

Article

Can Livestock Farming and Tourism Coexist in Mountain Regions? A New Business Model for Sustainability

Dino Genovese ¹, Francesca Culasso ^{2,*}, Elisa Giacosa ² and Luca Maria Battaglini ¹

¹ Department of Agricultural, Forestry and Food Sciences (DISAFA), University of Turin, Grugliasco 10095, Italy; dino.genovese@unito.it (D.G.); luca.battaglini@unito.it (L.M.B.)

² Department of Management, University of Turin, Turin 10134, Italy; giacosa@unito.it

* Correspondence: francesca.culasso@unito.it; Tel.: +39-011-6706014

Received: 30 September 2017; Accepted: 31 October 2017; Published: 3 November 2017

Abstract: European Mediterranean mountain regions have been characterized by a sort of competition between the tourism sector and the agro-silvo-pastoral system, which in recent years has contributed to generate a continuous decline of the second one. Nevertheless, Pasture-based Livestock Farming Systems (PLSFS) are relevant for their role in the management and conservation of large High Nature Value (HNV) farmlands in Europe. The goal of our research is therefore to analyze what are the main features of farming organizations in the Italian alpine mountains and how they may be combined into innovative and sustainable business models (BM), characterized by the coexistence of agro-silvo-pastoral and touristic activities. By drawing upon the BM definition suggested by the Bocken's et al. (2014), an exploratory case study has been analyzed; in particular, we propose the case study of the Lanzo Valleys, an alpine mountain region in the northwest of Italy, and the Toma di Lanzo Producers Association. The way a concrete and sustainable innovation in the more traditional BM could be supported only by the proactive intervention of a supra-farm dimension, while maintaining the peculiarities of the individual farms, is clearly shown in the article. A system of firms and institutions linked together in a collaborative relationship may represent a strong network, able to achieve the common goal of producing a sustainable development for the territory. Indeed, environment and cultural heritage may be preserved, as well as the economic perspective of farms reinforced, while the PLSFS could become more attractive for the tourism phenomenon. Interesting implications for farmers, policy makers and local institutions are identified.

Keywords: mountain region; Pasture-based Livestock Farming System; PLSFS; business model; BM; Business Model Innovation; BMI; sustainability; tourism; agritourism; ecotourism

1. Introduction

Despite tourism development in European Mediterranean context has had, since the 1970s, a variety of positive effects upon the economy of mountain regions, especially considering the increasing of population in the alpine territory and the diversification of productive activities (e.g., the establishment of ski resorts), it has also produced negative impacts [1]. The recent literature on this topic allows believing that there has been a competition between the primary (i.e., agro-silvo-pastoral systems) and the tertiary sector (i.e., tourism), which has contributed to increase the socio-economic vulnerability of the mountain regions, changing the environment, the landscape diversity and the social features of those areas [2]. Indeed, the agro-silvo-pastoral systems in Mediterranean countries have continuously declined in recent years, because of a lack in intergenerational succession and/or the substitution of agriculture with other activities [1]. In addition, young farmers often refuse the harsh working conditions of agro-silvo-pastoral activities and abandon the mountains to end up

working even harder in urban or in other rural areas. Furthermore, in recent years, a reduction in labor dedicated to farming was observed, caused by a relevant increase of more profitable off-farm activities, such as tourism.

Nevertheless, Bernués et al. [1] affirm that Pasture-based Livestock Farming Systems (PLSFS) are “still important in the European Mediterranean basin” as “they play a central role in the management and conservation of large High Nature Value (HNV) farmland in Europe” (p. 45). In particular, PLSFS are relevant from both environmental and social perspectives, as well as an economic point of view, since they permit to avoid the process of shrub and forest invasion [3], to maintain the biodiversity, to regulate the water supply, to reduce fire-hazards and soil erosion, and to preserve traditions and a cultural heritage [4]. Therefore, the coexistence of touristic activities and PLSFS are desirable to maximize the sustainability of mountain regions [2]. Agricultural and agro-environmental policies, both at European, national and local level, should be developed to allow this coexistence of primary activity with tourism in alpine territory. Indeed, livestock productions need to be integrated with a more sustainable form of tourism (e.g., agritourism, ecotourism and green-tourism) to achieve profitable synergies, thus avoiding trade-offs. This is particularly true when on- and off-farm activities can be well harmonized in the same household, by ensuring farmers better conditions of life. From this point of view, shorter distribution channels, which would take advantage of closer contacts with customers, could be interesting. Furthermore, considering the product quality diversification as a new alternative way to create value and reduce risks, innovative schemes of networking and cooperation among farmers and institutions could be thought to produce, certify and distribute products [4].

All this considered, some authors [1] emphasize the need to find solutions of more sustainable PLSFS in some prior areas, trying particularly to deepen family farms analysis, both in terms of internal factors and in terms of external ones to detect the “determinants of complementarity or displacement between tourism and agriculture” that may favor sustainability [1].

The aim of our research is therefore a further analysis of the main characteristics in the internal and external factors (human, social, natural, physical and financial capitals) of the farming organizations in the European Mediterranean mountain regions, and in particular in the Italian alpine mountains, and how these inputs can be combined to generate innovative and sustainable business models (BM), with the aim to promote the coexistence of primary and touristic activities.

In particular, our hypothesis is that a coexistence of on- and off-farm activities within the same farm is possible and desirable, since it would permit the continuity and the sustainability, not only of the single organizations but also of many mountain areas globally considered, and this can be achieved by respecting some antecedent conditions, such as the participation to networks of farmers and institutions. The results of our research are useful because, on the one hand, at a micro level they suggest to the organizations that operate in the PLSFS how to innovate their BM to better compete and survive and, on the other hand, at a macro level, they permit to understand how local, national and international norms and policies should be oriented in order to guarantee the sustainability of farming systems and of touristic activities in mountain areas. Our empirically-based hypothesis sets therefore these research questions:

RQ1: What are the main characteristics of farms belonging to the PLSFS in the European Mediterranean mountain regions, in terms of internal and external factors?

RQ2: Are farms belonging to the PLSFS in the European Mediterranean mountain regions able to adopt innovative and sustainable BM that make coexistence of on- and off-farm (i.e., tourism) activities possible?

By focusing on a specific case study, represented by a particular mountain area in the northwest of the Italian alpine region, the Lanzo Valleys, we analyzed the cheese producers association of the valley, the Toma di Lanzo Producers Association, and investigated the BM of the family farms belonging to the association itself. We adopted multiple sources of evidence: official documents and information publicly available (see Appendix A), concerning the Lanzo Valleys and the Toma di Lanzo Producers Association, along with semi-structured interviews to key informants (see Appendix B).

By drawing upon the notions of Business Model Innovation (BMI) and the relevance of BMI for sustainability [5], this paper discloses how an innovative change in the PLSFS (e.g., the adoption of innovative BM that make the coexistence of on- and off-farm activities possible) can be held through the availability of relevant internal and external inputs (resources), and by an intense networking among institutional actors and organizations concerned. Therefore, this paper adds value to recent literature by focusing on how actors should act within a network to achieve an innovative change and improve the sustainability of the whole mountain areas. Furthermore, our article has practical consequences for farms belonging to PLSFS (e.g., breeders and cheese-makers), still characterized by a historically consolidated “sustainability”, because it sheds light on the requirements that allow the continuity of the farms themselves. Lastly, this contribution has collected the real needing at the human dimension level as useful suggestions for the policy of less favored territories.

Section 2 presents an overview on PLSFS and the theoretical background adopted to analyze the empirical material collected through the case study. Section 3 depicts the details of the methodology design adopted to conduct this research, distinguishing between the research setting and the research method. Section 4 illustrates the findings, while section five analyses and discusses results. The paper ends with conclusions, limitations and proposals for future research.

2. Theoretical Background

2.1. PLSFS Overview

PLSFS—also called grazing, pastoral, agro-pastoral or agro-silvo-pastoral systems—make use of lower yielding forage areas which include semi-natural, semi-improved and improved grassland both on the farm holding and sometimes on other land at densities as low as 0.15 Livestock Units per Hectare (LU/ha) to 0.6 LU/ha. The most extensive systems—cattle, sheep, horses or goats—utilize semi-natural vegetation with seasonal transhumance still found locally” [6] (p. 82). They represent a still significant sector in the Euro-Mediterranean mountain areas, especially considering the environmental and socio-cultural functions exerted by family farms belonging to these systems. These activities are currently defined as “a land use to enhance and a resource to preserve” [7] (p. 11), after a long period during which they “were mainly considered as a limiting factor for the development of more efficient livestock production systems” [7] (p. 11) or of more remunerative tourism activities (e.g., ski resort). Unfortunately, the depopulation and the abandonment of mountains during the last thirty years, particularly produced by policies promoting an intensification of agriculture and livestock farming (see the Common Agricultural Policy (CAP), in use in the European Union before the 2013 reform, that has implicated a capital intensification in agriculture, due to the presence of premiums paid to the farmers on a per head basis), have caused a gradual decline of PLSFS and a decrease in the number of farms. Nowadays the survival of small pasture-based family farms has become a very important issue in agro-ecosystems science [8], since they are recognized to be positively influencing the biodiversity and the sustainability of whole mountain areas. The intensification of the agriculture and the abandonment of mountain areas are indeed both considered as the main causes of biodiversity loss, as mentioned in the Biodiversity Strategy to 2020 of the European Commission (2011).

