

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

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35 **Abstract**

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

43  
44 **Keywords:** Geographical Indications, Local development, Qualitative analysis, Stakeholders, Wine,  
45 Umbria

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48  
49 **1. Introduction**

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

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

64 from other contextual socio-cultural factors, such as cultural traditions, community-based expertise,  
65 and local identity.

66 Moreover, wine GIs can become a symbol of their own territory, pushing the local economy also  
67 through wine tourism development [6]. Indeed, landscape and wineries foster the establishment of  
68 wine routes, wine tastings, and other correlated events and cultural activities that can result in the  
69 creation of new hospitality services, such as hotels and restaurants [6]. Nunes and Loreiro [7] have  
70 assessed the impact of winery landscape and high-quality wine productions in Tuscany, and found  
71 that tourism arrivals are positively influenced by the typical countryside patchwork image created by  
72 the presence of different crops and vineyards. Moreover, their results also show that the production  
73 of DOC and DOCG wines also has a positive influence on international tourist arrivals in a territory  
74 [7].

75 Among EU member states, Italy has the highest number of GI certifications for both food and wine  
76 products<sup>1</sup>. As of January 2024, there are 528 GI wines in the country, including both DOC  
77 (*Denominazione di Origine Controllata*) and DOCG (*Denominazione di Origine Controllata e*  
78 *Garantita*) labels, revealing how much this product is part of Italian culture and is embedded in its  
79 different territorial contexts. Moreover, Italy is also the world's largest wine producer [8]; in 2021,  
80 the national wine production was estimated to have generated a revenue of around 13 billion euros  
81 [9]. It is then easy to imagine that wine production must have had, to some extent, a socio-economic  
82 impact on the different wine-producing areas.

83 This study aims to address the research question “What is the influence of a wine GI on local  
84 development?”, focusing on the Sagrantino di Montefalco DOCG area in the Umbria region, Central  
85 Italy. We have chosen a qualitative approach to gain a deeper insight from the direct experiences of  
86 local stakeholders. This is to determine whether there has been a noticeable socio-economic  
87 development in the area following the establishment of the GI and, if so, to assess its perceived scale.  
88 The Sagrantino di Montefalco DOCG was established in 1992, the same year that the EU labelling  
89 system based on GIs was introduced. Considering that Sagrantino had already been recognised as a  
90 DOC in 1979, this case study allows us to examine a product with a rooted tradition and history, but  
91 that is still not as known or recognisable as other Italian wines from Central Italy, such as Chianti or  
92 Brunello di Montalcino. Also, in the Umbria region, agriculture has a higher impact on the local  
93 economy than the national average [10]. In addition, most of the stakeholders interviewed were able  
94 to give us a first-hand report of the main socio-economic developments that took place in the area  
95 since the recognition of the DOCG in 1992.

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

96 The next section illustrates some previous studies that have been conducted regarding the link  
97 between GIs and the development of rural areas. The following section describes the methodology  
98 used to collect and analyse the data, accompanied by a brief description of the case study of the  
99 Montefalco area. Subsequently, the main findings of this work are shown, thus presenting the first  
100 and second-order concepts and the aggregate dimensions that emerged from our analysis. Next, the  
101 main results are discussed. Finally, the article ends with the conclusions and limitations of this work.  
102

## 103 **2. Literature review of GIs impact on rural development**

104 In the last years, the study of GIs has attracted the attention of an increasing number of scholars and  
105 policy-makers, even from non-EU countries, in particular with respect to their impact on social and  
106 economic development [11]. Indeed, more and more countries, in all continents, are now considering  
107 the establishment of GIs, supporting these policies with arguments such as the positive impact of GIs  
108 on local development processes and the protection of natural and cultural resources [12]. Cei et al.  
109 [2] have tried to assess the impact of the GI policy on a single indicator of rural development, the  
110 agricultural value added. The authors investigated GI schemes implemented at the NUTS3 level in  
111 the Italian region. Through the implementation of a fixed effect estimator, findings indicate that the  
112 implementation of GI protection in Italy has a positive effect on the agricultural value added,  
113 suggesting a positive contribution of this policy on rural development [2].

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

120 Sgroi [14] has focused his research on the GI Pachino tomatoes' production in Sicily, to illustrate a  
121 comprehensive political approach regarding the contribution of GI productions to sustainable  
122 development. He emphasised the characteristics of GIs as public goods; with results showing how  
123 GIs can help to create a territorial public good that can lead to the agricultural landscape's resilience  
124 and the economic growth of the entire region of origin [14].

