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Can Geographical Indications foster local development? Evidence from Montefalco Sagrantino DOCG

DIEGO GRAZIA*, STEFANO CORSI, CHIARA MAZZOCCHI

Department of Agricultural and Environmental Sciences, University of Milan, Via Celoria 2, 20133 Milan, Italy

*Corresponding author. E-mail: diego.grazia@unimi.it

Abstract. One of the main goals in the establishment of Geographical Indications (GIs) for European agri-food products was to help foster development in rural communities. Given the cultural and economic importance of wine production in Italy, this paper aims to understand how a wine GI in the Umbria region may have influenced local socio-economic development and, if so, its perceived magnitude among local stakeholders. By conducting semi-structured interviews and carrying out a qualitative analysis through the grounded theory model, results indicate a mirroring ascent, during the last three decades, in the pursuit of a unique identity, for both the territory and the wine product.

Keywords: Geographical Indications, local development, qualitative analysis, stakeholders, wine, Umbria.

1. INTRODUCTION

In times of swift and significant change, rural areas on the fringes face urgent questions regarding their future sustainability. Many of these regions find themselves in precarious situations within the global dynamics of primary production. One of the goals of the European Union (EU) regulation governing Geographical Indications (GIs) is to foster the economic development of rural regions. As clearly stated in the Regulation (EEC) 2081/92, the protection and promotion of products with these specific characteristics was expected to improve farmers' income and retain the population in rural areas [1].

Many researchers have investigated the existence and magnitude of the development of EU rural communities thanks to GIs, trying to assess how much of this impact can actually be attributed to the GI's presence [2, 3, 4, 5]. For instance, Vaquero-Piñeiro [5] has considered the municipalities where some of the best performing Italian food and wine Protected Designation of Origins (PDOs) are produced, to define the contextual conditions that have mostly contributed to the success of the local economy. The author affirmed that for food PDOs a successful GI product may emerge from thriving socio-

economic preconditions. Instead, concerning wine PDOs, a high production value may derive from other contextual socio-cultural factors, such as cultural traditions, community-based expertise, and local identity.

Moreover, wine GIs can become a symbol of their own territory, pushing the local economy also through wine tourism development [6]. Indeed, landscape and wineries foster the establishment of wine routes, wine tastings, and other correlated events and cultural activities that can result in the creation of new hospitality services, such as hotels and restaurants [6]. Nunes and Loreiro [7] have assessed the impact of winery landscape and high-quality wine productions in Tuscany, and found that tourism arrivals are positively influenced by the typical countryside patchwork image created by the presence of different crops and vineyards. Moreover, their results also show that the production of DOC and DOCG wines also has a positive influence on international tourist arrivals in a territory [7].

Among EU member states, Italy has the highest number of GI certifications for both food and wine products¹. As of January 2024, there are 528 GI wines in the country, including both DOC (*Denominazione di Origine Controllata*) and DOCG (*Denominazione di Origine Controllata e Garantita*) labels, revealing how much this product is part of Italian culture and is embedded in its different territorial contexts. Moreover, Italy is also the world's largest wine producer [8]; in 2021, the national wine production was estimated to have generated a revenue of around 13 billion euros [9]. It is then easy to imagine that wine production must have had, to some extent, a socio-economic impact on the different wine-producing areas.

This study aims to address the research question “What is the influence of a wine GI on local development?”, focusing on the Sagrantino di Montefalco DOCG area in the Umbria region, Central Italy. We have chosen a qualitative approach to gain a deeper insight from the direct experiences of local stakeholders. This is to determine whether there has been a noticeable socio-economic development in the area following the establishment of the GI and, if so, to assess its perceived scale. The Sagrantino di Montefalco DOCG was established in 1992, the same year that the EU labelling system based on GIs was introduced. Considering that Sagrantino had already been recognised as a DOC in 1979, this case study allows us to examine a product with a rooted tradition and history, but that is still not as known or recognisable as other Italian wines from Central Italy, such as Chianti or Brunello di Montalcino. Also, in the

Umbria region, agriculture has a higher impact on the local economy than the national average [10]. In addition, most of the stakeholders interviewed were able to give us a first-hand report of the main socio-economic developments that took place in the area since the recognition of the DOCG in 1992.

The next section illustrates some previous studies that have been conducted regarding the link between GIs and the development of rural areas. The following section describes the methodology used to collect and analyse the data, accompanied by a brief description of the case study of the Montefalco area. Subsequently, the main findings of this work are shown, thus presenting the first and second-order concepts and the aggregate dimensions that emerged from our analysis. Next, the main results are discussed. Finally, the article ends with the conclusions and limitations of this work.

2. LITERATURE REVIEW OF GIS IMPACT ON RURAL DEVELOPMENT

In the last years, the study of GIs has attracted the attention of an increasing number of scholars and policy-makers, even from non-EU countries, in particular with respect to their impact on social and economic development [11]. Indeed, more and more countries, in all continents, are now considering the establishment of GIs, supporting these policies with arguments such as the positive impact of GIs on local development processes and the protection of natural and cultural resources [12]. Cei et al. [2] have tried to assess the impact of the GI policy on a single indicator of rural development, the agricultural value added. The authors investigated GI schemes implemented at the NUTS3 level in the Italian region. Through the implementation of a fixed effect estimator, findings indicate that the implementation of GI protection in Italy has a positive effect on the agricultural value added, suggesting a positive contribution of this policy on rural development [2].

Through two specific case studies, Williams and Penker [13] have considered, instead, the Jersey Royal and Welsh Lamb, to assess the benefits that these two GIs have brought to rural areas. The authors conducted 25 in-depth interviews with both stakeholders and large retailers. They identified mostly indirect links between the GIs investigated and sustainable territorial development, through economic and social benefits brought to rural areas. Moreover, no significant cost for GI protection was found [13].

Sgroi [14] has focused his research on the GI Pachino tomatoes' production in Sicily, to illustrate a compre-

¹ Updated list available at <https://ec.europa.eu/agriculture/eambrosia/geographical-indications-register/>.

hensive political approach regarding the contribution of GI productions to sustainable development. He emphasised the characteristics of GIs as public goods; with results showing how GIs can help to create a territorial public good that can lead to the agricultural landscape's resilience and the economic growth of the entire region of origin [14].

With respect to wine, a product for which origin is particularly important, the establishment of GIs may have different results, depending on, for example, production volumes or the age of the GI itself, as shown by Belletti et al. [12]. Many reputed successful GI wines, such as Champagne or Chianti, have a long history and high average prices, indicating the existence of a quality (quasi) rent, which enables to cover a multitude of individual and collective costs [12]. Specifically for Champagne, Charters and Spielmann [17] illustrate that, unlike traditional corporate brands, the development of a territorial brand (such as PDOs) is deeply intertwined with the characteristics of their region. Key elements such as effective brand management, cooperation among stakeholders, a commonly shared mythology, and local engagement are critical for the strength of a territorial brand. Moreover, co-competition is proposed as potentially enhancing the market competitiveness for all firms involved in the brand [17]. Differently, Crescenzi et al. [3] specifically considered Italian wines protected by GI rules, to evaluate if this certification promotes local development in rural areas. By comparing rural municipalities with GIs since 1951 with municipalities without GI status, main results indicate that the former areas experience population growth and economic development in non-farming sectors, including high value-added activities [3].

