preferences as regards MFP.
Short supply chains for local food in mountain areas	Kupiec Teahana et al. (2010)	The paper focuses on factors responsible for the resilience and long term survival of short, local food supply networks formed in mountain areas characterised by low population density, remote location and underdeveloped infrastructure.	A case study of an alternative food network established with participation of local government and umbrella institutions, individual food producers and distributors and financial aid provided by policy measures provides an input for evaluation of long term success factors of such community based enterprise.	Trust and relationships amongst supply chain participants in the supply chain and other stakeholders are critical factors in overcoming infrastructural and market barriers to the development of a successful local enterprise.
How can mountain quality food reduce the vulnerability of mountain farming systems?	Meiberger E., and Weichbold M., (2010)	Essay is based on personal research such as talks with farmers and experts. Trying to find a solution to the problems, two important topics are taken into consideration: cooperation and analyzing customers´ and guests´ wishes.	In depth interviews with partners in twelve experts; farmers engaged in diversification, owners of hotels and restaurants, a cook, trade and tourism managers, a butcher, a veterinarian.	The customers´ purchasing decisions determine the development of mountain farming: if mountain quality food is appealing enough to the potential customers, they will buy it and enable the farmers to stay. If farm food fails, because for whatever reason it is not attractive enough, mountain farms will soon be abandoned.

Biodiversity conservation as a new rationale for localized and sustainable agrifood systems- The case of two French PDO mountain cheeses.	Caron et al. (2010)	Paper is based on the results of an interdisciplinary research project financed by the French Ministry of the Environment (DIVA2 programme) which purpose is to study the emergence of biodiversity conservation as a new goal set to geographical indications.	Case studies have been carried out on two French PDO Mountain cheeses the "SaintNectaire" and the "Salers". The purpose was to analyse the emergence of biodiversity conservation as a new goal set to geographical indications and to study its effects on the strategies of the various stakeholders, and their impacts on the farming practices and the agro-food systems.	The first results of the analysis of the place of meadow biodiversity concerns in the local collective process of norms construction governing these two PDO supply chains. The weakness of collective action and the diversity of the PDO areas (in terms of livestock management and forage systems) that characterise the local context could make such a proactive change difficult without external support.
Testing consumer propensity towards novel optional quality terms: An explorative assessment of "mountain" labelled honey	Brun et al. (2020)	Study provides some preliminary reflections of the honey market and explores Italian consumer attitude towards the "mountain" quality term. Moreover, it also takes the organic and PDO labels into consideration, in addition to the generic "local" label, evaluating the relationships that exist between mountain honey and other products.	Datas were obtained through questionnaires using a face-to-face method and the econometric study was carried out using correlation analysis as a first step and then the one-way ANOVA and t-test, based on the socio-demographic and lifestyle characteristics; moreover, interactions among the characteristics mentioned above were evaluated using a two-way ANOVA with interaction.	The results show that Italian consumers have a positive attitude towards "mountain" honey; however, their response changes according to the socio-demographic and lifestyle characteristics. An appreciable relationship was observed between mountain product and local product, suggesting that the mountain quality label could be a useful tool for the valorisation of honey.
Animal Welfare and Mountain Products from	Zuliani et al. (2018)	This qualitative study aims at shedding light on consumers' perceptions regarding animal	Focus group interviews were conducted with consumers having different degrees of	The results of this qualitative study show that participants expect mountain farming to be on a