Since the PLSFS deliver multiple outcomes, they are currently considered multifunctional [9]. Indeed, they allow not only achieving goods for the family survival or for the market, such as food and fiber, but also public goods [6], such as biodiversity, fresh water, soil quality, landscape, erosion control, climate regulation, recreation and eco-tourism, aesthetic and spiritual values. Public goods are not explicitly understood by the farmers as important, since they do not have generally a market price, and a public intervention is therefore very important to regulate and support their provision. Furthermore, measuring of these outcomes is very difficult and, consequently, agro-environmental policies usually tend to ignore them [9]. However, the presence of PLSFS is very significant in “shaping a rich variety of landscapes and habitats, as well as preserving a cultural heritage that makes rural areas attractive for the establishment of enterprises for the tourist and recreation business” [1] (pp. 50–51).

Indeed, under a Europe-centered approach [10], PLSFS multi-functionality is considered as the way to preserve the agricultural landscape and to develop rural and mountain areas, especially through the coexistence with tourism and recreation. This is why the development of adequate policies and regulations are necessary to support the sustainability of mountain areas in Europe. Planning a mode of complementarity between the primary activity and other activities in the alpine regions—in particular considering the potentiality of coexistence in the same farm or at a local scale of PLSFS with agro-, eco- and green-tourism—is therefore particularly required.

In particular, as affirmed by Broccardo et al. [11], agritourism could represent an innovative strategy for family farms belonging to the PLSFS. This would diversify their business, by including touristic activities in addition to the agricultural and cheese making ones. There would be benefits—economic and non-economic ones—for farmers, tourists and mountain communities [12]. Even if “an acknowledged definition of this phenomenon does not exist in international tourism research [...], agritourism in Italy is defined by the current regulation (Law n. 96/2006) as the *hospitality activities practiced by agricultural entrepreneurs [. . .] through the use of their firms, in connection with the farming activities, the forestry-related activities, and livestock activities, with the limitation that agricultural activities prevail (over the agritourism activities)*” [11]. Through agritourism, tourists may benefit from the atmosphere of the pastoral life and, while, at the same time, farmers seize the opportunity of increasing their turnover while taking care of the more traditional business with their families. In the meantime, the mountain heritage is preserved, and the economic situation of the territory and municipalities improves [11].

Therefore, as international literature affirms, agritourism should be considered as “a sustainable strategy: in its stated objectives, it promotes the conservation of a broadly conceived rural environment through its socioeconomic development” [13]. Then, it can fill the “missing link in a quality territorial system that integrates agricultural, tourist, environmental, cultural and historic resources” [13]. It likely represents “the most radical product innovation that has ever concerned the national agriculture” [14] and can add value also to the more traditional forms of pastoral farms [14]. Furthermore, agritourism offers opportunities for business, while conserving and developing rural landscape and biodiversity [14]. In other words, agritourism—similar to other types of eco- and green-tourism—should be considered as a peculiar form of innovation in the more traditional pastoral BM.

2.2. Sustainable BM: The Theoretical Framework

Although BM topic is widely debated in literature, there is no unified definition of such a concept. Indeed, even if various articles have been published about, as the literature review made by Zott et al. [15] underlines, they deal with this subject by adopting different perspectives. Its conceptualization is therefore not unique. However, according to the approach followed by this research, we can define BM as a system through which an organization creates, delivers and captures value for itself, its partners and customers [16,17]. Adopting this definition implies that the BM can be meant as an additional unit of analysis for managerial studies [15] including both a focal firm with its suppliers and its customers, on the one hand, and other institutional actors variously involved in the system itself, on the other hand. This concept/notion of BM is therefore to be integrated with that of sustainability, precisely because amongst the pillars of sustainability there is the need for firms of becoming “systems concepts”, that implies trying to go beyond organizational boundaries and embracing different actors of a specific context [18]. For this reason, some authors started to adopt the term “sustainable BM” as a new concept including a focal firm and its own stakeholders [15], both oriented to achieve the common goal of a systemic and sustainable development.

A sustainable BM “is the activity system of a firm which allocates resources and coordinates activities in a value creation process, which overcomes the public/private benefit discrepancy. Therefore, a BM for sustainability is the structural template of a business logic which creates the business case for sustainability” [19] (p. 56). Furthermore, Stubbs and Cocklin (2008) [20] consider

a sustainable BM as an holistic model to make business, based on structural and cultural skills of a firm, all required to obtain sustainability both at the firm level itself and, while collaborating with key stakeholders (customers, suppliers, partners and institutions), at the system level that the firm is part of.

Under this perspective, sustainability may represent an element leading to innovations within the firm and driving organizations to change their more traditional BM [21]. Consequently, this topic is attracting a growing attention [22] and there is a general call for rethinking BM trying to make the sustainability an objective. However, even though there is an increasingly richer theoretical body that consider sustainability and BMI as complementary [5,23–25], the relationship between sustainable BM and innovation has to be thoroughly analyzed. In particular, the introduction of the issue of sustainability in a traditional BM can be considered as a kind of innovation in the BM itself [5] and the more proactive is the innovation (it usually implies the reengineering of the core processes of the firm toward a sustainable mission), the more effective will be the strategy for obtaining sustainability. BMI encompasses both innovations in technology, products or processes, and transformations too in cultural values achieved through the innovations themselves and brought to the market [15,26].

The body of literature about practical applications of BMI is not so developed. A literature review by Lambert and Davidson [27] on empirical analysis of BM and BMI, affirms that research on BMI is increasing but the cognitive gaps are still remarkable. At the same time, the studies on sustainable BM are still in their infancy [24] and the literature calls for more investigation, above all with empirical cases of firms that try to make a focal firm complementary to its stakeholders and, more generally, to the institutional context [5]. Our attempt is to try to fill this gap in the literature, by conducting an empirical research on the more traditional BM belonging to the PLSFS, which are evolving by pursuing innovations towards sustainability [28]. In doing so, we adopted the framework of Bocken et al. [5], which has revised the previous frameworks of Osterwalder et al. [16] and Richardson [29], and identified three main components through which a BM can be analyzed to study the sustainability issue: value proposition, value creation and delivery, and value capture (Figure 1).



Figure 1. Business model's main components. Source: Bocken, et al., 2014 [5] (p. 43).

The value proposition refers to the role played by values and by the exchange of values among stakeholders in a system of organizations, expending the manufacturing of products or the delivery of services as a medium. In traditional BM, the main attention was drawn upon products and services developed to gain an economic value creation. In innovative and sustainable BM, on the contrary, priority is given to the intangible values developed in coherence with a holistic perspective that encompasses financial, environmental and social objectives. According to a sustainability dimension, indeed, the equilibrium among financial, environmental and social perspectives becomes relevant in determining values major for the market and its customers.

The value creation and delivery are the consequential logical phases required to make the value proposition concrete and operative. In particular, the values become operative and concrete when organizations—part of a system of actors—are able to establish and manage long-term relationships with multiple subjects who share the sustainability aim with them.

The value capture is represented by the way an organization consumes resources and creates values by selling products and services. It determines the framework of a specific cost and revenue structure. Values should be translated into practice and captured by firms through a system in which revenues are achieved and costs are covered.

On this basis, we investigate how farms in the PLSFS have built their more traditional BM and how they are trying to innovate according sustainability principles. Specifically, we illustrate the three BM's components and discuss difficulties and challenges faced or to be faced to achieve innovative and sustainable BM.

3. Materials and Method

3.1. The Research Setting: Piedmont Mountains

This research investigates BM adopted by farms operating in the Lanzo Valleys, Piedmont Region, in the northwest of Italy (see Appendix C). For a long time, the Piedmont mountains have been described with the image of “The World of the Losers” by Revelli [30]. Depopulation of the valleys concerned started from the end of the nineteenth century and culminated in the Second World War. The mountaineers, multifaceted figures managing and protecting their territory according to their widespread agro-forestry-pastoral skills, had indeed become mostly workers in the factories of the nearby plains [30].

Some territories have found, since the 1970s, together with the diffusion of tourism of purely winter mass, the opportunity to affirm new models of territorial development. However, these models often ignored the culture and cultural landscape of the mountain [31,32].

Fields, grasslands, and pastures below the arboreal vegetative limit suffered progressive abandonment and uncontrolled afforestation. The agricultural land diminished and with it the wealth of knowledge and the cultivation varieties that characterized the alpine communities, even on their identity plane [33,34].

Through the regions' institutions, the mountain policy has become important and numerous institutional attempts have been made to promote and enhance the opportunities to take up residence and to develop private entrepreneurial activity. In some regions of the alpine arc, the trend of depopulation has reversed with the coming of new residents, particularly attracted by the idea of a higher quality of life [35]. Therefore, more and more private individuals invest in traditional building renovation and in some cases start productive entrepreneurial activities.