However, there are also examples of wine GIs that, on the other hand, can present some drawbacks. Firstly, considering the number of producers, if a GI becomes too large, or quality standards are not enforced properly enough, free-riders could damage the GI's quality to the point that consumers may end up relying more on private brands as signs for product's quality [15]. In this regard, López-Bayón et al. [15] have considered the Spanish wine industry, and found that, above a certain threshold of producers affiliated with a GI, there is a decrease in the average product's quality (thus, there is an inverted U-shaped relationship between number of producers and quality). The authors also find that very large GI areas are also less effective; indeed, a larger geographic area can lead to an increase in heterogeneity among producers, to a less effective control of the standards, and to an increase in internal conflicts. Still in regard to a GI area, Alston and Gaeta [16] consider

the case of the Prosecco GI, in Italy. When Prosecco became a DOC, the area included in the GI was greatly expanded with respect to the small original production area within the Veneto region. The original areas were then promoted to DOCG status, which should be considered an advantage. However, in reality, they face a strong competition from the Prosecco DOC area, which has considerably lower production costs and higher yields, due to being located in a plain area and the use of a more mechanized production. Alston and Gaeta [16] also reflect on the strictness of PDO disciplines, which can hinder innovation and adaptation to the market, as in the case of "varietal wines", that is, wines usually made from a single variety that is indicated on the wine label. This is especially common for premium wines from New World regions, but this trend is catching up also in Europe, where "varietal wines" are classified as non-GI. Many European producers are now switching from PDO to PGI (Protected Geographical Indication) wines, allowing them to use different varieties and innovations not allowed under PDO rules. This is the case of Super Tuscan wines, which, despite being PGI wines, are now sold at even higher prices than other PDO wines from Tuscany [16].

3. THE SAGRANTINO DI MONTEFALCO DOCG AREA

The Sagrantino di Montefalco DOCG appellation encompasses five adjacent municipalities located in the Province of Perugia, in Central Italy. The municipalities are: Montefalco (its entire area), Bevagna, Castel Ritaldi, Giano dell'Umbria and Gualdo Cattaneo (Figure 1). This area in the Umbria region has been involved in viticulture for nearly a thousand years. Given the importance of Sagrantino wine for this territory, and thanks also to a shift in production from sweet to dry wines, Sagrantino obtained the DOC recognition in 1979. A few years later, in 1981, the local Consortium, "Consorzio Tutela Vini Montefalco", was established with the aim of guaranteeing high production standards and coordinating the local wineries in valuing and promoting Sagrantino wine around the world. In 1992, Sagrantino wine gained the DOCG appellation, which represents the highest level of recognition for Italian GI wines [18]. Currently, the vineyards area part of the Sagrantino di Montefalco DOCG appellation has expanded to 390 hectares, reaching more than 1 million bottles produced in 2021; moreover, the area is cultivated by 118 winegrowers and hosts 76 wineries, of which 61 are members of the Consortium [19].

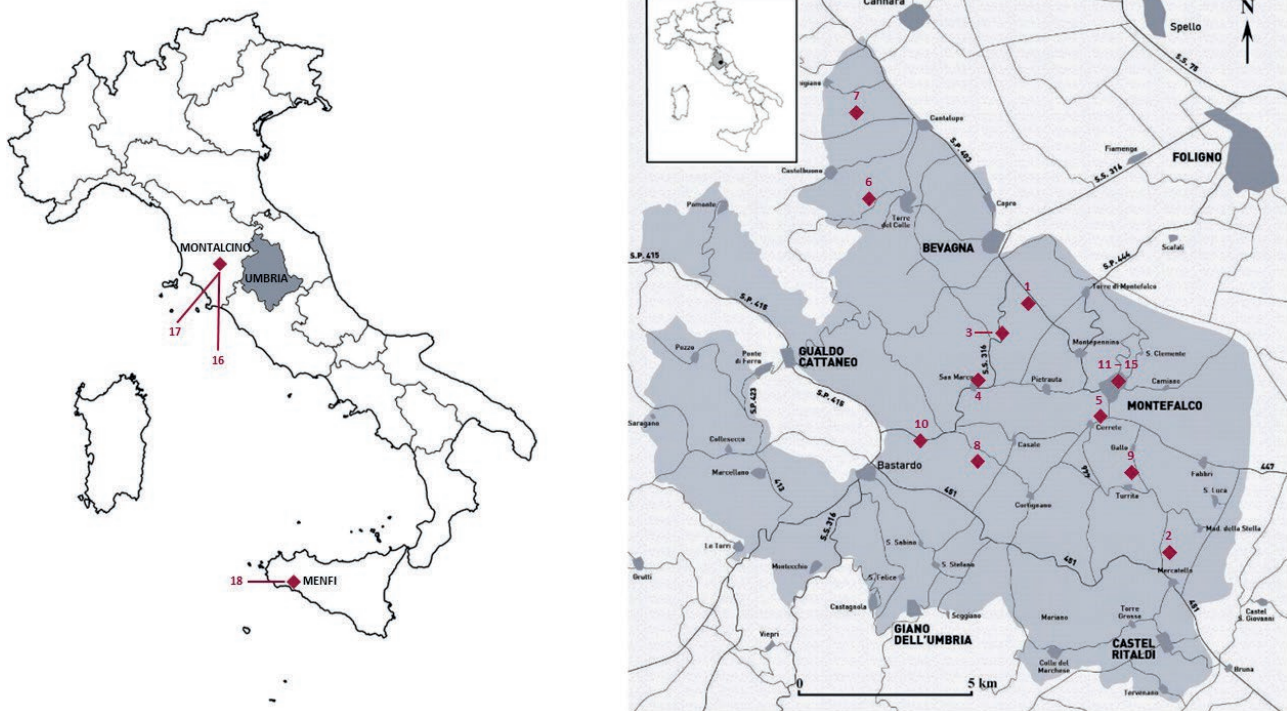


Figure 1. Italy and Montefalco DOCG area; interviewees are represented by the corresponding number (see Table 1). Source: authors' elaboration from Fatichenti [20]

4. METHODOLOGY AND DATA

We used a qualitative approach to answer the question: “What is the influence of a wine GI on local development?”. There are different reasons for this choice. Firstly, the main goal is understanding the potential impact of the GI by using the lived experiences of informants [21], without the constraints needed for a quantitative, regressive or statistical approach. Secondly, the inductive approach enables research discoveries to arise from the prevalent, dominant, or meaningful patterns present in unprocessed data, without the restrictions of structured methodologies. Thus, data analysis was based on the so-called grounded theory [22], particularly using the approach of Gioia et al. [23]. This inductive model captures the informants' experience in theoretical terms, allowing to illustrate the dynamic relationships among the emergent concepts that represent the phenomenon of interest [23]. Through this method, the risk of key themes being obscured, reframed, or overlooked, due to preconceived notions in data collection and analysis procedures, is circumvented [24]. In addition, this technique places significant emphasis on how individuals engage with others, and utilise elements from their environment to shape their identity and address challenges [25].

At last, this approach allows to highlight relationships among data, by finding the link between the emerging core constructs.