125 With respect to wine, a product for which origin is particularly important, the establishment of GIs  
126 may have different results, depending on, for example, production volumes or the age of the GI itself,  
127 as shown by Belletti et al. [12]. Many reputed successful GI wines, such as Champagne or Chianti,  
128 have a long history and high average prices, indicating the existence of a quality (quasi) rent, which  
129 enables to cover a multitude of individual and collective costs [12]. Specifically for Champagne,

130 Charters and Spielmann [17] illustrate that, unlike traditional corporate brands, the development of a  
131 territorial brand (such as PDOs) is deeply intertwined with the characteristics of their region. Key  
132 elements such as effective brand management, cooperation among stakeholders, a commonly shared  
133 mythology, and local engagement are critical for the strength of a territorial brand. Moreover,  
134 cooptation is proposed as potentially enhancing the market competitiveness for all firms involved in  
135 the brand [17]. Differently, Crescenzi et al. [3] specifically considered Italian wines protected by GI  
136 rules, to evaluate if this certification promotes local development in rural areas. By comparing rural  
137 municipalities with GIs since 1951 with municipalities without GI status, main results indicate that  
138 the former areas experience population growth and economic development in non-farming sectors,  
139 including high value-added activities [3].

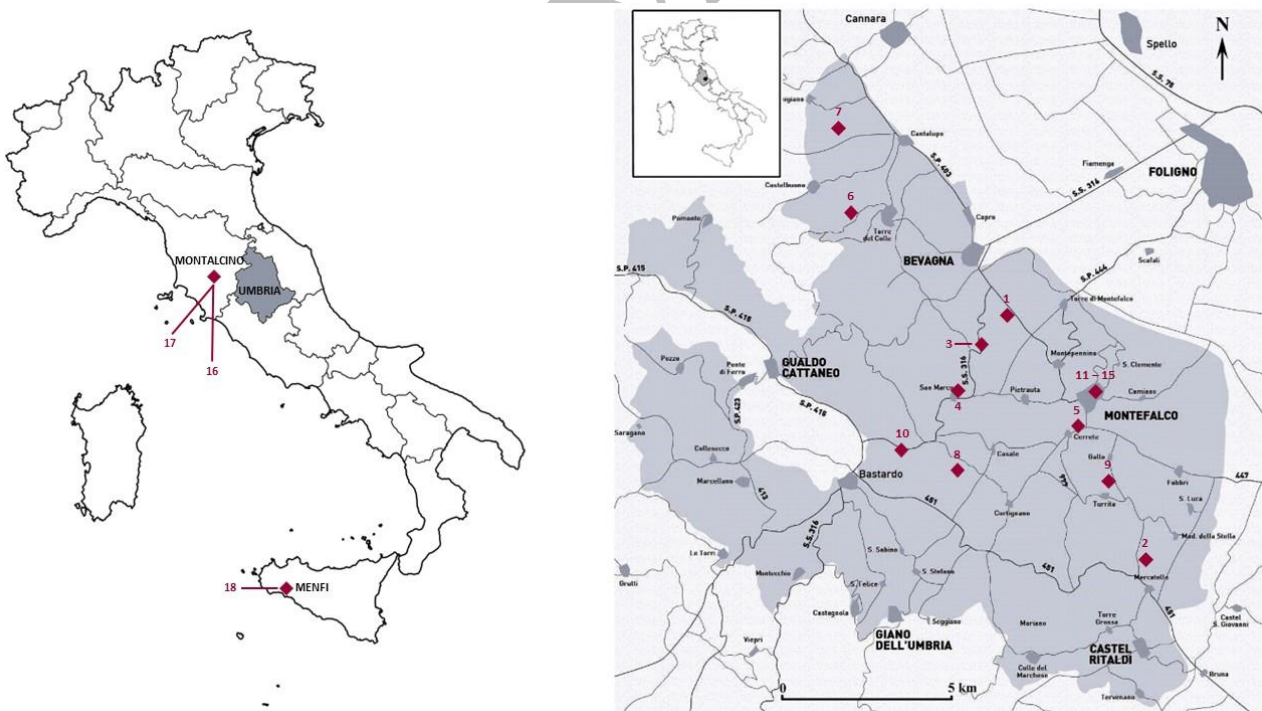
140 However, there are also examples of wine GIs that, on the other hand, can present some drawbacks.  
141 Firstly, considering the number of producers, if a GI becomes too large, or quality standards are not  
142 enforced properly enough, free-riders could damage the GI's quality to the point that consumers may  
143 end up relying more on private brands as signs for product's quality [15]. In this regard, López-Bayón  
144 et al. [15] have considered the Spanish wine industry, and found that, above a certain threshold of  
145 producers affiliated with a GI, there is a decrease in the average product's quality (thus, there is an  
146 inverted U-shaped relationship between number of producers and quality). The authors also find that  
147 very large GI areas are also less effective; indeed, a larger geographic area can lead to an increase in  
148 heterogeneity among producers, to a less effective control of the standards, and to an increase in  
149 internal conflicts. Still in regard to a GI area, Alston and Gaeta [16] consider the case of the Prosecco  
150 GI, in Italy. When Prosecco became a DOC, the area included in the GI was greatly expanded with  
151 respect to the small original production area within the Veneto region. The original areas were then  
152 promoted to DOCG status, which should be considered an advantage. However, in reality, they face  
153 a strong competition from the Prosecco DOC area, which has considerably lower production costs  
154 and higher yields, due to being located in a plain area and the use of a more mechanized production.  
155 Alston and Gaeta [16] also reflect on the strictness of PDO disciplinaries, which can hinder innovation  
156 and adaptation to the market, as in the case of "varietal wines", that is, wines usually made from a  
157 single variety that is indicated on the wine label. This is especially common for premium wines from  
158 New World regions, but this trend is catching up also in Europe, where "varietal wines" are classified  
159 as non-GI. Many European producers are now switching from PDO to PGI (Protected Geographical  
160 Indication) wines, allowing them to use different varieties and innovations not allowed under PDO  
161 rules. This is the case of Super Tuscan wines, which, despite being PGI wines, are now sold at even  
162 higher prices than other PDO wines from Tuscany [16].