Traditional Dairy Farms: How Do Consumers Perceive Complexity?		welfare in mountain dairy cheese production systems.	geographical proximity to mountains and with an explicit interest in local dairy products.	smaller scale when compared to non-mountain farming systems and expect mountain products to be healthier.
Urban consumers response to the EU food mountain labelling: an empirical application in Southern Europe	Sanjuan and Khliji (2016)	This paper investigates the role of the mountain origin claim among urban consumers in four Pyrenean bordering regions, in France and Spain, applying a choice experiment.	An Error Components mixed logit model is estimated and attribute non-attendance is analytically derived.	Results suggest that the mountain labelling may have a limited impact on consumption, as it is highly non-attended and its WTP is low even after control for non-attendance. The paper finds synergies between mountain labelling and other quality schemes.
The Perception of Ecosystem Services of Mountain Farming and of a Local Cheese: An Analysis for the Touristic Valorization of an Inner Alpine Area	Montrasio et al. (2020)	The study aims to evaluate the perception that a local mountain community has towards animal husbandry in the Lanzo Valleys (Piedmont, Italy) and towards the typical local dairy product, Toma di Lanzo, as well as to investigate the consumers' habits and preferences, to detect possible positive impacts on mountain tourism.	Data were collected through a survey carried out by means of a questionnaire adapted from other questionnaires used in similar studies . A questionnaire was delivered to 233 respondents. The perception of the impact was scored using a five-point Likert scale.	The results show a very positive perception of the product Toma di Lanzo because of its origin and type of processing, with different perceptions of the local society and education level. The respondents had a very positive awareness of the impact of mountain livestock farming in the Lanzo Valleys. There was a very low perception of disservices derived from mountain animal farming. The main perceived obstacles to the spread of benefits derived from these farming systems were the scarce presence of specific supporting politics and the low income generated by mountain farming activities.

Farmers' General Image And Atitudes To Traditional Mountain Food Labelled: A Swot Analysis	Bentivoglio et al. (2019)	The objective of this research is to analyze mountain farms' perception on the advantages and limitations of the new mountain food quality label across EU and Italy to valorize mountain product in the market and also to support the rural development of these less favoured areas (LFAs).	A group of 120 companies was identified in the LFAs of the Marche Region. This paper applies a SWOT analysis through individual interviews, as a tool to identify strengths, weaknesses, threats and opportunities of the new mountain label for regional mountain farmers.	The respondents have emphasized that the valorization of mountain food products through the use of the new quality label can contribute to boosting the sustainability of mountain areas. However, stronger effective policies to support rural development of these areas are needed.

ANNEX III
CONSUMER QUESTIONNAIRE ON MFP

Welcome to the questionnaire aimed to investigate consumers' perceptions on mountain food products. We kindly ask you to answer some questions. Completing it through just a couple of minutes will be a great help in developing research at UNIVPM-D3A (Agricultural and resource economics). We underline that the questionnaire is anonymous and the data collected will be processed in compliance with the law on privacy. *

Thank you in advance for your cooperation and availability.

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*REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

* mandatory field

Which language do you prefer to complete the questionnaire? Language *

- o Inglese/English
- o Italiano/Italian (*Skip to "Per la versione Italiana cliccare il seguente link"*)

Per la versione Italiana cliccare il seguente link:
https://forms.gle/b3ssK2hkgWrit5Ff9

1. Have you ever bought mountain products? *

- o Yes
- o No (*Skip to the question 2a*)

2. How often do you buy mountain products? *

- o Every day
- o 2-3 times a week
- o Once in a week
- o 2-3 times a month
- o Once a month
- o Less than once a month

3. Where do you usually buy mountain products? *

- o Local market
- o Supermarkets
- o Discount
- o Online stores
- o Small grocery store (traditional)
- o Directly from producer
- o Other: _____

4. What kind of products did you buy? *

- ☐ Meat
- ☐ Cured meat
- ☐ Milk
- ☐ Cheese
- ☐ Yogurt

- ☐ Honey
- ☐ Vegetables
- ☐ Legumes
- ☐ Fruit
- ☐ Jam

2a. Why don't you buy mountain products? Indicate your level of agreement/disagreement with the following statements (Please select 2 options)*

- o I'm not interested in mountain products
- o I don't know where to buy mountain products
- o The price of mountain products is too high
- o Mountain products are not clearly labeled
- o I can't distinguish mountain food from others
- o I don't trust the producers and if the product is really produced in the mountain areas
- o Poor advertising and promotion of mountain food
- o Mountain food products have a lower quality than conventional food
- o I have difficulty in seeking information on the origin of food products
- o There is a little choice among mountain food
- o I don't have enough knowledge on mountain products
- o In general, I have a negative opinion on mountain food
- o I don't see the difference between mountain products and conventional products
- o Mountain food products are just a marketing tool