4.1. Data collection

Data collection was based on primary data sources, through in-depth, semi-structured interviews, which took place between July and October 2022, either in-person or by phone (Table 1). Semi-structured interviews make it possible to trace a direction on the potential topics of interest for the research purposes, while still allowing flexibility and adaptation. The interviews were pre-arranged with the interviewees; thus, each participant was aware that data were being collected on wine and local development regarding the Sagrantino di Montefalco DOCG case study.

In total, 25 individuals were interviewed, and these stakeholders were selected after consulting some local wineries and the Consorzio Tutela Vini Montefalco. These profiles include: 12 winery owners/directors from the Montefalco area; 7 wine experts –journalists, commercial directors, wine consultants, and 5 representatives of local institutions. In particular, 2 of the winery owners/directors were also interviewed due to their role inside the

Table 1. Profile of interviewees.

Case	Corporate / Institutional role	Location	Affiliation	Role in the research
#01	Director	Bevagna (PG), Umbria	Winery	Producer
#02	Director	Montefalco (PG), Umbria	Winery	Producer
#03	Owner	Bevagna (PG), Umbria	Winery	Producer
#04	Owner	Montefalco (PG), Umbria	Winery	Producer
#05	Owner	Montefalco (PG), Umbria	Winery	Producer
#06	Owner	Bevagna (PG), Umbria	Winery	Producer
#07	Director	Bevagna (PG), Umbria	Winery	Producer
#08	Owner	Montefalco (PG), Umbria	Winery	Producer
#09	Owner	Montefalco (PG), Umbria	Winery	Producer
#10	Owner	Montefalco (PG), Umbria	Winery	Producer
#11	President / Owner	Montefalco (PG), Umbria	Wine Consortium / Winery	President / Producer
#12	Councilor / Director	Montefalco (PG), Umbria	Wine Consortium / Winery	Consortium member / Producer
#13	President	Perugia, Umbria	Umbria Region	Local politician
#14	Vice mayor	Montefalco (PG), Umbria	Montefalco municipality	Local politician
#15	Director	Montefalco (PG), Umbria	Montefalco museum	Cultural manager
#16	President	Montalcino (SI), Tuscany	Wine Consortium / Winery	President / Producer
#17	CEO	Montalcino (SI), Tuscany	Winery	Producer
#18	Owner	Menfi (AG), Sicily	Winery	Producer
#19	President	Milan, Italy	Sommelier association	Sommelier
#20	President	Rome, Italy	Sommelier association	Sommelier
#21	Wine consultant	Bordeaux, France	-	Oenologist
#22	Italian reviewer	California, USA / Italy	Wine publication	Journalist
#23	Wine expert	Rome, Italy	Wine publication	Journalist
#24	Wine expert	Rome, Italy	Wine guide	Journalist
#25	Portfolio director	New York, USA	Wines importer and marketer	Portfolio director

local Consortium, and thus considered among the 5 institutional representatives. In addition, our study includes also 2 respondents from Tuscany (Montalcino) and 1 from Sicily (Menfi), in order to understand how other areas in Italy have been able to develop thanks (mostly or in part) to the wines produced there, and eventually highlight differences or similarities between various territories. We consider that the amount of interviews in this study has allowed us to reach an appropriate level of saturation, which is considered the ideal guide for the number of interviews to be conducted, especially when using a grounded approach. This means that including new interviewees would have not provided us with new information on this topic [26]. According to Guest et al. [27], this can occur within the first twelve interviews. The semi-structured interviews lasted between 20 and 50 minutes each, and were all digitally recorded. The interviews were conducted in Italian by the authors, transcribed *verbatim*, and then translated in English.

Then, primary data sources were supplemented with secondary data sources about Sagrantino di Montefalco DOCG, with updated data on production, reputation,

and local tourism. Incorporating and validating this information in the analysis aided in piecing together the historical narrative.

4.2. Data analysis

Following the initial phase of data collection, our focus shifted towards systematically mapping the diverse ways in which informants highlighted the contributions of Sagrantino di Montefalco DOCG to local development. We then applied the open coding technique to evince the first-order concepts. The interviews' transcripts were independently coded by the authors, and once the initial round of coding was completed, we consolidated the coded data and engaged in thorough discussions to merge and refine our individual interpretations. By means of multiple iterations, the raw data was gradually aggregated, resulting in the identification of first-order concepts. Then, by summarising the concepts using theoretical lenses, we classified them into five second-order themes. Here, we entered into a more theoretical dimension, and literature is further explored to find

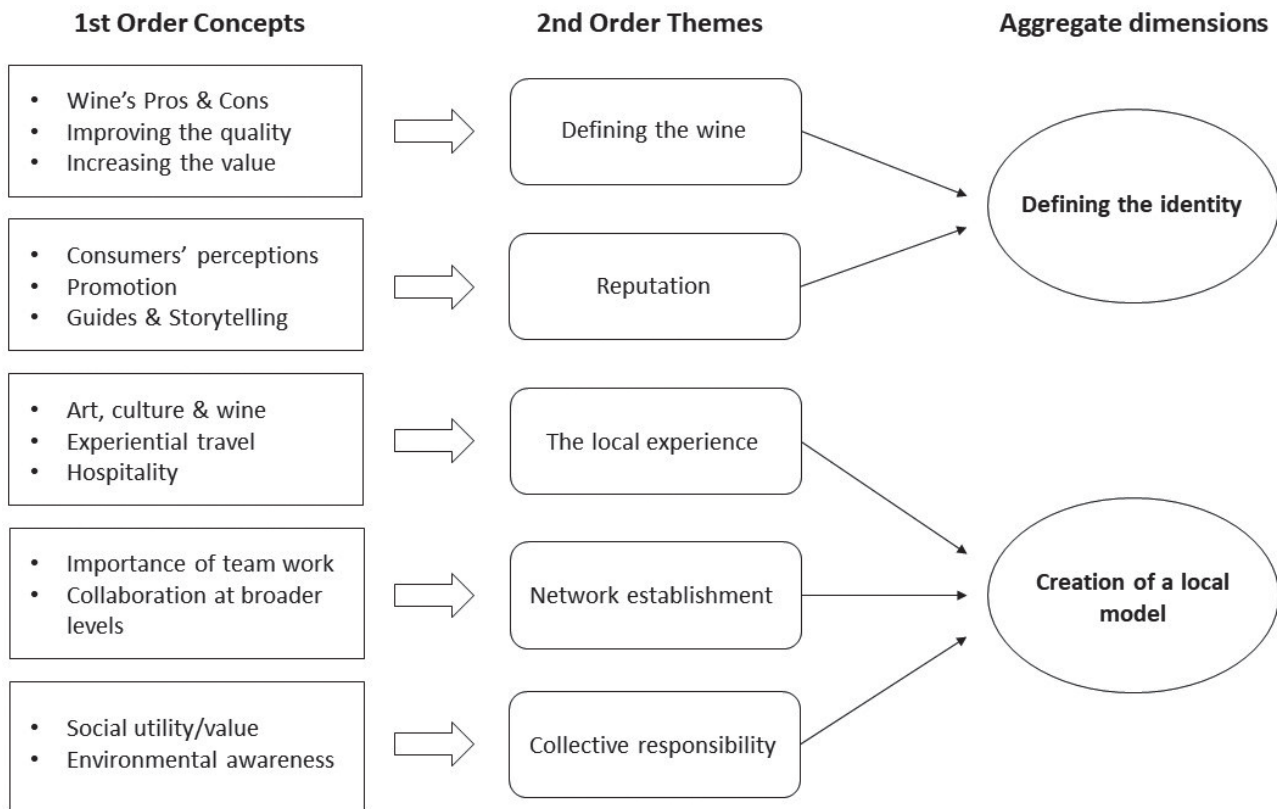


Figure 2. Data structure. Source: authors' elaboration.

emerging themes that could help us describe and explain the phenomenon that we are observing [23]. Finally, by analysing the connections among the second-order themes, two aggregate dimensions were then established.