163

164 **3. The Sagrantino di Montefalco DOCG area**

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

178 **Figure 1** Italy and Montefalco DOCG area; interviewees are represented by the corresponding  
179 number (see Table 1).



180

181 *Source: authors' elaboration from Fatichenti [20]*

182



#### 183 4. Methodology and data

184 We used a qualitative approach to answer the question: “What is the influence of a wine GI on local  
185 development?”. There are different reasons for this choice. Firstly, the main goal is understanding  
186 the potential impact of the GI by using the lived experiences of informants [21], without the  
187 constraints needed for a quantitative, regressive or statistical approach. Secondly, the inductive  
188 approach enables research discoveries to arise from the prevalent, dominant, or meaningful patterns  
189 present in unprocessed data, without the restrictions of structured methodologies. Thus, data analysis  
190 was based on the so-called grounded theory [22], particularly using the approach of Gioia et al. [23].  
191 This inductive model captures the informants’ experience in theoretical terms, allowing to illustrate  
192 the dynamic relationships among the emergent concepts that represent the phenomenon of interest  
193 [23]. Through this method, the risk of key themes being obscured, reframed, or overlooked, due to  
194 preconceived notions in data collection and analysis procedures, is circumvented [24]. In addition,  
195 this technique places significant emphasis on how individuals engage with others, and utilise elements  
196 from their environment to shape their identity and address challenges [25].

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

199

##### 200 4.1 Data collection

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

207 In total, 25 individuals were interviewed, and these stakeholders were selected after consulting some  
208 local wineries and the Consorzio Tutela Vini Montefalco. These profiles include: 12 winery  
209 owners/directors from the Montefalco area; 7 wine experts –journalists, commercial directors, wine  
210 consultants, and 5 representatives of local institutions. In particular, 2 of the winery owners/directors  
211 were also interviewed due to their role inside the local Consortium, and thus considered among the 5  
212 institutional representatives. In addition, our study includes also 2 respondents from Tuscany  
213 (Montalcino) and 1 from Sicily (Menfi), in order to understand how other areas in Italy have been  
214 able to develop thanks (mostly or in part) to the wines produced there, and eventually highlight  
215 differences or similarities between various territories. We consider that the amount of interviews in  
216 this study has allowed us to reach an appropriate level of saturation, which is considered the ideal

217 guide for the number of interviews to be conducted, especially when using a grounded approach. This  
 218 means that including new interviewees would have not provided us with new information on this  
 219 topic [26]. According to Guest et al. [27], this can occur within the first twelve interviews. The semi-  
 220 structured interviews lasted between 20 and 50 minutes each, and were all digitally recorded. The  
 221 interviews were conducted in Italian by the authors, transcribed *verbatim*, and then translated in  
 222 English.

223 Then, primary data sources were supplemented with secondary data sources about Sagrantino di  
 224 Montefalco DOCG, with updated data on production, reputation, and local tourism. Incorporating  
 225 and validating this information in the analysis aided in piecing together the historical narrative.

226 **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	Montefalco (PG), Umbria	Wine Consortium – Winery	President – Producer
#12	Member	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

227

#### 228 4.2 Data analysis

229 Following the initial phase of data collection, our focus shifted towards systematically mapping the  
 230 diverse ways in which informants highlighted the contributions of Sagrantino di Montefalco DOCG  
 231 to local development. We then applied the open coding technique to evince the first-order concepts.  
 232 The interviews' transcripts were independently coded by the authors, and once the initial round of  
 233 coding was completed, we consolidated the coded data and engaged in thorough discussions to merge  
 234 and refine our individual interpretations. By means of multiple iterations, the raw data was gradually  
 235 aggregated, resulting in the identification of first-order concepts. Then, by summarising the concepts  
 236 using theoretical lenses, we classified them into five second-order themes. Here, we entered into a  
 237 more theoretical dimension, and literature is further explored to find emerging themes that could help  
 238 us describe and explain the phenomenon that we are observing [23]. Finally, by analysing the  
 239 connections among the second-order themes, two aggregate dimensions were then established.