3a. What type of product do you associate with the mountain area? *

_____

5. Please indicate your level of agreement with the following statements about the mountain product (Where: 1 Strongly Disagree; 2 Disagree; 3 Undecided; 4 Agree; 5 Strongly Agree)*

Mountain products taste good					
Mountain products contain no artificial ingredients					
Mountain products cheer me up					
Mountain products are packaged in an environmentally friendly way					
Mountain products contain a lot of vitamin and minerals					
Mountain products can be bought in shops close to where I live or work					
Mountain products are seasonal					
Mountain products are unknown					
Mountain products make me feel good					
Mountain products are nutritious					
Mountain products are produced in a way that animals have not experienced pain					

Mountain products are appealing (to the eye, by color, by packaging, etc.)					
Mountain products are trendy					
Mountain products look nice					
Mountain products are easily available in shops and supermarkets					
Mountain products are cheap					
Mountain products contain no additives					
Mountain products contribute to the development of mountain rural areas (support for producers and mountain cultural heritage)					
Mountain products contain natural ingredients					
Mountain products smell nice					
Mountain products keep me healthy					
Mountain products are good value for money					
Mountain products are what I usually eat					
Mountain products are produced in a way that animals' rights have been respected					
Mountain products are recognizable from TV commercials					
Mountain products are not expensive					
Mountain products are familiar					
Mountain products are produced in a way which has not shaken the balance of nature					
Mountain products are new					
Mountain products are prepared in an environmentally friendly way					
Mountain products are high in protein					

CONSUMER PERCEPTION ON MOUNTAIN FOOD PRODUCTS

With a view to making the mountain products on the market more clearly identifiable and less misleading for consumers, in late 2012, the EU institutions legislated on a common definition of an optional quality term, "Mountain product" in the labeling of agricultural products (Regulation EU No 1151/2012 and Delegated Act EU No 665/2014). Successively, the Italian Ministry of Agricultural, Food and Forestry Policies (MIPAAF) permitted the use of the "Mountain Product" certification scheme and a specific logo.

Figure: The Italian "Mountain product" logo (Source: Mipaaft, 2017)

The term 'mountain product' is used for products for which the feed and the raw materials come essentially from mountain areas and for which the processing also takes place in mountain areas. This term was coined to provide an instrument to guarantees mountain food authenticity and contribute to the sustainability of mountainous areas.

6. Have you ever heard about the new optional quality term "Mountain Product"? *
   - Yes
   - No

7. Have you ever bought a product labelled with the new optional quality term "Mountain Product"? *
   - Yes
   - No (*Skip to question 11*)

8. How often do you buy products labelled with the new optional quality term "Mountain Product"? *
   - Every day
   - 2-3 time a week
   - Once in a week
   - 2-3 time a month
   - Once a month
   - Less than once a month

9. Where do you usually buy food labelled with the new optional quality term "Mountain Products"?*
   - Local market
   - Supermarkets
   - Discount
   - Online stores
   - Small grocery store (traditional)
   - Directly from producer

- Other: _____

10. What kind of products did you buy? *

- ☐ Meat
- ☐ Cured meat
- ☐ Milk
- ☐ Cheese
- ☐ Yogurt
- ☐ Honey
- ☐ Vegetables
- ☐ Legumes
- ☐ Fruit
- ☐ Jam

11. How much do you trust the mountain food product label on food products?

- o Very much
- o Much
- o Moderately
- o Little
- o Not at all

12. Do you consider the presence of the optional quality term in mountain food products as an important factor to buy the product? (Where 1: Not important, 2: Slightly important, 3: Indifferent, 4: Important, 5: Very important) *

	1	2	3	4	5	
Not important						**Very important**

13. How attractive do you find food labelled as "mountain food products" compared to other types of food products? (Where 1: Not at all attractive, 2: Slightly attractive, 3: Moderately attractive, 4: Very attractive, 5: Extremely attractive)*

	1	2	3	4	5	
Not at all attractive						**Extremely attractive**

14. How easy is it for you to find mountain food products labelled in your area? *

- o Very difficult
- o Difficult
- o Neither easy, nor difficult
- o Easy
- o Very easy