5. FINDINGS

The analysis of the information obtained through the semi-structured interviews highlights different aspects and layers, that can be used to describe how a rural territory experiences an economic and social development also thanks to the establishment of a wine GI. Two main aggregate dimensions emerge from our analysis: *Defining the identity*, which shows how the wine's quality and reputation have developed during the years, and *Creation of a local model*, that highlights how the development of the wine industry, particularly the production of Montefalco Sagrantino wine, has contributed to the economic and social progress of the territory, showcasing the positive impact of wine-related activities on the local community and economy. Following, we describe these two aggregate dimensions and their underlying second-order themes, also with the support

of quotations from the interviews. Moreover, additional quotations from stakeholders to support our analysis and data structure can also be found in Table 2.

5.1. Defining the identity

5.1.1. Defining the wine

The Montefalco area in the Umbria region has a rich history in viticulture, dating back almost a thousand years, with evidence of vine cultivation dating back to as far as 1088. This long-standing tradition and historical presence of vines in the area further emphasise the importance of Sagrantino di Montefalco DOCG as a product of deep-rooted local heritage and expertise.

Local laws to protect vines and wines began to be established during the first half of the 14th century. By 1622, punishments and sanctions were imposed "for any person who cut the grape vine". Sagrantino wine presumably got its name from the Franciscan friars who grew the grapes and produced a sweet wine they would then use for "sacraments" [18]. The Museum of San Francesco in Montefalco bears witness to the ancient his-

Table 2. Data table.

2nd Order Themes	1st Order Concepts	Quote	Case
Defining the wine	Wine's Pros & Cons	"This grape allows us to produce very structured wines, thanks to its polyphenols, its tannins, its alcohol content. A great grape to make a great wine."	#05
		"Necessity to produce an updated version of this wine, the tannin needs to ripen longer while the grapes are still in the vineyard."	#07
	Improving the quality	"Since the 1990s, viticulture here has changed: it is now more specialised, higher planting density and, mostly, a reduction in yields."	#01
	Increasing the value	"Some producers are starting to indicate the specific vineyard on their labels. This is important, because we could start identifying Montefalco as an area suited to produce great cru wines."	#04
Reputation	Consumers' perception	"It still remains a divisive wine, you either love it or you don't. Due to its strong personality, it is difficult to be in the middle. However, continuing to work on its tannins and the vinification process will give him a chance to grow."	#25
	Promotion	"We have been trying to present ourselves to consumers not only as the land of Sagrantino, but also of other wines, such as Trebbiano. We must show our plurality of interpretations of this territory, through our native varieties."	#06
	Guides & Storytelling	"It is important that consumers understand the wine as an emotion, its ability to convey a feeling. While doing so, we also have to tell them about the uniqueness of Sagrantino."	#20
The local experience	Art, culture & wine	"We have made the choice to link the cultural sector with agriculture and the Enogastronomy, in order to boost the enhancement of our local excellences."	#14
	Experiential travel	"Tourists, especially foreign ones, want a connection with nature; many of them are interested to have experiences in farms and wineries, and cultural sites. They want to discover and have adventures in special settings."	#14
	Hospitality	"Not only from a quantitative perspective, but also when considering quality, restaurants and hospitality in the area have greatly raised the quality level of their offer."	#02
Network establishment	Importance of team work	"The Consorzio is fundamental to support the collective needs of producers. It deals with promotion, communication, audits, and safeguard. However, we should start working together also regarding more technical issues."	#10
	Collaboration at broader levels	"We need to increasingly team up with other stakeholders in the Umbrian supply chain, including restaurants and catering, hospitality, parks and cultural institutions, but also olive oil and other local foods productions."	#06
Collective responsibility	Social utility/value	"During the years there has been a common enrichment, but without losing our identity as an agricultural territory. For instance, when building wineries, all stakeholders involved have been careful to properly include them in the landscape."	#16
	Environmental sustainability	"There is a great awareness for wines that have sustainability at the core of their image, and this is a great opportunity for Umbria and its wines, since it is a region full of nature."	#18

tory of the territory, where art and products of the land, including wine, have been interwoven since antiquity.

The museum serves as a true representation of what one can discover in the territory. Just below the museum there are the Franciscan cellars, where Sagrantino wine was first produced. The museum narrates this ancient history with the intention of providing tourists with the tools to explore the current development of the wine denomination. The "Strada del Sagrantino", a dedicated route for wine tourism, offers experiential tourism opportunities, and works closely in collaboration with the Museum of San Francesco. [#15]

The indigenous Sagrantino grape variety is considered by many to be unique due to its high content of tannins and polyphenols, which allows to produce an

extremely recognisable wine, with respect to other red wines, especially from Italy (*Wine's pros & cons*).

Sagrantino wine is a prominent contemporary Italian red, which has been a part of the movement of renaissance in Italian winemaking that began in the 1980s and continues today. [...] It gained international recognition and success in the 1990s, becoming a standout wine with acclaimed labels. What sets Sagrantino apart is its uniqueness and irreplaceability outside the Montefalco territory. [#24]

The strength of Sagrantino lies in being an indigenous grape variety, characterized by its uniqueness, and a wine must distinguish and qualify itself for specific features. [...] I believe that due to the grape's characteristics, Montefalco Sagrantino is truly a one-of-a-kind wine. It is easily recognizable thanks to its distinctive sensory traits,

and of course, it has a rich narrative to share. [...] A wine must be unique, [...] and it is a great symbol for the promotion of a territory. [#19]

Indeed, the theme of quality has always been at the heart of Montefalco's wine production, and this is likely due to the unique characteristics of the Sagrantino grapes. As already mentioned, the nature of Sagrantino grapes has never allowed for a simplistic or naive approach to their production and management (*improving the quality*). The search for a wine that could be appreciated by consumers has indeed driven the pursuit of quality, with local producers now trying to position this product more firmly in a medium to high price range on both the national and international markets (*increasing the value*).

The exceptionally high polyphenol content of Sagrantino grapes has presented and, to some extent, continues to pose a challenge for local producers. While polyphenols are beneficial compounds that contribute to the wine's structure, colour, and aging potential, they can also result in intense tannins and astringency, which may make it difficult for non-expert consumers, to fully appreciate its qualities. In the past, this intensity might have limited the wine's appeal to a broader audience. However, local producers have been working to strike a balance in winemaking techniques, experimenting with different maceration times, fermentation methods, and aging approaches to soften the tannins.