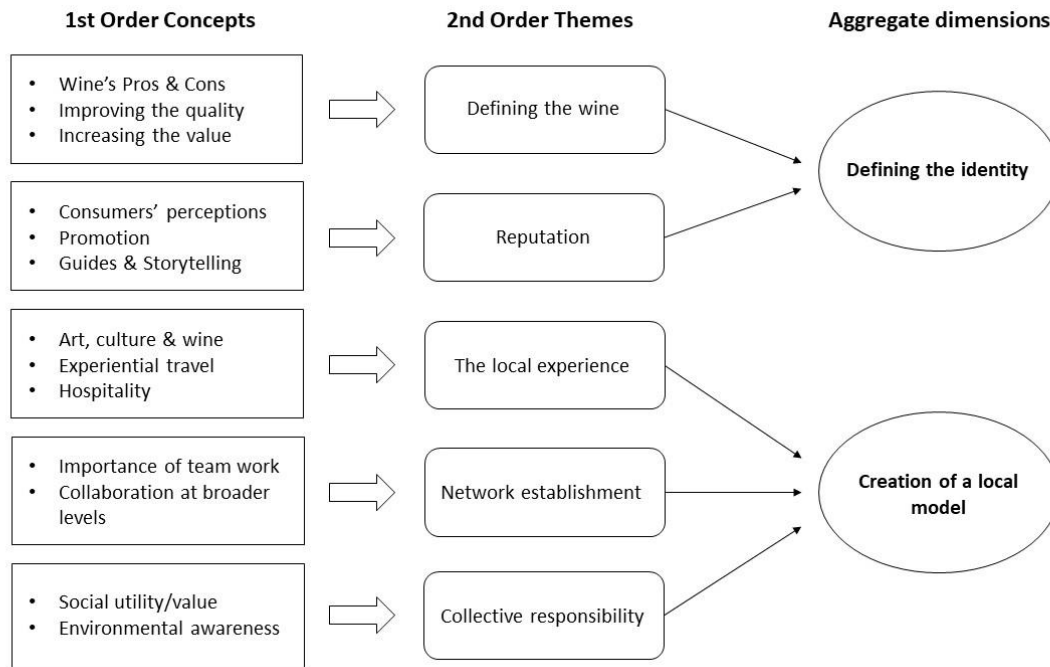
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### 241 5. Findings

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

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

253 **Figure 2** Data structure



254

255 *Source: authors' elaboration*

## 256 5.1 Defining the identity

### 257 5.1.1 Defining the wine

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

262 Local laws to protect vines and wines began to be established during the first half of the 14th century.  
263 By 1622, punishments and sanctions were imposed “for any person who cut the grape vine”.  
264 Sagrantino wine presumably got its name from the Franciscan friars who grew the grapes and  
265 produced a sweet wine they would then use for “sacraments” [18]. The Museum of San Francesco in  
266 Montefalco bears witness to the ancient history of the territory, where art and products of the land,  
267 including wine, have been interwoven since antiquity.

268 *The museum serves as a true representation of what one can discover in the territory. Just*  
269 *below the museum there are the Franciscan cellars, where Sagrantino wine was first*  
270 *produced. The museum narrates this ancient history with the intention of providing tourists*

271 *with the tools to explore the current development of the wine denomination. The "Strada del*  
272 *Sagrantino", a dedicated route for wine tourism, offers experiential tourism opportunities,*  
273 *and works closely in collaboration with the Museum of San Francesco. [#15]*

274 The indigenous Sagrantino grape variety is considered by many to be unique due to its high content  
275 of tannins and polyphenols, which allows to produce an extremely recognisable wine, with respect to  
276 other red wines, especially from Italy (*Wine's pros & cons*).

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

282  
283 *The strength of Sagrantino lies in being an indigenous grape variety, characterized by its*  
284 *uniqueness, and a wine must distinguish and qualify itself for specific features. [...] I believe*  
285 *that due to the grape's characteristics, Montefalco Sagrantino is truly a one-of-a-kind wine.*  
286 *It is easily recognizable thanks to its distinctive sensory traits, and of course, it has a rich*  
287 *narrative to share. [...] A wine must be unique, [...] and it is a great symbol for the promotion*  
288 *of a territory. [#19]*

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

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

304 *For quite some time, our focus has been to produce wines that are not overly strong, aiming,*

305 *instead, to create wines that are "drinkable" and enjoyable. While it is important for the wines*  
306 *to convey the distinctive characteristics of Sagrantino and exhibit its unique personality, we*  
307 *also strive to ensure that they are approachable and not challenging to be appreciated. [#02]*  
308

309 *There has been a technical evolution after the pursuit of concentration, richness, extraction,*  
310 *and significant maturation typical of the 1990s. [...] The wines we taste today are more*  
311 *relaxed, more elegant, more balanced, and fresher, as much as a polyphenol-rich grape*  
312 *variety allows. This is an extremely positive fact because it shows the intelligence, attention,*  
313 *and sensitivity of a generation of producers who are facing international markets and are*  
314 *capable of [...] providing a more modern interpretation of the wine. [#24]*  
315