WILLING TO PAY FOR MOUNTAIN MILK

15. Do you (or one of your family) consume milk?
    - o Yes (*Skip to question 17*)
    - o No (*Skip to question 16*)

16. Why don't you consume milk?

    _____

17. The average price of a high quality fresh pasteurized whole milk of Italian origin is about € 1.35. How much more would you be willing to pay for the same milk but produced by Italian cows reared in mountain pastures and certified with the new "Mountain Product" label? *
    - o Nothing
    - o From 1.36€ to 1.55€
    - o From 1.56€ to 1.75€
    - o From 1.76€ to 1.95€
    - o From 1.96€ to 2.15€
    - o From 2.16€ to 2.35€

18. You indicated the range "From 1.36€ to 1.55€", could you be more precise?
    - o 1.36€
    - o 1.37€
    - o 1.38€
    - o 1.39€
    - o 1.40€
    - o 1.41€
    - o 1.42€
    - o 1.43€
    - o 1.44€
    - o 1.45€
    - o 1.46€
    - o 1.47€
    - o 1.48€
    - o 1.49€
    - o 1.50€
    - o 1.51€
    - o 1.52€
    - o 1.53€
    - o 1.54€
    - o 1.55€

    (*Varies from answer given*)

18. You indicated the range "From 1.56€ to 1.75€", could you be more precise?

- 1.56€
- 1.57€
- 1.58€
- 1.59€
- 1.60€
- 1.61€
- 1.62€
- 1.63€
- 1.64€
- 1.65€
- 1.66€
- 1.67€
- 1.68€
- 1.69€
- 1.70€
- 1.71€
- 1.72€
- 1.73€
- 1.74€
- 1.75€

18. You indicated the range "From 1.76€ to 1.95€", could you be more precise?

- 1.76€
- 1.77€
- 1.78€
- 1.79€
- 1.80€
- 1.81€
- 1.82€
- 1.83€
- 1.84€
- 1.85€
- 1.86€
- 1.87€
- 1.88€
- 1.89€
- 1.90€
- 1.91€
- 1.92€
- 1.93€
- 1.94€
- 1.95€

18. You indicated the range "From 1.96€ to 2.15€", could you be more precise?

- 1.96€
- 1.97€
- 1.98€
- 1.99€
- 2.00€
- 2.01€
- 2.02€
- 2.03€
- 2.04€
- 2.05€
- 2.06€
- 2.07€
- 2.08€
- 2.09€
- 2.10€
- 2.11€
- 2.12€
- 2.13€
- 2.14€
- 2.15€

18. You indicated the range "From 2.15€ to 2.35€", could you be more precise?

- 2.16€
- 2.17€
- 2.18€
- 2.19€
- 2.20€
- 2.21€
- 2.22€
- 2.23€
- 2.24€
- 2.25€
- 2.26€
- 2.27€
- 2.28€
- 2.29€
- 2.30€
- 2.31€
- 2.32€
- 2.33€
- 2.34€
- 2.35€

SOCIO-DEMOGRAPHIC QUESTIONS

19. Age *
    - <20
    - 20-29
    - 30-39
    - 40-49
    - 50-59
    - >60

20. Gender *
    - Female
    - Male

21. Educational qualification *
    - No formal education
    - Primary school
    - High school
    - Bachelor's degree (*Skip to question 22*)
    - Master's degree (*Skip to question 22*)
    - Doctorate or higher (*Skip to question 22*)

22. Field of study or degree

_____

23. Occupation *
    - Labourer
    - Employee
    - Director/Manager
    - Housewife
    - Dealer
    - Entrepreneur
    - Teacher
    - Student
    - Self-employed
    - Retired
    - Unemployed
    - Other: _____

24. Marital status *
    - Single
    - Married
    - Widowed
    - Divorced
    - Separated
    - In a relationship

25. Size of the family unit (indicate the number of people in the family) *

_____ (*Number max 21*)

26. Number of children under 14 years *

_____ (*Number max 21*)

27. Annual average household income *

- o Less than € 10.000
- o Between € 11.000 and € 20.000
- o Between € 21.000 and € 35.000
- o Between € 36.000 and € 50.000
- o Between € 51.000 and € 75.000
- o More than € 75.000