For quite some time, our focus has been to produce wines that are not overly strong, aiming, instead, to create wines that are "drinkable" and enjoyable. While it is important for the wines to convey the distinctive characteristics of Sagrantino and exhibit its unique personality, we also strive to ensure that they are approachable and not challenging to be appreciated. [#02]

There has been a technical evolution after the pursuit of concentration, richness, extraction, and significant maturation typical of the 1990s. [...] The wines we taste today are more relaxed, more elegant, more balanced, and fresher, as much as a polyphenol-rich grape variety allows. This is an extremely positive fact because it shows the intelligence, attention, and sensitivity of a generation of producers who are facing international markets and are capable of [...] providing a more modern interpretation of the wine. [#24]

5.1.2. Reputation

The high level of quality perceived by consumers has played a crucial role in Sagrantino di Montefalco DOCG's success on the markets. Additionally, recognition from wine experts and guides has further solidified its reputation, particularly since the 1990s (*consumers' perception*).

Wine is commonly referred to as an "experience good", which means it can be evaluated by consumers only after consumption. Therefore, they frequently rely on signals such as price, firm reputation, and assessed product quality in order to make their choices [28]. In particular, consumers have started to turn more frequently to wine guides, helping them to mitigate the uncertainty associated with experience goods and enhances their confidence in their purchasing choices [29]. Oczkowski and Doucouliagos [30] even showed that there is a moderate and statistically significant partial correlation between quality ratings and wine prices, thus proving the importance for individual producers and regions alike to be positively featured in wine rankings.

A top wine is a wine that receives unanimous acclaim from critics and is capable of producing bottles and labels that are excellent at the time of release. However, these wines are also able to evolve and convey great emotions even in the following years, making them suitable for medium to long-term aging. In the case of Sagrantino, it benefits from extended aging, as we taste bottles that are 10-15-20 years old and still in excellent condition. [#24]

Even among producers there is an awareness that Sagrantino di Montefalco DOCG can give impetus to other local products as well (*promotion*), thanks to its reputation:

Today, in my opinion, having Sagrantino in a winery is essential; it is of utmost importance. Nowadays, people come to Umbria, or to this part of the region, to visit these wineries specifically for Sagrantino. Then they discover the other products and enjoy them as well. But currently, there is a great interest in Sagrantino. [#03]

This wine appropriately conveys the profound relationship between territory and wine, and the increasing recognition that Sagrantino di Montefalco DOCG has been experiencing during the last years on national and international wine guides strengthens this link (*Guides & storytelling*).

It is the wine's quality that determines its score, and this remains true. But in the context of wine storytelling, creating a narrative around that wine is, in my opinion, the modern key to good wine journalism. It involves telling the whole story that revolves around that glass - the culture, the art, the entire experience. Because consumers seek more than just the wine's quality; they also want to understand its symbolism and what it represents. [#22]

The efforts of producers and the Consorzio in redefining and improving Sagrantino di Montefalco DOCG seem to have borne fruit, particularly in terms of

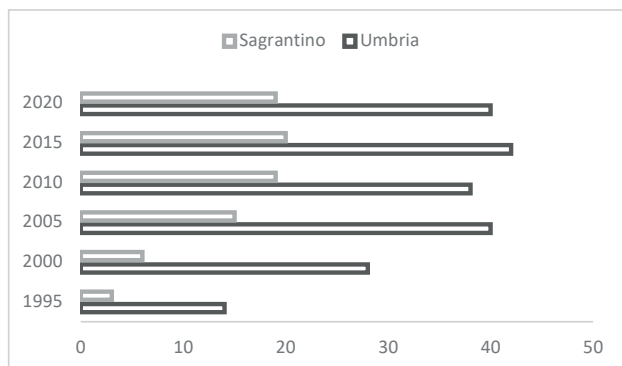


Figure 3. Wineries in Umbria and the Montefalco Sagrantino DOCG area ranked on Gambero Rosso Vini d'Italia (1995-2020). Source: authors' elaboration based on data from Gambero Rosso Vini d'Italia.

enhancing the wine's reputation. As a flagship wine of the Montefalco area, Sagrantino has also had a helpful impact on promoting other wine products in the region.

Although wine production in Umbria only accounts for around 1% of the national production [9], the region boasts an impressive diversity with about 13,000 hectares of vineyards and a remarkable presence of 21 different wine GIs, including 2 DOCGs, among which Sagrantino di Montefalco stands out. The wines of Montefalco region represent approximately 22.26% of the total production of GI wines in Umbria and, specifically, Sagrantino di Montefalco DOCG accounts for 7.6% [19]. Figure 3 illustrates the number of wineries from Umbria evaluated by Gambero Rosso, one of the leading wine guides in Italy.

Indeed, there has been a significant increase in the number of Umbrian wineries producing Sagrantino over the years. In 1995, the percentage of wineries included in the guide that produced Sagrantino di Montefalco DOCG was less than 20%. However, by 2020, this figure has nearly doubled, with almost half of the total regional wineries now producing Sagrantino di Montefalco DOCG.

Furthermore, Sagrantino di Montefalco DOCG has achieved remarkable success in the Gambero Rosso guide, as it now represents half of the Umbrian wines that has received the highest ranking, known as "Three Glasses".

5.2. Creation of a local model

5.2.1. The local experience

Even the producers have transformed into connoisseurs and promoters of this area. Not only they have knowledge of the landscape's beauty and the uniqueness of excep-

tional products like Sagrantino and other wines produced here, but they have also deepened their understanding of the cultural heritage associated with the area. Therefore, there is a close synergy between art, culture, territory, landscape, and the excellent products part of our Enogastronomy, which has allowed the local community and the territory to grow. [#13]

Local institutional stakeholders recognise the role that wine producers have played in creating a stronger link between the different factors that make this area so unique and special; that is, wine, food, and culture (*art, culture and wine*). Indeed, local foods are conceived as "authentic" products that symbolize the place and culture of the destination and can connect consumers to the region and its perceived culture and heritage [31]. Local stakeholders have expanded their services and enhanced visitor engagement in Montefalco. This has been applicable to both enotourism, and the local culture and nature, making the area appealing to a wide range of demographics.

Local politicians have demonstrated effectiveness in recognizing the growing demand for *experiential travel*, particularly after the impact of the Covid-19 pandemic.

Many younger tourists come to Montefalco to visit the Museum of San Francesco because they are interested in Sagrantino, in nature and sustainability, in the good local products; they want to have experiences. Wine producers have now a very high standard of hospitality: they offer guided tours, tastings, concerts, picnics, etc. [...] At the end of the day, the overlap between art and wine is very high; this combination represents the territorial experience, and it is successful. [#15]

Enotourism can sometimes become a driving force for the development of a certain territory, increasing its competitiveness and improving its wine production, thus leading to the economic regeneration of rural areas and to a higher quality of life for local inhabitants [32]. Different studies have illustrated that there is a positive correlation between GI wines and tourism activities [33, 34], with accommodation and food service being among the economic sectors in DOCG municipalities that grow the most with respect to the share of employment [3]. Confirming these findings, many respondents acknowledge that the increasing recognition of Sagrantino may have contributed to the overall growth and reputation of the entire Montefalco DOCG area, fostering the creation of more accommodations and dining establishments of higher quality, catering to the growing influx of visitors.