### 316 5.1.2 Reputation

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

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

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

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

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

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

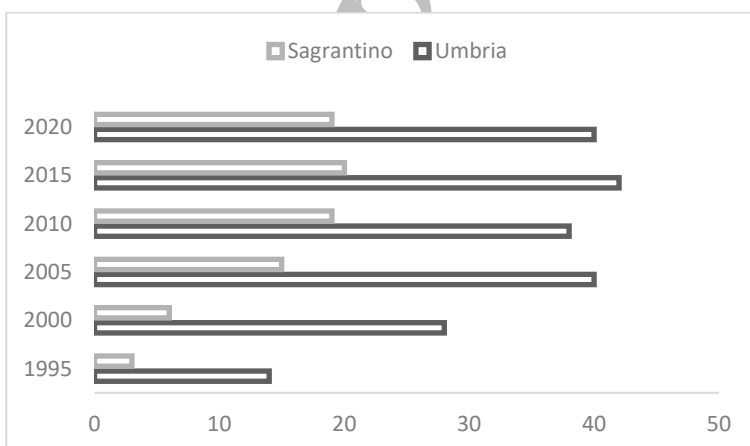
342 *It is the wine's quality that determines its score, and this remains true. But in the context of*  
343 *wine storytelling, creating a narrative around that wine is, in my opinion, the modern key to*  
344 *good wine journalism. It involves telling the whole story that revolves around that glass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

347 The efforts of producers and the Consorzio in redefining and improving Sagrantino di Montefalco  
348 DOCG seem to have borne fruit, particularly in terms of enhancing the wine's reputation. As a  
349 flagship wine of the Montefalco area, Sagrantino has also had a helpful impact on promoting other  
350 wine products in the region.

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

358

359 **Figure 3** Wineries in Umbria and the Montefalco Sagrantino DOCG area ranked on Gambero Rosso  
360 Vini d'Italia (1995-2020).



361

362 *Source: authors' elaboration based on data from Gambero Rosso Vini d'Italia*

363

364 Indeed, there has been a significant increase in the number of Umbrian wineries producing Sagrantino  
365 over the years. In 1995, the percentage of wineries included in the guide that produced Sagrantino di

366 Montefalco DOCG was less than 20%. However, by 2020, this figure has nearly doubled, with almost  
367 half of the total regional wineries now producing Sagrantino di Montefalco DOCG.

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

371

## 372 5.2 Creation of a local model

### 373 5.2.1 The local experience

374 *Even the producers have transformed into connoisseurs and promoters of this area. Not only*  
375 *they have knowledge of the landscape's beauty and the uniqueness of exceptional products*  
376 *like Sagrantino and other wines produced here, but they have also deepened their*  
377 *understanding of the cultural heritage associated with the area. Therefore, there is a close*  
378 *synergy between art, culture, territory, landscape, and the excellent products part of our Eno-*  
379 *gastronomy, which has allowed the local community and the territory to grow. [#13]*

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

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

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

395 Enotourism can sometimes become a driving force for the development of a certain territory,  
396 increasing its competitiveness and improving its wine production, thus leading to the economic  
397 regeneration of rural areas and to a higher quality of life for local inhabitants [32]. Different studies  
398 have illustrated that there is a positive correlation between GI wines and tourism activities [33, 34],  
399 with accommodation and food service being among the economic sectors in DOCG municipalities