About usable agricultural areas, Piedmont is the region that registers a strong positive value of the countertrend (+13.1%) [36]. However, the life of new inhabitants—often setting up projects or being simply new country people [37]—clashes when realizing their dream: the difficulty of social inclusion in the local communities, the lack of knowledge often vertically transmitted from father to son, bureaucracy and an institutional uncertainty is not an easy context for taking up residence.

In Piedmont 553 municipalities are classified as mountainous, often characterized by few residents in face of important surfaces of the municipal territory. In the recent history of Piedmont, at first the merging from 48 to 22 mountain communities, then their suppression (L.R. 11/2012, regional law), and the difficult changeover with the new authorities of united municipalities (L.N. 56/2014, national law) have placed difficult conditions for over local institutional planning. Moreover, the application of the National Stability Pact to the small mountain municipalities starting from 2013 has complicated the associative pathways, bringing considerable troubles in the government of the territories and on the investment plans [38].

The possible framework, with new united municipalities' authorities (Piedmont Regional Law L.R. 3/2014), with Local Development Program (PSL) and with Local Action Group (GAL) activities, will perhaps be a favorable context to reorganize mountain policies [39]. For now, the local administrations are hoping for forms of taxation of advantage and bureaucratic simplification [40].

In this uncertainty, some old and new mountain farms represent an opportunity to raise a territory of interest on a national and European scale (European regional strategy EUSALP and Italian strategy for the internal areas SNAI). Processes of contrast to depopulation are being enacted: the attention of funding programs, especially the Rural Development Program (PSR), the law on the recognition of ecosystem services (L.N. 221/2015, national law), the fight against commercial desertification promoted by UNCEM (National Union of Municipalities and Mountain Communities, 2017, being financed by supplementary funds for the mountain triggered by the Stability Law, 2013), the law of land resettlement are some elements of understanding the possible new regulatory framework (Piedmont Regional Law, L.R. 215/2016).

Against the partial impotence of institutions, the investing subjects are often also bank foundations (e.g., Project Turin and the Alps of Compagnia di San Paolo) or other associative forms among private individuals, such as cultural associations with the aim of purchasing and renovating mountain villages (e.g., Associazione Canova in the Ossola territory and Torri Superiore in the Liguria hinterland), integrating public funding measures (PSR 2007-2013, measures 322) [41].

Considering the extent of this area, substantial actions of territorial marketing and chain-products are needed. Individual livestock pastoral farms, often family-based [42], cannot compete and therefore not even survive in the described context. In some Piedmont valleys, associative management models are experiencing, turning into more complex cooperative structures.

3.2. *The Research Method: The Lanzo Valleys and Toma di Lanzo Producers Association Case Study*

In coherence with the goal of this article, the case study methodology was used and, in particular, given the purpose of the research, an exploratory case study [43] was prepared. The case study of the Lanzo Valleys was identified, because it is a revelatory example [44,45] of various elements related to the sustainable BM. This case study is significant because the Lanzo Valleys are one of the four pilot areas of Piedmont for the national strategy for the internal areas (SNAI). SNAI is a policy of territorial development and provides place-based strategic actions for the protection of the territory, the enhancement of natural resources, agro-food systems and handcrafts.

In particular, in order to contribute to the understanding of BM oriented to a sustainable and integrated development of the territory, this article analyses the case of an associative reality, the Toma di Lanzo Producers Association, founded in 2013. With its ten members, it enhances the summer productions in pastures with grazing animals, from 1 June to 15 October, and milk transformed over 1200 m a.s.l. (only one member is represented by a cheese factory, which was not considered for this study, because the milk used originates mainly from intensive breeding of lowlands and low hills).

The Toma di Lanzo Producers Association with its farmers represents a relevant case study for several reasons. Firstly, it is an attempt of networking among small family farms to develop an upper structure, able to promote the product (i.e., cheese) and identify innovative solutions of competing on the market, included ecotourism.

Secondly, the farms that participate in the association operate in the high mountains during the summer and allow the proper management of the pastoral resource, that is, cultural heritage of the valleys, as generated and maintained by the centuries-old pastoral activity of the mountain people. Their activity therefore represents a human presence in the mountain, and a key role in the construction of diversified BM, seasonally and interconnected with other touristic systems.

Thirdly, in the Toma di Lanzo Producers Association, the perpetuation of mountain agricultural activities is played on the level of social and ecological, as well as economical sustainability [46]. To contribute to the economic viability of mountain activities, innovation and sustainability are promoted to enhance the natural and agricultural resources of the territory [46]. Indeed, the Association aims to help innovating family livestock farms, strongly structured on traditional organizations, not only in their production chain but also in the territorial marketing sector and touristic promotion.

The adoption of this explanatory case study [47] has the purpose to provide a deep explanation of the various components of a sustainable BM, analyzed in the selected framework [5], which is

therefore used as an input of the research itself, to understand how the Lanzo Valleys, and above all the farms operating in the PLSFS and belonging to the Toma di Lanzo Producers Association, are trying to innovate their more traditional BM toward sustainability principles.

This research integrates multiple sources of information in order to obtain a comprehensive understanding of the empirical case study and strengthen the reliability of the findings. The first source is represented by all the official documents and information publicly available (see Appendix A), concerning the Lanzo Valleys and the Toma di Lanzo Producers Association. In particular, we have chosen this literature with the aim of investigating the economically depressed mountain area of Lanzo Valleys, which in recent years is trying to implement a local development program. Documents and information about socioeconomic conditions of the territory and about national and European programs and projects for the re-launching were considered. In addition, we also used documents concerning the case study of Toma di Lanzo Producers Association, such as the statute. The second source consisted of eight face-to-face and semi-structured interviews conducted with the key informants (see Appendix B). In particular, we have chosen to interview exponents of rural world having a direct or indirect influence on the Toma di Lanzo Producers Association. One of the interviewees represents the mountain community (Lanzo Valleys Mountain Community Technician), one is the President of Toma di Lanzo Producers Association, one is a representative of the Turin Provincial Farmers Association (a Technician), and five are representatives of the family farms belonging to the Toma di Lanzo Producers Association. The unique cheese factory, member of the Association, producing the main quota of Toma di Lanzo all year round, was not considered for this study. In particular, these breeders and cheese-makers move to the alpine pasture (over 1200 m a.s.l.) from 1 June to 15 October. Indeed, a fundamental aspect of the research was the link between the production process and the landscape, since the grazing activity preserves the herbaceous surfaces. The chosen interlocutors belong to a network of cheese-makers, formalized in an associative form and projected to the enhancement of their product. They represent the population who did not abandon the valleys and maintained a productive activity started by their grandparents. The breeding in the mountains is a practice strongly rooted in the territory but equally conservative and modestly innovative. In the study, we realized that farmers who were members of the Toma di Lanzo Producers Association ensured good managerial skills and were willing to innovate their business in tourism, education and society. Among the members, different subjects were identified by gender and age of the breeder and for the characteristics of the farm, in order to acquire different viewpoints and seek common strategies. The interviews were conducted directly by one of the authors, reaching the breeders in the summer pastures, within the production context. The questions for characterizing the farms were made directly, gathering the information on paper notes, while the second part of the interview was recorded with a small apparatus, always looking for the good predisposition to dialogue and encouraging the freedom of critical expression. The interviews were compared with each other, and with other information collected, trying to overlap considerations and expectations of interlocutors.

Appendix B details the list of people interviewed, and, in Appendix C, the interview outline can be read.

Data were analyzed by using open and axial coding techniques [48,49] in order to identify and correlate the gathered qualitative data to the research questions. Attention was paid to code separately the groups with objective data and the groups with subjective ones, based on perceptions and opinions. The analysis combines inductive with deductive thinking. First, the authors read the documents and the transcripts of the interviews many times, with the aim of deeply understanding their content. Then they provided notes about the emerging observations, and these notes were translated into open codes. Finally, the researchers compared the individually achieved results to verify their consistency. All inconsistencies were discussed and solved. Through axial coding, relationships among the open codes have been identified and then grouped in holistic theoretical concepts and categories. Finally, these categories have been linked to each other in order to provide a coherent explanatory scheme.

4. Findings

This section is structured in two paragraphs. In the first one, a description of the peculiarities of the Lanzo Valleys is provided, with some insights on both qualitative and quantitative data, in order to allow the reader to understand the relevance of the territory and of PLSFS for the whole region. In the second paragraph, a deep analysis of the results concerning the characteristics of the farms belonging to the Toma di Lanzo Producers Association is presented, in order to comprehend how these BM can improve the sustainability of the whole system.

4.1. The Lanzo Valleys and the Toma di Lanzo

The three valleys that converge to Lanzo are one of the nearer mountain territories to the city of Turin and, for this reason, there have been always important socio-economic relations among them. Indeed, the city of Turin, where live about 1.5 million inhabitants, is only 30 km from Lanzo and 60 km from the highest municipalities of the valleys. It is therefore important to consider the information about the exchange of goods and services between the city and the mountains. In a recent study [50], an attempt was made to quantify the amount of average annual trade for breeding practiced in the Turin province mountains. As a reference territory, 150 mountain municipalities or partially mountain ones (on 315), were considered, occupying 60.5% of the area. Important data about this territory are the following [50]:

- 15,100 t of bovine milk conferred on mountain cheese factories and 2900 t of bovine milk cheese sold in the mountains, for a total value of 22.5 million euros;
- 3528 t of beef, for a sale value at the price of 14 million euros;
- products of the sheep–goat breeding (milk, cheese, meat) worth 9.5 million euros; and
- about 0.150 t of honey, and other minor animal products for a value of 2.7 million euros.