Previously, there were probably only one hotel and one restaurant in the area, but today there are approximately

20-25 restaurants. [...] This growth in the hospitality sector has started a virtuous circle: as more tourists began to visit, the demand for accommodations, wineries, and the excellent wines, increased as well. Consequently, this attracted more tourists to the area, further stimulating the expansion of the restaurant and hospitality industry. Notably, the qualitative aspect of the touristic offer has also seen a substantial improvement. [#02]

Figure 4 and 5 prove that both the number of tourists and the number of hospitality structures in the municipalities that constitute the DOCG area have indeed increased overall during, at least, the last 21 years (except for 2020, due to the Covid-19 pandemic), thus supporting the statements of the local stakeholders interviewed.

Notably, in the Sagrantino di Montefalco DOCG area, which includes part of the Folignate and Spolefino districts, there is a clear majority of non-hotel accommodations (which include camping and agritourism), proving the importance that landscape and nature have for visitors, especially foreign ones.

At the end of the 2000s, when agritourism was mentioned, people in this area were not well acquainted with the concept. They were uncertain if it was an experience they could try, questioning whether it involved spending a vacation on a farm. However, over the years, agritourism has flourished and grown significantly. [#07]

The local economy based, on one hand, on tourism and, on the other hand, on agriculture has developed especially during the last thirty years, with bottom-up collaborations between wineries and hospitality accommodations, started from the mutual necessity to drive the local economy and help each other. The respondents highlighted the role of regional institutions in recognizing

the opportunity to foster rural tourism linked to the experience provided by farms.

The Region of Umbria played a crucial role in this development by funding the renovation of old farmhouses and increasing the availability of accommodations. [...] In the last two decades, the entire Umbria region has witnessed a substantial increase in offerings, including accommodations and dining options. Consequently, there has been a shift in perception, and now the area is rich in hospitality and culinary options. [...] Significant emphasis has been placed on providing training courses in communication and foreign languages. [#07]

Overall, the theme revolving around the *local experience* in rural communities, and the transformation that occurred in Montefalco to become an increasingly popular tourism destination, can also be found in the community of Menfi, in Sicily. One producer from the area shared his perspective:

I have noticed a great change. While Menfi used to be a strictly agricultural area, nowadays tourism has become a fundamental aspect. This is a very beautiful but little-known area. [...] There has been a proper structural shift from an agricultural and viticultural area to an agri-touristic one. [#18]

5.2.2. Network establishment

If a DOC does not have the ability to become a territorial brand (a collective trademark), it may not be very effective. [...] A DOCG linked to a group of producers who collaborate in promotion, establish shared and certain rules, and self-regulate through Consortia can be a successful approach. [#23]

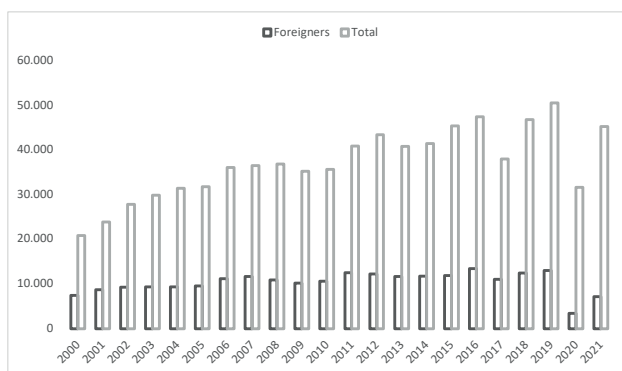


Figure 4. Tourist arrivals in the Montefalco Sagrantino DOCG municipalities. Source: authors' elaboration based on data from Regione Umbria.

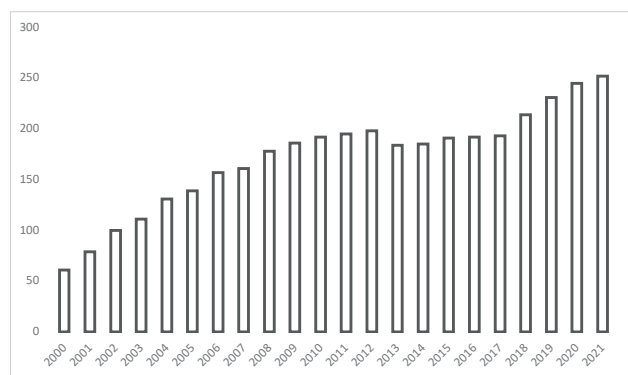


Figure 5. Number of hospitality structures in the Montefalco Sagrantino DOCG municipalities. Source: authors' elaboration based on data from Regione Umbria.

In the past, Sagrantino di Montefalco DOCG was promoted on the markets with a focus on its strength and tannic structure. However, in recent years, the Consortium has adopted a different strategy: instead of solely promoting Montefalco as the land of Sagrantino, they have chosen to present the area as a place where other outstanding wines from native grape varieties, such as Trebbiano Spoletino, are also produced. These wines are seen as an opportunity not only to showcase the great diversity of the region's wine production, but also to attract consumers who might be hesitant to try such a distinctive wine as Sagrantino. This approach opens new possibilities for consumers to discover and appreciate the diverse and exceptional wine offerings the region has to offer beyond the well-known Sagrantino.

There is an ongoing reflection about the potential of the wines produced here. Luckily, it is not an area defined by a single product, but is capable to offer to international consumers a variety of high-quality wines. [#24]

Wine, food, and tourism can provide a unique experience and lifestyle to visitors, thanks also to the synergy and cooperation of the different entrepreneurial activities [35]. This means that the local stakeholders must be able to work together in order to accomplish their common goals. In the Montefalco area there are different institutional actors that can influence the local economic development and the growth of the wine sector. These are the municipalities, the Consortium, and public associations such as Strada del Sagrantino (which aims to promote the territory and its products). However, it is important to acknowledge that their collaboration has also presented challenges and conflicts along the way. Nonetheless, the efforts put into working together have ultimately proven to be fundamental in attaining the positive outcomes associated with local development.

As administrators, we have listened and sought to understand the issues faced by the Municipality, the Consortium, and the Strada del Sagrantino. The first achievement of this administration was to facilitate communication among all the key stakeholders in the region. [...] By doing so, we began to realise that, if we all move in the same direction, we can accomplish significant and meaningful results together. [#14]

However, the collaboration, especially among individual producers within the Consortium, appears to not be fully developed yet to effectively address future challenges, particularly those related to climate change and more innovative and sustainable agriculture. The current focus seems to be mostly on promotion and quality con-

trol, and this approach may hinder the development of more substantial cooperation among member wineries.

The consortium plays a crucial role in supporting the collective needs of producers. It handles various aspects such as promotion, communication, audits, and safeguarding. However, it does not address technical issues due to their complexity and the substantial financial requirements involved. [...] Climate is a critical element in the production of wine; [...] however, addressing climate-related challenges can give Montefalco an advantage over other wine-producing regions. By effectively handling this issue, the region can position itself favourably and stand out in the global wine market. [#10]

The above statement by respondent #10 seems to confirm part of the findings of another research involving Montefalco DOCG wineries. Maghssudipour et al. [36] analysed the role played by different local knowledge ties to investigate the driving forces of the knowledge flows. It appears that local actors were more likely to provide knowledge to others in the case of economic ties based on material exchanges rather than on a friendship basis. In addition, local wine-related institutions did not provide a statistically significant result as drivers of exchanging knowledge; also, local actors were more likely to form knowledge ties if they were linked to other external institutions rather than to local ones [36]. These results illustrate the chance to implement different forms of interaction among firms and a more inclusive knowledge-sharing within networks. This is particularly important with respect to wine consortiums, which are fundamental to implement formal relationships and trust among competitors [36].