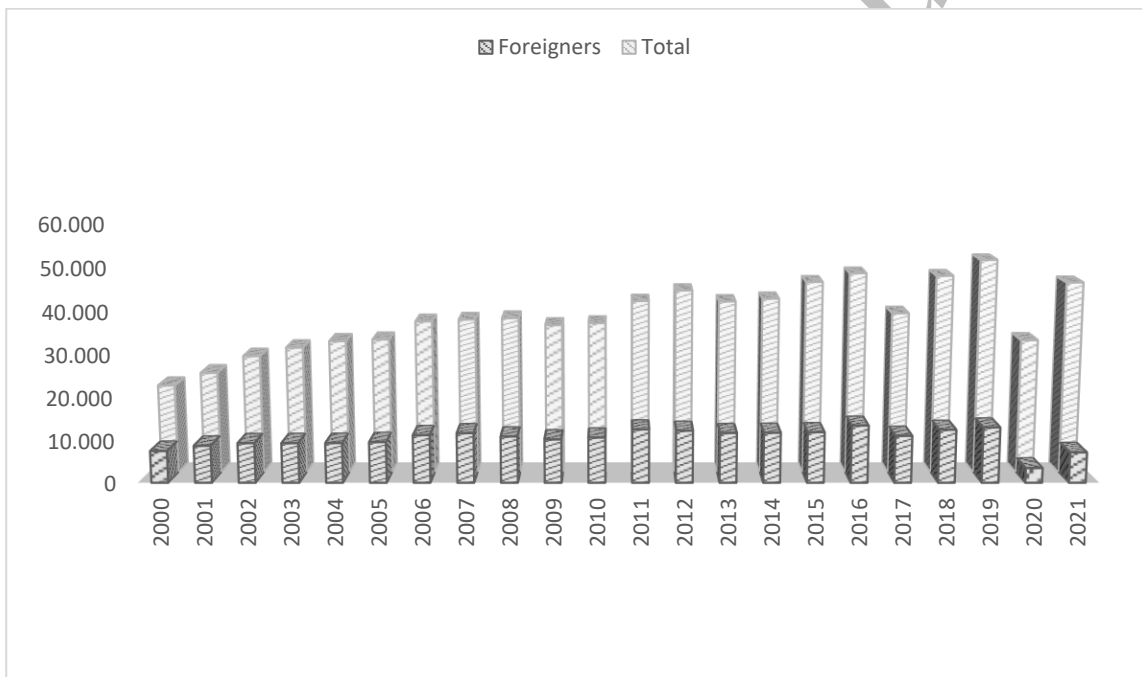


400 that grow the most with respect to the share of employment [3]. Confirming these findings, many  
401 respondents acknowledge that the increasing recognition of Sagrantino may have contributed to the  
402 overall growth and reputation of the entire Montefalco DOCG area, fostering the creation of more  
403 accommodations and dining establishments of higher quality, catering to the growing influx of  
404 visitors.

405 *Previously, there were probably only one hotel and one restaurant in the area, but today there*  
406 *are approximately 20-25 restaurants. [...] This growth in the hospitality sector has started a*  
407 *virtuous circle: as more tourists began to visit, the demand for accommodations, wineries,*  
408 *and the excellent wines, increased as well. Consequently, this attracted more tourists to the*  
409 *area, further stimulating the expansion of the restaurant and hospitality industry. Notably, the*  
410 *qualitative aspect of the touristic offer has also seen a substantial improvement. [#02]*

411

412 **Figure 4** Tourist arrivals in the Montefalco Sagrantino DOCG municipalities



413

414 *Source: authors' elaboration based on data from Regione Umbria*

415

416

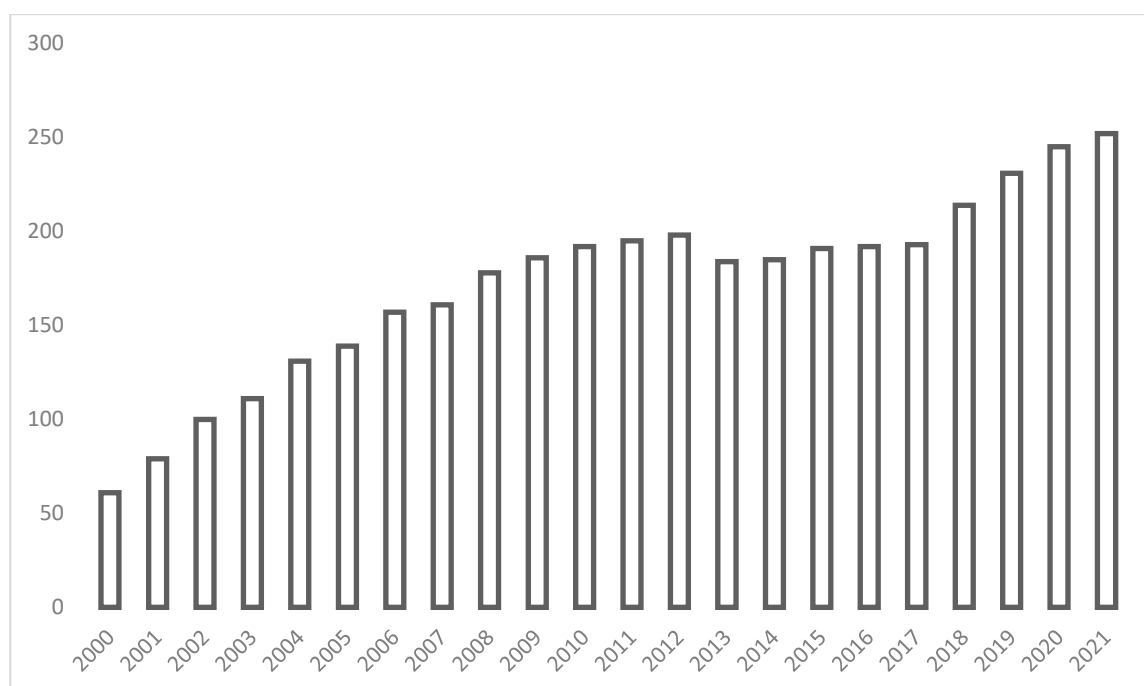
417

418

419

420

421 **Figure 5** Number of hospitality structures in the Montefalco Sagrantino DOCG municipalities



422  
423 *Source: authors' elaboration based on data from Regione Umbria*

424

425 Figure 4 and 5 prove that both the number of tourists and the number of hospitality structures in the  
426 municipalities that constitute the DOCG area have indeed increased overall during, at least, the last  
427 21 years (except for 2020, due to the Covid-19 pandemic), thus supporting the statements of the local  
428 stakeholders interviewed.