Therefore, the animal production in the mountains for the lowland areas has a value of 48.7 million euros/year and the Lanzo Valleys, with an area of 784.89 km² and with a density of 49 inhabitants/km², occupies 11% of the provincial area and 19% of the mountain surface considered in the research.

The Lanzo Valleys, since the nineteenth century, have also been the subject of important touristic development [51], above all skiing and residential summer. This development however did not prevent them from being involved in a demographic depopulation during the last century that completely affected the Piedmont mountain territory. Nowadays, the inhabitants are mainly concentrated in the villages of the valleys main axis, while the significant settlements on the slopes, linked to the agricultural and pastoral system, are mostly abandoned. Between 1978 and 2015, Bätzing [52] evidenced a progressively increasing loss of elements of the anthropogenic landscape and the gradual afforestation of meadows, pastures and terraced fields.

Through the results emerged with the analysis done in the SNAI pilot area, it appears how the Lanzo Valleys have a clear vision of development, they have already undertaken a series of transformations, especially in the tourism sector, but not reaching the thresholds necessary to stop the depopulation of the high valleys [53].

From a mainly residential kind of tourism, a progressive modification has been undertaken by investing in the diversification of healthful activities, in the enhancement of the widespread architectural heritage and in the characterization of natural resources, in order to create a touristic offer in the outdoor. Little attention has been reserved to the sale of tourist products, as evidenced by the rate of tourist accommodation (see the Alpine Space Project “Alpine Building Culture” AlpBC).

Among the strategically noteworthy opportunities, the enhancement of quality in agro-food productions may improve economic development, justifying a particular landscape policy. In particular, Piedmont mountain region has a long tradition of breeding and cheeses production, but the development of intensive breeding farms in the plains has led many farms to a production conversion, abandoning wholly or partly the production of cow’s milk to favor meat production (e.g., cow/calf system).

In addition, in the Lanzo Valleys, the livestock tradition has always been very important and it concretizes in dairy production of Toma di Lanzo. This particular product is a seasoned cheese with semi-hard paste and produced with raw cow's milk, or not pasteurized, originating only from the municipalities located in the Lanzo Valleys, Ceronda and Casternone. Therefore, the municipalities in which it is possible to regulate the production of the Toma di Lanzo cheese are 25:18 of these are classified as mountain and 7 hill areas. According to the data from the general census of Agriculture 2010, in these municipalities 402 livestock farms are present, 279 of them breed cattle, mainly dairy, overall 4558 LU. In the mountain municipalities, the farms are 224 (80%) for a total of cattle equal to 2399 LU (53%).

The presence of producers of Toma di Lanzo is difficult to be quantified because of a widespread production of cheese in mixed contexts and due to the family character. In order to support the promotion and valorization of the product, characterized by a strong local identity, the Mountain Community of the Lanzo Valleys in 2009 drew up a production specification. This one included two types of production: the Toma di Lanzo produced all year round in the family-run valley cheese factories and the Toma di Lanzo produced in the alpine pasture from 1 June to 15 October, with grazing animals and milk transformed at altitudes exceeding 1200 m. For the production of this last typology of Toma di Lanzo it is compulsory a feeding exclusively based on mountain pasture grass.

Toma di Lanzo therefore has procedural guidelines of production and trademark for sale and has been recognized as a traditional agro-food product. Some livestock farmers have decided to adopt the guidelines and associate themselves in the Toma di Lanzo Producers Association. In 2017, it has nine farms and one cheese factory of valley floor, located at 440 m of altitude. Most associated farmers remain in the mountains during the summer months and move to the plain in the remaining months of the year. Their annual farm turnover is about 50,000 euros per each.

A recent study correlated to the European project AlpBC has highlighted some critical aspects in the development actions of agro-food chains. The issues are obviously not represented by the quality of the products—i.e., raw material and processed products—but rather by the capacity/willingness to build competitive strategies, able to give sustainability to the sector. Even when several upper-municipal bodies (e.g., the GAL and the Mountain Community) have promoted initiatives aimed to present the products of the Valleys in different contexts, for example, in the commercial area within the Juventus Stadium in Turin, the local producers have not considered the offer.

The gradual abandonment of agricultural activities by the inhabitants of the valleys and the advance of the urbanization in the areas closest to the city have drastically reduced the utilization of the cultivated surfaces (PSL of the Lanzo, Ceronda and Casternone Valleys). A large part of meadows, pastures and grasslands were abandoned (−70% in the mountainous areas of Lanzo), with the consequent spontaneous reforestation and shrinkage of mountain farms (−49% of cattle heads between 2000 and 2010).

The GAL through the PSL grants support to the establishment of new micro-enterprises, operating within the typical artisanal chains, including agro-food productions, expression of local culture and traditions such as Toma. There are also active measures meant to diversify agricultural holdings activities within the tourism sector.

The enhancement of a production chain, such as Toma di Lanzo, can be therefore functional to the construction of an economic development model of the valleys and the rehabilitation of its landscape. It becomes important, however, to understand how to integrate the traditional actors with the new subjects that will be structural in the realization of the plan.

4.2. *The Family Farms and Their BM*

The typical farms of Toma di Lanzo produced in the alpine pasture from the 1 June to 15 October are familiar, based on the entrepreneurial personality of the farmer. These are highly traditional businesses, where breeding has been practiced for several generations. Milking is done twice a day, evening and morning, in some cases is manual and in other ones is mechanized. The cheese is produced

in the mountains according to the regulations in force. After the maturing period (from 40 to 60 days), the cheese is sold or directly distributed by the farmers at shops in the surrounding territories of Lanzo. Their products arrive only marginally in Turin market.

In the remainder of the year (16 October–31 May), most herders move to the plan and stop producing cheese, preferring to confer milk to big milk factories. Only those who remain on the territory, in the valley floor, keep producing cheese, and this is the reason for which since 2016 a third type of brand has been designed by the disciplinary, the “Toma di Lanzo of high valleys”.

Farms in the mountains pastures, even when rented, are present in those places for a long time and have a direct interest in maintaining the quality of the pasture. They are indirectly affected by the external disturbances due to important investors who rent large pasture areas to exploit the economic incentives made available by rural development programs. Indeed, the action made by these investors alters the market for pasture rentals and often addresses unsustainable breeding for the environment.

“For them the important thing is not keeping the mountain well or feeding the animals. The important is the economic contribution that they will be given. If I manage well, the pasture is useful to me” (Farmer #2).

Farmers are mainly worried about the quality of the livestock context, that is the breeding conditions should be optimal and respectful for the welfare of their animals. This aspect is connected to the meaning of living those places: “We keep the mountain well because we have always done it. Where we can, we fertilize, clean the edges of the swards . . . it is a laborious and unremunerated work, but it is done for us, to have a good pasture” (Farmer #2).

This action of guardians of the landscape is therefore closely linked in an intrinsic way to their profession: “By force we do the work of maintenance, because if not . . . Every day I have always with me the bill hook, to make fire wood, to keep clean and remove some shrub. However, those who in the mountains do these activities are increasingly rare, most of them take care of the mountain and let go everything” (Farmer #5).

On the one hand, there is the awareness of a particularly disadvantaged trade: “This work is too much difficult, in Turin they do not understand the life that we do here” (Farmer #5). On the other hand, everyone exalts the passion for this profession: “Being a transhumant farmer is a choice of life. I am willing to earn less by doing this life rather than giving up the freedom that this job gives me” (Farmer #2), “I would like my family to keep staying here; it was a dream to achieve this result” (Farmer #4).

Nonetheless, it is the same freedom that makes farmers choosing life in the mountains binding them to a job that has no interruptions, throughout the period of activity. The generation turnover is not sufficient to ensure a constant presence in the mountains: “Young people do not survive with what is produced” (Farmer #4), while Farmer #5 says: “Now we are 10, but in 10 years from now we will be only 5 of us. This craft is not easy and most of the houses are ruining. If they don’t give us something, we can’t keep go on”. Farmer #2 declares: “Everyone says the mountain is abandoned, but if they don’t help us, how can we do?”

It is probably the vision of “The World of Losers” described by Revelli [30], strong in their own individuality, custodians of traditional knowledge and culture of the place. “This craft is so much tied to tradition. Anyone in mountain farms can say that before her there was already her dad and before her grandfather again” (Farmer #1).

The tradition as a value can be also appreciated through a positive relationship and collaboration among farmers, as the Farmer #3 affirms: “I keep in touch with the other breeders, especially those associated, and we exchange information each other on the cheese yields, prices, hay and pasture. If I don’t have enough product, I ask them for it, but at the same time, if I’m not able to satisfy somebody, I address them to other breeders, not to the breeder near me, but to the other members of the Association, who respect the cheese-making regulation”.