Some producers also recognise the absence of an agreed minimum threshold price for Sagrantino di Montefalco DOCG in the market. Setting a minimum price, below which the wine should not be sold, could significantly enhance the perceived economic value of the product, contributing to better position Sagrantino di Montefalco DOCG as a premium and high-value wine. This could benefit both producers and the overall market perception. Additionally, other interviewees expressed their concern about the lack of a proper zoning system for the Montefalco DOCG area. The implementation of such system could identify vineyards that are more suitable for producing higher quality wines, thus enabling the production of cru wines that could be sold at higher prices. In this way, the region can strengthen its identity and reputation as a premium wine-producing destination. Indeed, as wine consumers become increasingly knowledgeable about quality and reputation indicators, they will pay more attention to signals that highlight the

quality of the producer and the specific site where the wine is produced [37].

Perhaps, from the beginning, we didn't identify specific zoning areas. Initially, we had around 50 hectares, but today we have hundreds, if not thousands. Implementing zoning would have allowed us to produce Sagrantino, grand crus, and premier crus, which could have justified higher prices and helped us improve the overall quality of our wines. [#05]

Several local producers interviewed expressed their aspirations to forge stronger collaborations with other areas and GI districts at the Umbrian regional level. By fostering partnerships with neighbouring areas and districts, they envision enhancing the visibility and appeal of Montefalco's wines and products beyond its immediate boundaries. This strategic approach to regional cooperation can create synergies, increase market opportunities, and elevate the overall reputation of the region's offerings, benefiting both producers and the region's economic growth in the long run.

If we do not make the consumer understand what Umbria is, no matter how magnificent the Montefalco territory is and how excellent and unique the wine is, we will always face more challenges. It is crucial to continue growing as the Montefalco region, but at the same time, we must work as Umbria, creating awareness of the "Umbria" product in the world of wine. Then, Montefalco can grow, just as all the other DOCs and DOCGs in our region can grow. [#09]

Indeed, it is crucial to recognise the dedication of individual producers, the Consortium, and other local stakeholders in their efforts to promote Sagrantino di Montefalco DOCG and Montefalco territory. Other existing successful models in other regions could be taken as an example, such as the Montalcino area in Tuscany. By studying and adopting some of the strategies and best practices implemented in Montalcino, Montefalco can further enhance its marketing and branding efforts. Emulating successful models while retaining its unique identity will strengthen the overall promotion of Sagrantino and Montefalco wines, contributing to the growth and recognition of the region in the global wine market. The importance of collaborating among individual producers for the success of a GI is well explained in the words of respondent #16 from Montalcino:

In our opinion, what has made the difference for Montalcino, beyond the individual efforts of the wineries, is the teamwork of the Consortium. It has kept the producers together, pushing for a unified marketing strategy and

providing significant support to everyone. Of course, the quality of the wine plays a crucial role, but the Consortium has played, and continues to play, a key role in promoting and raising awareness of the denomination [#16]

5.2.3. Collective responsibility

Given the intrinsic relationship between a GI and its territory, the rural development triggered by the presence of a GI can have not only a strictly economic impact (as already mentioned, on different local economic sectors), but also a social impact. Indeed, by increasing the income of producers and fostering job generation, GIs contribute to the survival of rural communities [38]. The impact that a GI can have on its community also emerges from the interviews with producers from the Brunello di Montalcino DOCG area, an older wine GI with respect to Sagrantino di Montefalco DOCG (it was established in the 1960s). In Montalcino, the local consortium has decided to actively help its community through different actions:

Acting together as a consortium, we have created a territorial Foundation, subsidised by members, with the aim to help those in need, and to engage in public utility activities. After establishing the Foundation, we have also decided to broaden our horizons: besides wine, we have started promoting other local productions, such as olive oil, honey, pasta, etc. [...] In addition, given the increasing request by firms for specialised labour, we have also established an agricultural school in Montalcino. [#16]

The commitment of the successful Consortium of Brunello di Montalcino, towards pursuing and creating socio-economic benefits for their local community, seems to confirm the findings of the work of Rivera et al. [39], who indicate that a stronger sense of community enhances the potential and the development of rural communities. Similar types of social initiatives to the ones created in Montalcino are also emerging in the territory of Montefalco, where some wineries have been collaborating with the regional Higher Technical Institute (*Istituto Tecnico Superiore*), offering specific courses and internships to its young students in order to develop skills in viticulture. Furthermore, the decision by the Consortium in Montalcino to also start promoting other agricultural productions could similarly be applied in Montefalco, where several producers aspire to broaden their network of collaborations with other regional wine GIs and food products.

In addition to the social utility of GIs (*social value*), another important topic emerged from the interviews is related to the environment and sustainability. In par-

ticular, the evolution of the climate in the last years have caused concerns with respect to droughts, floods, climate extreme events and the sustainability of viticultural practices.

The main challenge is climate. If we are able to overcome this, then we will also be able to face all other future problems, but climate is the most difficult one. This year has been very tough, we have not had the opportunity to irrigate because there is no water available. [#03]

Especially for viticultural areas, which are extremely dependant on geographical and climatic conditions, it is fundamental to be able to cope with the future impact and effects that climate change will have on wine production. The identification of adaptation initiatives to future vulnerability will be fundamental for many winegrowers, especially in Europe [40]. This feeling is also shared by many local producers in Montefalco, with some of them seeing an urgent obligation to start adopting the most innovative technologies to reach a more sustainable production (*environmental awareness*).

The territory must become “green”, organic production is not the end point, but the starting point. We must not settle once all wineries will become organic, but we have to do more [...]. We should not just attempt to obtain a mark on a wine bottle, but we have a responsibility towards the environmental impact and the product. Technology is what will help us take the leap [...]. We must become aware that technology will be a way of doing agriculture. [#07]

6. DISCUSSION OF RESULTS

The results obtained from the study indicate that a wine GI can play a crucial role in promoting the development of a territory. However, these findings also suggest that this development process can be more effective when approached through a sequence of specific and interconnected steps. These steps encompass various aspects, requiring collaboration among different stakeholders involved in the wine industry and the local community. By taking a systematic and coordinated approach, involving all relevant actors, the wine GI can have a more significant impact in fostering the overall growth and prosperity of the area, benefiting both the wine producers and the territory.

Firstly, when speaking with producers, it becomes evident that they have invested significant effort, over the past decades, in understanding and meticulously working on the characteristics that distinguish Sagrantino di Montefalco DOCG as a wine that is extremely

unique when compared to other wines. This, in addition to other ways to add value for the product (e.g., quantity produced, sale prices, etc.), is helping local producers to *define the wine*. By diligently improving and promoting the unique characteristics of Sagrantino, the wineries, and potentially all the municipalities within the Sagrantino di Montefalco DOCG area, are shaping the image they project to both national and international consumers and visitors. This careful cultivation of the wine’s identity and reputation will play a pivotal role in attracting and captivating wine enthusiasts, tourists, and potential buyers, positioning Sagrantino di Montefalco DOCG as a distinctive and compelling player on international markets. Considering this responsibility, the producers, along with wine experts such as sommeliers and journalists, recognise their crucial role in effectively communicating the wine and its uniqueness to consumers. By collaborating with wine experts and staying attuned to consumer feedback, producers can refine their messaging, ensuring that the essence of Sagrantino and its distinctiveness are accurately conveyed to the target audience. All these elements concur in what has been described as *defining the identity* of Sagrantino di Montefalco DOCG.