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

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

437 The local economy based, on one hand, on tourism and, on the other hand, on agriculture has  
438 developed especially during the last thirty years, with bottom-up collaborations between wineries and  
439 hospitality accommodations, started from the mutual necessity to drive the local economy and help  
440 each other. The respondents highlighted the role of regional institutions in recognizing the  
441 opportunity to foster rural tourism linked to the experience provided by farms.

442 *The Region of Umbria played a crucial role in this development by funding the renovation of*

443 *old farmhouses and increasing the availability of accommodations. [...] In the last two*  
444 *decades, the entire Umbria region has witnessed a substantial increase in offerings, including*  
445 *accommodations and dining options. Consequently, there has been a shift in perception, and*  
446 *now the area is rich in hospitality and culinary options. [...] Significant emphasis has been*  
447 *placed on providing training courses in communication and foreign languages. [#07]*

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

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

456

#### 457 5.2.2 Network establishment

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

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

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

474 Wine, food, and tourism can provide a unique experience and lifestyle to visitors, thanks also to the  
475 synergy and cooperation of the different entrepreneurial activities [35]. This means that the local  
476 stakeholders must be able to work together in order to accomplish their common goals. In the

477 Montefalco area there are different institutional actors that can influence the local economic  
478 development and the growth of the wine sector. These are the municipalities, the Consortium, and  
479 public associations such as Strada del Sagrantino (which aims to promote the territory and its  
480 products). However, it is important to acknowledge that their collaboration has also presented  
481 challenges and conflicts along the way. Nonetheless, the efforts put into working together have  
482 ultimately proven to be fundamental in attaining the positive outcomes associated with local  
483 development.

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

489 However, the collaboration, especially among individual producers within the Consortium, appears  
490 to not be fully developed yet to effectively address future challenges, particularly those related to  
491 climate change and more innovative and sustainable agriculture. The current focus seems to be mostly  
492 on promotion and quality control, and this approach may hinder the development of more substantial  
493 cooperation among member wineries.

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

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

511 among competitors [36].  
512 Some producers also recognise the absence of an agreed minimum threshold price for Sagrantino di  
513 Montefalco DOCG in the market. Setting a minimum price, below which the wine should not be sold,  
514 could significantly enhance the perceived economic value of the product, contributing to better  
515 position Sagrantino di Montefalco DOCG as a premium and high-value wine. This could benefit both  
516 producers and the overall market perception. Additionally, other interviewees expressed their concern  
517 about the lack of a proper zoning system for the Montefalco DOCG area. The implementation of such  
518 system could identify vineyards that are more suitable for producing higher quality wines, thus  
519 enabling the production of cru wines that could be sold at higher prices. In this way, the region can  
520 strengthen its identity and reputation as a premium wine-producing destination. Indeed, as wine  
521 consumers become increasingly knowledgeable about quality and reputation indicators, they will pay  
522 more attention to signals that highlight the quality of the producer and the specific site where the wine  
523 is produced [37].

524 *Perhaps, from the beginning, we didn't identify specific zoning areas. Initially, we had around*  
525 *50 hectares, but today we have hundreds, if not thousands. Implementing zoning would have*  
526 *allowed us to produce Sagrantino, grand crus, and premier crus, which could have justified*  
527 *higher prices and helped us improve the overall quality of our wines. [#05]*

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

534 *If we do not make the consumer understand what Umbria is, no matter how magnificent the*  
535 *Montefalco territory is and how excellent and unique the wine is, we will always face more*  
536 *challenges. It is crucial to continue growing as the Montefalco region, but at the same time,*  
537 *we must work as Umbria, creating awareness of the "Umbria" product in the world of wine.*  
538 *Then, Montefalco can grow, just as all the other DOCs and DOCGs in our region can grow.*  
539 [#09]

540 Indeed, it is crucial to recognise the dedication of individual producers, the Consortium, and other  
541 local stakeholders in their efforts to promote Sagrantino di Montefalco DOCG and Montefalco  
542 territory. Other existing successful models in other regions could be taken as an example, such as the  
543 Montalcino area in Tuscany. By studying and adopting some of the strategies and best practices  
544 implemented in Montalcino, Montefalco can further enhance its marketing and branding efforts.

545 Emulating successful models while retaining its unique identity will strengthen the overall promotion  
546 of Sagrantino and Montefalco wines, contributing to the growth and recognition of the region in the  
547 global wine market. The importance of collaborating among individual producers for the success of  
548 a GI is well explained in the words of respondent #16 from Montalcino:

549 *In our opinion, what has made the difference for Montalcino, beyond the individual efforts of*  
550 *the wineries, is the teamwork of the Consortium. It has kept the producers together, pushing*  
551 *for a unified marketing strategy and providing significant support to everyone. Of course, the*  
552 *quality of the wine plays a crucial role, but the Consortium has played, and continues to play,*  
553 *a key role in promoting and raising awareness of the denomination [#16]*

554

### 555 5.2.3 Collective responsibility

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

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

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



579 network of collaborations with other regional wine GIs and food products.  
580 In addition to the social utility of GIs (*social value*), another important topic emerged from the  
581 interviews is related to the environment and sustainability. In particular, the evolution of the climate  
582 in the last years have caused concerns with respect to droughts, floods, climate extreme events and  
583 the sustainability of viticultural practices.