The influences from the outside have been highlighted several times for both positive and negative causes. In particular, the exasperation of controls has been reported, often because they are defined

for organizations working in other contexts: “They thought of making the cheese factories at 1,800 m of altitude as they were in the plain” (Farmer # 4). Anyway, Farmer #1 believes that “compulsory investments in improving production assets, such as the creation of a tiled room for cheese making, has been heavy, but now it is better . . . ” Indeed, the modernization of the structures was necessary to be operational according to the norms, but this element still represents a relevant economic difficulty. The economic contributions recognized by the institutions to small farms are barely sufficient and do not allow an equal competition with external actors, who exploit the system of contributions in an artificial way. This difficulty is to be attributed to “those who are allowed it” (Farmer #5). Also with reference to nature conservation policies, there is a feeling of impotence: “If even the wolf goes out of control like the wild boar, all is over” (Farmer #5).

The traditional nature of the farms and the perspective of the farmers, projected exclusively to their production processes, represent an apparent limit to their development in the scenery of the Lanzo Valleys. “The poor ability of farmers to promote themselves as a network and the failure of a previous cooperative experience among Toma di Lanzo producers are elements that demonstrate the difficulty of promoting the territory through the local cheese” (Lanzo Valleys Mountain Community Technician). In some farms, this approach results in a lack of awareness of their potential: “I do not think that a hiker is interested in visiting the alpine farm and the life we do” (Farmer #5), while Farmer #4 says: “Breeding animals in the mountains is no longer recognized as a value”. However, through the promotion of the product their opinions are broader: “I see it possible to tie a product to the territory, today we begin to recognize this value” (Farmer #5), while Farmer #1 says: “The challenge is to be abreast with the times. The main goal is to be known, having a good product and the contact with people who will return to buy the product”, and Farmer #4 declares: “If they believe in what I sell, they’ll return”.

Everyone disagrees with the abolition of the Mountain Community Authority and with the relevant absence of services that the Authority provided for technical assistance and for the promotion. Farmer #4 affirms: “Knowing the territory is a problem of the Valleys” and this is demonstrated during the scarce participation in the small village festivals where “there is no tourism that comes to see us”. However, the mountain municipalities organize important festivals with numerous accesses, but they do not meet the needs of the farmers “because they are performed in July, when the Alpine Toma di Lanzo cheese is not ready and often local producers do not even participate” (Farmer #1).

In other cases, some local private initiatives emerge, as those of groups of hikers who organize walks that include tasting at the farms and the opportunity of buying Toma di Lanzo cheese, in areas nearby to the restaurants located in touristic places. The opportunity for local initiatives of proximity, such as the realization of summer camps for children at Farmer #1 alpine pasture, represents for the farms a form not yet structured of collaboration in the local area, with a visit to the production chain and other activities of business tourism. Some municipalities have recently launched network projects within the economic activities of their territory, to promote the system of local tourist opportunities, including producers of Toma di Lanzo.

In the 1980s, an attempt was made to promote the tourism in the Valleys through the gastronomic itinerary of Toma di Lanzo, which involved producers and restaurateurs and that was intended to get the Denomination of Controlled Origin (DOC) for this cheese. This initiative remained active on the will of the individual restaurateurs, but lost the promotion of the territorial system.

Nowadays, the promotion of Toma di Lanzo through a trademark registered in 2009 and the foundation of Toma di Lanzo Producers Association in 2013 represent a new opportunity, not only for the cheese, but also for the Valleys. Farmer #3 is one of the funder of the Association. He affirms: “I tried to engage myself to promote the Toma, but I could not. I am too busy with the job in the farm. However, the current President is following well the Association. She has a cheese store and she is not a breeder. If you have animals you can’t be proactive in the Association, while she has more time. We hope to involve more and more the other breeders, when they will see the results. Now there’s a mentality . . . If you have to work, you have to adhere to the cheese-making regulations. Now, many

farmers do not make more cheese, they only breed for producing calves and meat. That farm for example makes no more cheese, but it has about 200 cows for meat. It is another way of pasturing . . . Everyone has its own economy: they have more benefits from subsidies than from milking". The less innovative producers have joined the association by simple convention, not fully realizing how much this opportunity could help them. Farmer #4 for example declares: "If the product is good, you do not need the brand. The brand is used to make oneself known. If there is a consortium of cheese collection, as we tried to do in the past, it would be better".

Surely, the experience at the farms remains an extraordinary opportunity for conscious holidays in mountain areas. Farmer #1 affirms: "Maybe, we want to improve too much with technology and then we lose simpler things. Even a week, without all the appliances, for children would be another thing". Farmer #2 states satisfied that: "On Sundays people leave from Turin to come here and buy cheese from me".

In her shop, the current President of the Toma di Lanzo Producers Association is responsible for the valorization, promotion and marketing of local products, from honey to mountain potatoes, with a very special attention for the typical agro-food product (Prodotti Agroalimentari tradizionali, PAT) Toma di Lanzo. In her vision, there is the possibility of promoting the development of the territory through typical products, but the difficulties are many. "It is necessary to convince individual and small productive businesses to converge on a larger and more solid structure, capable of supporting the territorial brand that is identified in the Toma di Lanzo. With the support of the farmers who live at high altitude, with their animals in the summer months, the management of the landscape, built and cultivated over the centuries, and the protection of the cultural heritage, are also safeguarded" (President, Toma di Lanzo Producers Association).

Farmer #3 represents a particular example of an already integrated BM, since he has breeding associated with structures for accommodation and restoration, as a typical agritourism. He affirms: "The farm once dealt only with breeding and it had 35 heads. Then, 32 years ago, I restored the building and it became a touristic farm. All production is absorbed by the restaurant or sold directly. And that's a big advantage . . . People appreciate it. There has been a difficult period, but now there is a greater attention to these realities, because the consumers taste has changed and people realized that there are products made in a handcrafted way. People come to the farm and then go for walking or cycling".

His farm is already an important hiking destination and he has activated promotional contacts with English tour operators and invited German publishers for writing guides. It has outdoor projects for summer stays for children with didactic activities related to the farm and the agricultural activities. Tourist packages are not yet defined but are being prepared. He is thinking to a wider territorial collaboration with the involvement of the hiking and cycling associations of the territory. He affirms: "There are opportunities for young people especially when they start the well-formed business and therefore know how to better manage the product. Traditional breeding has limits in business development and process. The Association of producers can be the solution, as all breeders could be encouraged by the brand".

5. Discussion

The aim of this paper is to contribute to the theoretical and practical debate on how farming organizations in the mountain regions can create innovative BM, in order to promote the coexistence of primary and touristic activities and the sustainability of the whole territory. We addressed two research questions: *RQ1—What are the main characteristics of farms belonging to the PLSFS in the European Mediterranean mountain regions, in terms of internal and external factors?* *RQ2—Are farms belonging to the PLSFS in the European Mediterranean mountain regions able to adopt innovative and sustainable BM that make coexistence of on- and off-farm (i.e., tourism) activities possible?*

To answer these questions, we focused a case study on Lanzo Valleys and Toma di Lanzo Producers Association.

To answer to RQ1, we adopted the framework suggested by Bocken et al. [5] and discussed the value proposition, the value creation and delivery, and the value capture components, as observed in the farms belonging to the Toma di Lanzo Producers Association.

The findings presented in the previous section unveil how, at the level of BM of single-family farms, there is a prevalence of values anchored to tradition, always projected toward sustainability concepts. Indeed, the farm's value proposition [5] aims at maintaining the quality of life that generations of mountain farmers have conserved. In particular, the prevalent value proposition consists in defending the merit of living together within the family, as expressed by generations, the bond with the land of origin, the passion for an intensive but full of satisfaction job, also linked to the relationship with and the respect for the animals and their welfare. Moreover, the value proposition includes the love for the place, really understood as an expression of a personal heritage of the mountain landscape.

Furthermore, a very important value is the pride for their handmade products, which allows them a direct control over the entire production process, from pasture utilized by their herds to the seasoned cheese. Complementary activities are part of the craftsmanship concept, appreciated by all breeders as a value. They include public goods [6], such as maintenance interventions on rural buildings, shrub invasion control, water containment, manure management through fertigation, and hiking-path care. Finally, the sense of belonging to a mutually supportive community emerges as a value that shares passion and difficulties.

In other words, the value proposition of the interviewed farmers encompasses the importance of the product (i.e., cheese), which is developed to gain a sustainable value creation, together with intangible cultural and environmental values. In particular, the intangible values shape the product, which becomes almost a tangible symbol of the same.

Any breeder is aware of how difficult and complicated is their work. Even young people do not escape this sentiment, and, despite the opportunity of achieving funds for starting up new activities, they often renounce because of the difficulties they will have to deal with. They feel lost and alone as they perceive they cannot pro-actively intervene. They see decisional centers and institutions far away, do not feel adequately represented, and face an objectively complicated reality. Therefore, they show a substantial resignation to events. They believe that the market is willing to consume products obtained by industrial and "anonymous" criteria and feel anachronistic with respect to this trend. Most of them do not believe that creating a synergy between the activity of breeder and tourist activities is the main value, although everyone is aware that tourism can be the only way to stay in the mountains as a survival economic solution. They generally fear tourism from the city, often characterized by a low respect for the mountain environment, because they still perceive it as a danger to the ecosystem [54,55]. They also believe that the citizen, though acculturated on the issues of sustainability, has a vision flawed by stereotypes, which does not allow really appreciating the values of the breeders.