Relatively to the geographical area in which the wine is produced, three main themes emerge through the interviews; these are: the *local experience*, *network establishment* and *collective responsibility*. Regarding the first issue, locals have become increasingly aware that now tourists not only want to visit a place, but they aim to understand what makes it unique, its traditions and culture: they are looking for the so-called *experiential travel*. Also, the awareness of environmental sustainability, biodiversity, and natural resources plays a significant role in shaping tourists’ perceptions and preferences. The tourism offerings in the Montefalco area have been adapting to meet these evolving needs, fostering a deeper connection between cultural events, art, wine, and the local natural surroundings. The transformation of Montefalco in a unique tourist destination, thanks also to the presence of its agricultural and viticultural productions, can be compared to what happened in the rural community of Menfi (Sicily) as well, illustrating a proper structural shift from agricultural to “agri-touristic” areas. Furthermore (concerning *network establishment*), it emerges how much important is the collaboration between producers and local institutions, also in the future. Most local stakeholders emphasised the significance of having a shared long-term vision for the territory, recognising its importance in guiding sustainable development and growth. However, some stakeholders acknowledged the need for more concerted efforts in

addressing specific challenges related to climate change and other technical issues. Additionally, many interviewees recognised that cooperation needs to extend to different and broader levels beyond the local context. For example, collaborating at a regional level to promote local wines, products, and touristic resources, to reach an effective communication strategy. Moreover, respondents highlighted the importance for wine industry to create social utility and benefits for the local community, by creating job opportunities, supporting local businesses, but also enhancing community engagement through cultural and social events related to wine tourism. In particular, the idea of the social utility of wine production in a rural area has also emerged from the interviews with the producers from Tuscany, although with their own differences. In Montalcino, the local wine Consortium has taken it upon itself to help those in need in the area and to engage in public utility activities. This initiative could also be developed in the Montefalco area, where it could increase the already strong connection between the community and wine production. However, something that is already being done in both these two GI areas, is to give educational and job opportunities to young students in the area, by providing them with useful skills and knowledge in viticulture. In addition, similarly to social utility, there is a growing awareness of the crucial relationship between wine production and environmental sustainability. Some producers recognised that adopting sustainable viticulture practices should be embraced collectively by as many producers as possible, in order to have lasting positive impacts on the environment. All these aspects contribute to the *creation of a local model* for territorial development.

7. CONCLUSIONS AND LIMITATIONS

What emerges from this analysis can serve as a foundation for reflecting on the future of the territory. What is the *vision* of the future territory? What are the *guidelines* for the development of DOCGs on one hand, and the local economic model on the other?

The dimension of “*Defining the identity*” suggests a conscious and shared vision about the wine product that one would like to obtain: a pleasant, important but fresher wine, which maintains its uniqueness by meeting the taste of consumers. According to several interviewees, Sagrantino di Montefalco DOCG has all the qualities to aspire to international success, with still high potential for improvements in the winemaking process. There is a certainty that, in terms of product quality, much has been achieved, much more can be done, but

given the uniqueness of the Sagrantino grape, the results achieved so far are remarkable.

Differently, the definition of which wine is intended to be presented to the markets remains unclear, risking the portrayal of an inconsistent image (and product). In fact, even though under a single denomination, there are quite different types of products present on the market, belonging to different price ranges, creating confusion among consumers and an unclear perception of quality. Price is indeed a fundamental element of communication to the consumer, significantly influencing their purchasing behaviour and perception of quality regarding a product like wine, which can be judged only after consumption. Strategically, there should be a shared reflection between producers and the Consortium regarding the benchmark reference of the product they aim to achieve. In addition, both in Italy and abroad, Sagrantino di Montefalco DOCG is still not widely represented on restaurants wine lists, as reported by the interviewees, and this is another aspect that should be strengthened through shared objectives and investments in quality and promotion.

The “*Creation of a local model*” is rooted in the idea of stakeholders’ collaboration and the development of territorial networks. Despite the relationships that emerge among institutions, companies, and the Consortium, a more defined and collaborative strategic direction given by local institutions could help in terms of the relationships between producers and hospitality and cultural structures. The analysis also highlights the issue of infrastructures in Montefalco and the surrounding areas, which are currently accessible mainly by roads, but less so by railways and other infrastructures. Sustainable tourism, based on cycling paths and walking trails, is considered as potentially important and worth developing.

Communication plays a crucial role in addressing both the aggregate dimensions. For Sagrantino di Montefalco DOCG, which is relatively unknown both domestically and internationally, there is a need for improved communication and marketing efforts to increase its recognition and sales.

Finally, the concerns surrounding climate change necessitate proactive measures to adapt viticulture practices and mitigate its impact on wine production. Embracing sustainable practices becomes imperative to secure the future viability of the wine industry and preserve the unique terroir of Montefalco. Moreover, the adoption of cutting-edge technologies presents an opportunity to improve efficiency, quality, and innovation throughout the entire winemaking process, giving the chance to position the Montefalco area as a leader in sustainable wine production and ensuring the continued

success and reputation of its wines on the global market.

The type of analysis employed for this work also presents some downsides. Firstly, the use of a qualitative method does not allow to properly quantify the socio-economic impact that the Montefalco area has experienced thanks to the establishment of a GI. It could be interesting to develop a more in-depth analysis of the repercussions on different industrial sectors in the area, the employment rate, land values, etc. Also, a comparison with other similar qualitative case studies regarding the development of further rural areas thanks to GI wines (in Italy but also abroad) could be helpful to find major similarities or differences and better assess the effects of GIs on local development. In our study we have illustrated, even if through a very small number of interviews from other wine GIs in Tuscany and Sicily, how different rural territories tend to have some common factors in their development. For example, an increase in a collective sense of social responsibility towards their communities, and, also, a strong correlation between the improvements in local viticulture and tourism-related developments, and the opportunities these bring for rural areas.

However, despite relying on qualitative data, the methodology chosen and the findings of this research have allowed us to confirm what has already been demonstrated in previous quantitative studies about the impact of GIs on rural development [3, 5]. This proves how valuable qualitative research can also be in order to assess socio-economic development in rural areas.

Finally, this paper aims to offer an overview of the territorial challenges, but also benefits, that a rural area can experience, during different decades, thanks to the presence of a wine GI, further expanding the scientific literature about this topic. As shown in this study, new opportunities and wealth can be created for those who operate in the area. However, for more precise analyses of this topic in the future, local consortia and institutions should collect data more accurately and more regularly. This would help not only local producers, but all local stakeholders, in better assessing the true impact from a socio-economic perspective, and to become more effective in the management of territorial brands. Indeed, quantitative data still remain limited and not easily accessible to researchers and scholars.

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