28. Region of residence in Italy *

- o Abruzzo
- o Basilicata
- o Calabria
- o Campania
- o Emilia-Romagna
- o Friuli-Venezia Giulia
- o Lazio
- o Liguria
- o Lombardia
- o Marche
- o Molise
- o Piemonte
- o Puglia
- o Sardegna
- o Sicilia
- o Toscana
- o Trentino-Alto Adige
- o Umbria
- o Valle d'Aosta
- o Veneto
- o Other: _____

29. Residence *

- o Rural Areas
- o Peri-urban areas
- o Urban areas

THE QUESTIONNAIRE IS FINISHED

PLEASE PRESS THE "SEND" BUTTON IN ORDER TO REGISTER AND CONFIRM THE ANSWERS.

ANNEX IV
MARKET RESEARCH ON MILK PRICE

Mountain Milk (without certification)				
Brand	**Fat content**	**Shop**	**City**	**Price**
Viva	Semi-skimmed/Lactose-free	Tuodì	Ancona	0,89
Berchtesgadener Land	Whole milk	Natura Si	Ancona	1,90
Berchtesgadener Land	Semi-skimmed milk (1,5%)	Natura Si	Ancona	1,90
Milk (Latteria-NÖM)	Whole milk	Todis	Porto San Giorgio/Fermo	1,29
ColFiorito (Latte dell'Appennino)	Whole milk	Conad	Civitanova	1,19
Mila (latte di montagna)	Semi-skimmed milk	Oasi	Fermo	1,55
Mila (latte di montagna)	Whole milk	Oasi	Fermo	1,39
DolceNatura	Semi-skimmed milk	Tuodì	Porto Sant'Elpidio	1,19
LATTEBUSCHE latte fresco di montagna	Whole milk	Famila	Belluno	1,38

Mountain Milk (with certification)				
Brand	**Fat content**	**Shop**	**City**	**Price**
Conad/Sapori&Dintorni	Whole milk	Conad	Ancona	1,39
Coop/Fiorfiore	Whole milk HQ	Coop	Ancona	1,36
Angolo di Paradiso	Whole milk HQ	Conad	Fermo	1,79
Latte Fresco Alta Qualità Intero Prodotto di Montagna Trentino	Whole milk HQ	On-line	Trento	1,79
Latteria Sociale Valtellina Latte Fresco	Whole milk HQ	On-line	Valtellina	1,69

Conventional Milks (without certification)					
Brand	**Fat content**	**Type of milk**	**Shop**	**City**	**Price**
Coop/Coop Origine	Whole milk	Fresh	Coop	Ancona	1,16
Trevalli (with logo Qm*)	Whole milk	Fresh	Coop	Ancona	1,49
Parmalat/ Centrale del latte Ancona	Whole milk	Fresh	Coop	Ancona	1,58
Granarolo	Whole milk	Fresh	Coop	Ancona	1,49
Parmalat	Whole milk	Fresh	Si con te	Ancona	1,45
Vale	Whole milk	Fresh	Si con te	Ancona	1,09
Grifo latte	Whole milk	Fresh	Si con te	Ancona	1,69
Granarolo/Gusto di una volta	Whole milk	Fresh	Tigre	Ancona	1,69
Granarolo/ Latte Piu Giorno	Whole milk	Fresh	Tigre	Ancona	1,49
Parmalat/Puroblu	Whole milk	Fresh	Tigre	Ancona	1,59
Consiglia/Saper Scegliere	Whole milk	Fresh	Tigre	Ancona	0,99
Carrefour	Whole milk	Fresh	Carrefour	Camerano (AN)	1,15
Conad	Whole milk	Fresh	Conad	Ancona	1,09
Milbona	Whole milk	Fresh	Lidl	Ancona	0,89
Latteria	Whole milk	Fresh	Lidl	Ancona	1,09
Latte Trentino	Whole milk	Fresh	Online	Trentino	2,15

Qm*: Qualita garantita dalle Marche

Products are included are in the category of '*High Quality & 100% Italian Milk*'