For this reason, at the level of value creation and delivery [5], some of them are reluctant to promote their products and bring more tourists to the valleys. In addition, the distribution is limited to the commercialization of cheese in the valleys shops. Indeed, value creation and delivery consists essentially of production processes conceived and handmade, having as main objective the intrinsic quality of the product. Breeders constantly take care of management and maintenance of the pasture, as well as the care of the cattle, because they represent the essential conditions without which the quality of the product itself can be compromised. The concept of the product itself assumes special features, because the cheese is the tangible physical product that is also instrumental to the maintenance of a circular economy [56,57], which guarantees to the farmers the maintenance of their lifestyle. It cannot be denied that this form of closure could be partially attributable to the fear that an excess of promotion may also determine additional bureaucratic controls.

Some farms, where a certain opening to renew the most traditional BM [15] has been observed, represent an exception to this perception. The innovation goes towards making breeding complementary with tourist services (i.e., agritourism), ranging from accommodation and restoration to recreation. In this case, value proposition and, consequently, value creation and delivery, are enriched

with advantages such as the willingness to bring people back to the valley, if tourists are aware of their impact on the mountain environment and show respect for it.

The breeders who have enriched their vision along these lines may also well understand that agritourism can enrich their value capture [5] and, at the same time, increase the sustainability of the territory where they live. Indeed, in the case of a traditional BM, only based on pastoral breeding without complementary activities, the generation of revenue streams cannot adequately cover the flow of costs, and therefore this activity is likely to be unable to persist over time. The flow of revenues, indeed, is usually under-optimized due to the definition of sales prices, which often do not cover the production full cost. There are no indicators on the average selling prices practiced by farmers, but the widespread opinion of those who know the distribution process of Toma di Lanzo is the one above cited. Moreover, considering the flow of costs, it should be underlined how these firms bear a part of the costs that the community itself should support, ensuring public goods [6], which increase the cost of production. In addition, the dynamics of subsidies to the alpine pastures spoil the cost of renting grassland, which induce investors to rent these surfaces for speculative purposes.

In the case of BMI [5,23–25], which sees the coexistence of breeding and tourism, value capture [5] would seem to be able to guarantee a more durable survival to farms, increasing the flow of revenues by diversifying them.

We can eventually affirm that PLSFS in the European Mediterranean regions, even if characterized by the presence of traditional pure breeding BM, with some openness to new forms of complementary businesses, are trying to move toward a further form of innovation, correlated to a supra-farm dimension, which involves relationships among breeders, and between breeders and united municipalities, joined together in a common network, represented in our case by Toma di Lanzo Producers Association. The creation of this association is, indeed, mainly due to the need of breeders and other stakeholders to find, through the recognition of the brand and the enhancement of the product, a solution for the permanence in the valleys of breeders themselves and for the sustainability of the mountain territory. Through this kind of relationship, they would like to continue to produce Toma di Lanzo in the mountains, bringing people there and exploiting the extra-income to go on producing locally.

6. Conclusions

In the effort to fill theoretical gaps and simultaneously highlight practical benefits for the mountain territories, the aim of this article was to identify the main characteristics of the farms belonging to the PLSFS in the mountain regions, and to verify if their more traditional BM could be innovated to generate sustainability by integrating primary and touristic activities. By focusing on the Lanzo Valleys case study, and, in particular, on the farms that participate to the Toma di Lanzo Producers Association, our findings permit to realize how a concrete form of innovation (the coexistence of breeding with agritourism—that is, accommodation, restoration or other recreational activities) is possible. It should, however, be reinforced through a supra-farm dimension, thus maintaining the individual identity of single farms. Indeed, our findings and discussion highlight how the sustainable and innovative BM in the considered scenery is mainly represented by a system of farms, linked together in a collaborative relationship. In this sustainable BM there is not a focal firm with its own stakeholders [15], but there is a strong network of farms, whose common goal is to achieve a sustainable development.

The strength of this network consists in the common value proposition of the farms concerned, allowing breeders to preserve the cultural heritage [1] and, consequently, permitting to the mountain livestock farming systems to become attractive for a certain kind of ecotourism. This typology of tourism should be respectful of the principles and values of those who have been working for generations in the alpine farming [58–60].

Our research adds value to the existing literature and has some important implications for the economy of the mountain territories, within the community of producers of local products, giving motivations and indications to allow the continuity of breeders and cheese-makers. It has been possible to explore this process by reading and decoding innovative indications for the policy makers,

in order to maintain and encourage the community of producers, even in a perspective of sector renovation. New expressions and roles (e.g., as educators) of tourism, often unaware of the benefits of an agro-pastoral system, are possible thanks to the numerous relationships with the management and protection of a fragile region. The awareness of breeders and producers of a local cheese draws deep roots in the mountainous territory of the Lanzo Valleys and can ensure a revaluation of these figures so intimately linked to their native land.

Adequate policies and regulations can be based on our conclusions to support the development of associative forms and collaborative BM, including those territorial subjects active in the promotion of a downstream project (e.g., GAL) on a supra-municipalities dimension. This policy may unify the current territories of the Unions of Municipalities into a single territorial reality with its own financial resources.

This system concept should allow numerous initiatives of promotion of outdoor sports to be associated with cultural and gastronomic tourism to build integrated tourist packages for the stay in the valley [61–63]. Some of these models are present and active in other territorial contexts (e.g., Aosta Valley and Ticino, in Switzerland), but the peculiarity of the Lanzo Valleys and the proximity to the city of Turin can represent a particular laboratory, where it is possible to work managing the flows between the mountain and the city. The slow tourism program called BalmExperience—a proposal of sustainable alpine tourism—that was experienced in 2017 in the Upper Central Lanzo Valley represents an example. The current councilor of BalmExperience (Castagneri G.) has defined this program at a conference (2017) as the opportunity to “believe in sustainability for local well-being. Administering means making choices and these, if possible, must be consistent to be credible as well”. This approach is meant to integrate the traditional knowledge [64,65] of the mountain, especially that of the farmers who, through their craft, counteract the reforestation of meadows and pastures. A model of tourism development must be able to enhance their role not only as part of the tourist system, but also as an essential and structural component of the overall territorial system [66].

The focus on a single-case study in a specific territorial context (i.e., the Toma di Lanzo Producers Association in the Lanzo Valleys) could be read as a limitation in terms of generalizability of findings, especially because the sample of interviewees was not so numerous and some perspectives of analysis were perhaps under-investigated (unions of municipalities, single municipalities, etc.). In any case, the aim of this article is to pave the way to new and additional investigations about the relationships among farmers, required to create a holistic and sustainable BM for PLSFS, able to favor the development of the mountain territories in the alpine area. Thus, even if our single-case can be considered as significant and representative in relation with the research questions and the aim of the article, our purpose for future research is to make further investigations, adding new case studies and adopting a comparative lens to verify the generalizability of results.

It would be interesting to analyze case studies of other producers associations belonging to the same area (e.g., the autochthonous goat farming association in the Lanzo Valleys), or in other territorial areas and with different products (those for which little and bad communication is done).

That should be done through an adequate number of observations, always adopting the semi-structured interview as the main source of information, since it allows a richer and more productive dialogue with actors. It would also be interesting to tackle the theme of local products that favor biodiversity and the way a “different” typology of tourist may contribute to the sustainability of mountain valleys.

Acknowledgments: The Authors would like to thank for their support to the research: John John Battaglino (former Technician of the Mountain Community Valle di Lanzo); Marco De Agostini (Technician of the Regional Piedmont Breeders Association); Laura Chianale (President of the Toma di Lanzo Producers Association); and the Farmers: Mara Benedetto, Debora Perino Ceresole, Giuseppe Tomasino, Michelino Tomassone and Bernardino Troglia Gamba.

Author Contributions: The authors contributed full and equally to this work. Both authors contributed to research design and have read and approved the final manuscript.

Conflicts of Interest: The authors declare no conflict of interest.

Abbreviations

The following abbreviations are used in this manuscript:

<i>AlpBC</i>	Alpine Space Project “Alpine Building Culture”
<i>BM</i>	Business models
<i>BMI</i>	Business Model Innovation
<i>CAP</i>	Common Agricultural Policy
<i>DOC</i>	Denomination of Controlled Origin
<i>GAL</i>	Local Action Group
<i>HNV</i>	High Nature Value
<i>LU</i>	Livestock Units
<i>PAT</i>	Prodotti Agroalimentari tradizionali
<i>PLSFS</i>	Pasture-based Livestock Farming Systems
<i>PSL</i>	Local Development Program
<i>UNCEM</i>	National Union of Municipalities and Mountain Communities

Appendix A. List of Consulted Documents and Materials

Alpine Space Project AlpBC: Alpine Building Culture (2007–2013), www.regione.piemonte.it/territorio/iniziativa/dwd/volumeIT_WEB.pdf

Alpine Space Project Rurbance: Rural Urban Governance (2007–2013), www.regione.piemonte.it/territorio/iniziativa/rurbance.htm

Associazione Produttori Toma di Lanzo, Statuto, <http://tomadilanzo.eu/lo-statuto.html>

BalmExperience (2017) local project of sustainable tourism in Balme, Lanzo Valleys, www.mountainwilderness.it/balmexperience/balmexperience-laltra-montagna/

Comitato Nazionale Aree Interne. Rapporto di Istruttoria per la Selezione delle Aree Interne. Allegato D.G.R. del 30 marzo 2015, n. 21-1251, www.regione.piemonte.it/governo/bollettino/abbonati/2015/16/attach/dgr_01251_085_30032015.pdf

EUSALP Macroregional European Strategy for the Alpine Region, <http://alpine-region.eu/>

Programma di Sviluppo Locale (PSL) delle Valli di Lanzo, Ceronda e Casternone, www.regione.piemonte.it/montagna/montagna/rurale/dwd/2016/GAL/10_PSL_Valli_lanzo.pdf

SNAI Strategia Nazionale per le Aree Interne, www.agenziacoesione.gov.it/it/arint/

Source: Personal elaboration

Appendix B. List of Interviewed

ID	Interviewed	Date of the interview	M/F	Age	Municipality	Role
1	Battaglino John John	22/9/2017	M	33	Cantoira	Valleys of Lanzo Mountain Community, Technician
2	Benedetto Mara	10/09/2017	F	48	Viù	Farmer #1
3	Chianale Laura	19/07/2017 26/09/2017	F	56	Pessinetto	Toma di Lanzo Producers Association, President
4	De Agostini Marco	11/09/2017	M	n.d.	n.d.	Turin Provincial Farmers Association, Technician
5	Perino Ceresole Debora	30/08/2017	F	28	Viù	Farmer #2
6	Tomasino Giuseppe	22/09/2017	M	57	Monastero di Lanzo	Farmer and Restaurateur #3
7	Tomassone Michelino	25/08/2017	M	49	Groscavallo	Farmer #4
8	Troglià Gamba Bernardino	28/08/2017	M	62	Chialamberto	Farmer #5

Figure A1. Source: personal elaboration.

Appendix C. Interview Outline

I. General farm features

- (1) Farm history
- (2) Family or not family farm
- (3) If family business, generation involved at present
- (4) If not family business relationships and tasks among family members
- (5) If not family business, type of governance and duration of involvement in the farm
- (6) Number of workers: family and not family members
- (7) Number and type of livestock: cow, sheep, goats, and relevant breeds, for milk, meat, mixed production, longevity, and other livestock parameters
- (8) Farming surface (owned and rented)
- (9) Average annual turnover
- (10) Geographic location and presence of natural resources

II. Farmer characteristics

- (1) Sex
- (2) Age
- (3) Education level
- (4) Length of involvement in the farm
- (5) Managerial skills acquired in the management of human and material resources

III. Farms' sustainable business model (Bocken et al., 2014)

- (1) Value proposition
 - Priority values
 - Vision and Mission
 - Farm specialization (products and services offered, even tourism related ones)
 - Market segments and customer typology
- (2) Value creation and delivery
 - Key processes and activities
 - Characteristics of the workers (human capital)
 - Implementation of marketing strategies and business (organizational capital)
 - Financial resources: sources of funding (monetary capital)
 - Distribution channels and customer relation
 - Networking among producers
 - Type of relationship with the institutions/communities in tourism management and valley development
 - Technology (instrumental capital)
- (3) Value capture
 - Cost structure
 - Revenue structure

IV. Perception of effects (public goals) on valleys development

- (1) Effects on environment and land
- (2) Effects on society (e.g., reduction of depopulation)
- (3) Effects on culture (e.g., food and wine traditions)
- (4) Effects on tourism

V. Perception of inputs from external context

- The incidence of legislation, bureaucracy and constraints on the production process
- Main obstacles, difficulties, challenges to face
- Conservative/innovative reaction to external influence
- The degree of farmer's aptitude to innovation (new products—new production processes)

Source: Personal elaboration.

References

1. Bernués, A.; Ruiz, R.; Olaizola, A.; Villalba, D.; Casasús, I. Sustainability of pasture-based livestock farming systems in the European Mediterranean context: Synergies and trade-offs. *Livest. Sci.* **2011**, *139*, 44–57. [[CrossRef](#)]
2. Marin-Yaseli, M.L.; Lasata Martinez, T. Competing for Meadows. A case Study on Tourism and Livestock Farming in the Spanish Pyrenees. *Mount. Res. Dev.* **2003**, *23*, 169–176. [[CrossRef](#)]
3. Gellrich, M.; Baura, P.; Koch, B.; Zimmermann, N.E. Agricultural land abandonment and natural forest re-growth in the Swiss mountains: A spatially explicit economic analysis. *Agric. Ecosyst. Environ.* **2007**, *118*, 93–108. [[CrossRef](#)]
4. Bernués, A.; Olaizola, A.; Corcoran, K. Extrinsic attributes of red meat as indicators of quality in Europe: An application for market segmentation. *Food Qual. Prefer.* **2003**, *14*, 265–276. [[CrossRef](#)]
5. Bocken, N.M.P.; Short, S.W.; Rana, P.; Evans, S. A literature and practice review to develop sustainable business model archetypes. *J. Clean. Product.* **2014**, *65*, 42–56. [[CrossRef](#)]
6. Cooper, T.; Hart, K.; Baldock, D. Provision of Public Goods through Agriculture in the European Union. In *Report Prepared for DG Agriculture and Rural Development*; Contract No 30-CE-0233091/00-28; Institute for European Environmental Policy: London, UK, 2009.
7. Gibon, A. Managing grassland for production, the environment and the landscape. Challenges at the farm and the landscape level. *Livest. Product. Sci.* **2005**, *96*, 11–31. [[CrossRef](#)]
8. Aubert, M.; Perrier-Cornet, P. Is there a future for small farms in developed countries? Evidence from the French case. Small Farms: Decline or persistence. *Agric. Econ.* **2009**, *40*, 797–806. [[CrossRef](#)]
9. Bernués, A. Animals on the land. Ecosystem services and disservices grazing livestock systems. In *The Meat Crisis Developing more Sustainable and Ethical Production and Consumption*, 2nd ed.; D’Silva, J., Webster, J., Eds.; Routledge: Oxford, UK, 2017.
10. Renting, H.; Rossing, W.A.H.; Groot, J.C.J.; Van der Ploeg, J.D.; Laurent, C.; Perraud, D.; Stobbelaar, D.J.; Van Ittersum, M.K. Exploring multifunctional agriculture. A review of conceptual approaches and prospects for an integrative transitional framework. *J. Environ. Manag.* **2009**, *90*, 112–123. [[CrossRef](#)] [[PubMed](#)]
11. Broccardo, L.; Culasso, F.; Truant, E. Unlocking Value Creation Using an Agritourism Business Model. *Sustainability* **2017**, *9*, 1618. [[CrossRef](#)]
12. Tew, C.; Barbieri, C. The perceived benefits of agritourism: The provider’s perspective. *Tour. Manag.* **2012**, *33*, 215–224. [[CrossRef](#)]
13. Sonnino, R. For a ‘piece of bread’? Interpreting sustainable development through agritourism in Southern Tuscany. *Soc. Rural.* **2004**, *44*, 285–300. [[CrossRef](#)]
14. Lupi, C.; Giaccio, V.; Mastronardi, L.; Giannelli, A.; Scardera, A. Exploring the features of agritourism and its contribution to rural development in Italy. *Land Use Policy* **2017**, *64*, 383–390. [[CrossRef](#)]
15. Zott, C.; Amit, R.; Massa, L. The business model: Recent developments and future research. *J. Manag.* **2011**, *37*, 1019–1042.
16. Osterwalder, A.; Pigneur, Y.; Tucci, C.L. Clarifying business models: Origins, present, and future of the concept. *Commun. Assoc. Inf. Syst.* **2005**, *16*, 2–25.
17. Osterwalder, A.; Pigneur, Y. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*; John Wiley & Sons: Hoboken, NJ, USA, 2010.
18. Milne, M.J. Downsizing Reg, Addressing the ‘real’ sustainability agenda at work and home. In *Social Accounting, Mega Accounting and Beyond: A Festschrift in Honour of MR Mathews*; CSEAR: Scotland, UK, 2007.
19. Lüdeke-Freund, F. *Business Model Concepts in Corporate Sustainability Contexts: From Rhetoric to a Generic Template for ‘Business Models for Sustainability’*; Centre for Sustainability Management: Lueneburg, NS, Canada, 2009.
20. Stubbs, W.; Cocklin, C. Conceptualizing a “sustainability business model”. *Organ. Environ.* **2008**, *21*, 103–127. [[CrossRef](#)]
21. Nidumolu, R.; Prahalad, C.K.; Rangaswami, M.R. Why sustainability is now the key driver of innovation. *Harvard Bus. Rev.* **2009**, *87*, 56–64.
22. Lee, K.J.; Casalegno, F. An Explorative Study for Business Models for Sustainability. In *Proceedings of the PACIS, Taipei, Taiwan, 9–12 July 2010*.

23. Birkin, F.; Polesie, T.; Lewis, L. A new business model for sustainable development: An exploratory study using the theory of constraints in Nordic organizations. *Bus. Strategy Environ.* **2009**, *18*, 277–290. [[CrossRef](#)]
24. Boons, F.; Lüdeke-Freund, F. Business models for sustainable innovation: State-of-the-art and steps towards a research agenda. *J. Clean. Product.* **2013**, *45*, 9–19. [[CrossRef](#)]
25. Schaltegger, S.; Lüdeke-Freund, F.; Hansen, E.G. Business cases for sustainability: The role of business model innovation for corporate sustainability. *Int. J. Innov. Sustain. Dev.* **2012**, *6*, 95–119. [[CrossRef](#)]
26. Amit, R.; Zott, C. Value creation in e-business. *Strateg. Manag. J.* **2001**, *22*, 493–520. [[CrossRef](#)]
27. Lambert, S.C.; Davidson, R.A. Applications of the business model in studies of enterprise success, innovation and classification: An analysis of empirical research from 1996 to 2010. *Eur. Manag. J.* **2013**, *31*, 668–681. [[CrossRef](#)]
28. Battaglini, L.; Bovolenta, S.; Gusmeroli, F.; Salvador, S.; Sturaro, E. Environmental Sustainability of Alpine Livestock Farms. *Ital. J. Anim. Sci.* **2014**, *13*, 431–444. [[CrossRef](#)]
29. Richardson, J. The business model: An integrative framework for strategy execution. *Strateg. Chang.* **2008**, *17*, 133–144. [[CrossRef](#)]
30. Revelli, N. *Il Mondo dei Vinti*; Einaudi: Torino, Italy, 1977.
31. Pastorelli, F.; Bonardi, L. *Quale Futuro Per il Paesaggio Culturale Delle Alpi*; Cipra Italia, La Grafica Nuova: Torino, Italy, 2006.
32. Devoti, C. Bosco, campo, strada, insediamento: Lo spazio alpino occidentale tra artificio e realtà. In *Studi e Ricerche Per il Sistema Territoriale Alpino Occidentale*; Devoti, C., Naretto, M., Volpiano, M., Eds.; Associazione Nazionale Centri Storico-Artistici (ANCSA): Gubbio, Italy, 2015.
33. Salsa, A. *Il Tramonto delle Identità Tradizionali. Spaesamento e Disagio Esistenziale Nelle Alp*; Priuli & Verlucca: Scarmagno, Italy, 2007.
34. Bätzing, W. *Le Alpi—Una Regione Unica al Centro dell'Europa*; Boringhieri: Torino, Italy, 2005.
35. Dematteis, G. *Montanari Per Scelta*; Franco Angeli: Milano, Italy, 2011.
36. Battaglini, L.; Corrado, F. The return to the rural mountain lands: Different aspects of an on going phenomenon. *Sci. Territ.* **2014**, *2*, 79–86.
37. Corrado, F.; Dematteis, G. I nuovi montanari nelle Alpi Occidentali italiane. In *La Montagna Che Torna a Vivere*; Varotto, M., Ed.; Nuova Dimensione: Portogruaro, Italy, 2013.
38. Di Bella, E. La visione sovra-locale. In *Popolazione e Cultura: Le Alpi di Oggi*; Corrado, F., Ed.; Franco Angeli: Milano, Italy, 2015.
39. Formiconi, D. *Il Manuale Delle Gestioni Associate Comunali*; ANCI Piemonte: Torino, Italy, 2014.
40. Bussone, M. Borghi Alpini: Torneremo a Vivere. In *Uncem, Borghi Alpini. Perché il Ritorno alla Montagna è Possibile*; L'artistica Editrice: Savigliano, Italy, 2015.
41. Bussone, M. Borghi alpini, dalla rivitalizzazione alle green communités. Montagna 2.0, tra innovazione e reinsediamenti. In *Alpi e Architettura: Patrimonio, Progetto, Sviluppo Locale*; Del Curto, D., Dini, R., Menini, G., Eds.; Mimesis: Milano, Italy, 2016.
42. Fassio, G.; Battaglini, L.; Porcellana, V.; Viazzo, P.P. The Role of the Family in Mountain Pastoralism—Change and Continuity. *Mount. Res. Dev.* **2014**, *34*, 336–343. [[CrossRef](#)]
43. Yin, R.K. The Case Study as a serious research strategy. *Sci. Commun.* **1981**, *3*, 97–114. [[CrossRef](#)]
44. Eisenhardt, K.M.; Graebner, M.E. Theory building from cases: Opportunities and challenges. *Acad. Manag. J.* **2007**, *50*, 25–32. [[CrossRef](#)]
45. Yin, R.K. *Case Study Research: Design and Methods*, 2nd ed.; Sage: London, UK, 1994.
46. Bassignana, M. Sostenibilità dell'agricoltura di montagna. *Archalp* **2016**, *11*, 21–23.
47. Ryan, B.; Scapens, R.W.; Theobald, M. *Research Method and Methodology in Finance and Accounting*; Thompson Learning: London, UK, 2002.
48. Strauss, A.; Corbin, J.M. *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*; Sage: Thousand Oaks, CA, USA, 1998.
49. Charmaz, K. *Constructing Grounded Theory: A practical Guide through Qualitative Analysis*; Sage: London, UK, 2006.
50. Dematteis, G.; Corrado, F.; Di Gioia, A.; Durbiano, E. INTERMONT. *La Montagna Nella Città Metropolitana di Torino. Indagine Sugli Scambi e la Regolazione Solidale Delle Interdipendenze*; Dislivelli: Torino, Italy, 2017.
51. Guglielmotto Ravet, B. *Villeggiatura Ambita e Ambizione Turistica*; Dislivelli: Torino, Italy, 2015.

52. Bätzing, W. Uno sguardo da lontano. In *Libellule in Volo. Trentenni All'opera Oggi Nelle Valli di Lanzo*; Coletti, M., Guglielmotto-Ravet, B., Eds.; Società storica delle Valli di Lanzo: Lanzo Torinese, Italy, 2015.
53. Comitato Nazionale Aree Interne. In *Rapporto di Istruttoria per la Selezione delle Aree Interne*. Rome, Italy, 2015. Available online: www.regione.piemonte.it/governo/bollettino/abbonati/2015/16/attach/dgr_01251_085_30032015.pdf (accessed on 10 September 2017).
54. Torrente, P. Développement durable, tourisme et territoire. Quelques éléments préalables pour une approche systémique. *J. Commun. Stud.* **2009**, *2*, 131–148.
55. Tigu, G.; Calaretu, B. Trends in mountain resorts development. In *Forum Ware International. Special Issue 1. Buchar. Acad. Econ. Stud.* **2011**, *1*, 240–243.
56. Bistagnino, L.; Campagnaro, C. Systemic Design. In *Encyclopedia of Quality of Life and Well-being Research/Michalos A.C. (a cura di)*; Springer: Dordrecht, The Netherlands, 2014; pp. 6563–6569.
57. Ellen Macarthur Foundation. The Circular Model e Brief History and School of Thought. 2013. Available online: <https://www.ellenmacarthurfoundation.org/circulareconomy> (accessed on 10 September 2017).
58. Duglio, S.; Beltramo, R. Quality assessment in the Italian mountain huts. *Eur. J. Tour. Res.* **2014**, *8*, 115–142.
59. Duglio, S.; Beltramo, R. Estimating the Economic Impacts of a Small-Scale Sport Tourism Event: The Case of the Italo-Swiss Mountain Trail CollonTrek. *Sustainability* **2017**, *9*, 343. [[CrossRef](#)]
60. Beltramo, R. Un turismo sostenibile in quota. *Environment* **2000**, *13*, 12–16.
61. Beltramo, R.; Callegari, G. I rifugi alpini: Esperienze di progettazione e gestione ambientale in alta quota. *Archalp* **2011**, *2*, 17–18.
62. Beltramo, R.; Pandolfi, E.; Duglio, S. La creazione di un Sistema di Gestione Ambientale Multisito come valorizzazione e promozione del turismo montano. *Ambiente* **2005**, *6*, 591–596.
63. Bresciani, S.; Giacosa, E.; Broccardo, L.; Culasso, F. The family variable in the French and Italian wine sector. *EuroMed J. Bus.* **2016**, *11*, 101–118. [[CrossRef](#)]
64. Vrontis, D.; Bresciani, S.; Giacosa, E. Tradition and Innovation in Italian Wine Family Businesses. *Br. Food J.* **2016**, *18*, 1883–1897. [[CrossRef](#)]
65. Tigu, G.; Ditu Furtuna, C. Heritage tourism between material and immaterial. In *Forum Ware International. Buchar. Acad. Econ. Stud.* **2011**, *1*, 244–249.
66. Pearce, D.W.; Turner, R.K. *Economics of Natural Resources and the Environment*; Hemel Hempstead, Harvester Wheatsheaf: London, UK, 1989.



© 2017 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).