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

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

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

598

## 599 **6. Discussion of results**

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

607 Firstly, when speaking with producers, it becomes evident that they have invested significant effort,  
608 over the past decades, in understanding and meticulously working on the characteristics that  
609 distinguish Sagrantino di Montefalco DOCG as a wine that is extremely unique when compared to  
610 other wines. This, in addition to other ways to add value for the product (e.g., quantity produced, sale  
611 prices, etc.), is helping local producers to *define the wine*. By diligently improving and promoting the  
612 unique characteristics of Sagrantino, the wineries, and potentially all the municipalities within the

613 Sagrantino di Montefalco DOCG area, are shaping the image they project to both national and  
614 international consumers and visitors. This careful cultivation of the wine's identity and reputation will  
615 play a pivotal role in attracting and captivating wine enthusiasts, tourists, and potential buyers,  
616 positioning Sagrantino di Montefalco DOCG as a distinctive and compelling player on international  
617 markets. Considering this responsibility, the producers, along with wine experts such as sommeliers  
618 and journalists, recognise their crucial role in effectively communicating the wine and its uniqueness  
619 to consumers. By collaborating with wine experts and staying attuned to consumer feedback,  
620 producers can refine their messaging, ensuring that the essence of Sagrantino and its distinctiveness  
621 are accurately conveyed to the target audience. All these elements concur in what has been described  
622 as *defining the identity* of Sagrantino di Montefalco DOCG.

623 Relatively to the geographical area in which the wine is produced, three main themes emerge through  
624 the interviews; these are: the *local experience*, *network establishment* and *collective responsibility*.  
625 Regarding the first issue, locals have become increasingly aware that now tourists not only want to  
626 visit a place, but they aim to understand what makes it unique, its traditions and culture: they are  
627 looking for the so-called *experiential travel*. Also, the awareness of environmental sustainability,  
628 biodiversity, and natural resources plays a significant role in shaping tourists' perceptions and  
629 preferences. The tourism offerings in the Montefalco area have been adapting to meet these evolving  
630 needs, fostering a deeper connection between cultural events, art, wine, and the local natural  
631 surroundings. The transformation of Montefalco in a unique tourist destination, thanks also to the  
632 presence of its agricultural and viticultural productions, can be compared to what happened in the  
633 rural community of Menfi (Sicily) as well, illustrating a proper structural shift from agricultural to  
634 "agri-touristic" areas. Furthermore (concerning *network establishment*), it emerges how much  
635 important is the collaboration between producers and local institutions, also in the future. Most local  
636 stakeholders emphasised the significance of having a shared long-term vision for the territory,  
637 recognising its importance in guiding sustainable development and growth. However, some  
638 stakeholders acknowledged the need for more concerted efforts in addressing specific challenges  
639 related to climate change and other technical issues. Additionally, many interviewees acknowledged  
640 that cooperation needs to extend to different and broader levels beyond the local context. For example,  
641 collaborating at a regional level to promote local wines, products, and touristic resources, to reach an  
642 effective communication strategy. Moreover, respondents highlighted the importance for wine  
643 industry to create social utility and benefits for the local community, by creating job opportunities,  
644 supporting local businesses, but also enhancing community engagement through cultural and social  
645 events related to wine tourism. In particular, the idea of the social utility of wine production in a rural  
646 area has also emerged from the interviews with the producers from Tuscany, although with their own

647 differences. In Montalcino, the local wine Consortium has taken it upon itself to help those in need  
648 in the area and to engage in public utility activities. This initiative could also be developed in the  
649 Montefalco area, where it could increase the already strong connection between the community and  
650 wine production. However, something that is already being done in both these two GI areas, is to give  
651 educational and job opportunities to young students in the area, by providing them with useful skills  
652 and knowledge in viticulture. In addition, similarly to social utility, there is a growing awareness of  
653 the crucial relationship between wine production and environmental sustainability. Some producers  
654 recognised that adopting sustainable viticulture practices should be embraced collectively by as many  
655 producers as possible, in order to have lasting positive impacts on the environment. All these aspects  
656 contribute to the *creation of a local model* for territorial development.

657

## 658 **7. Conclusions and limitations**

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

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

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

680 The "*Creation of a local model*" is rooted in the idea of stakeholders' collaboration and the

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

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

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

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

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

714 Finally, this paper aims to offer an overview of the territorial challenges, but also benefits, that a rural

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

723 **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 Eno-gastronomy, 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,	#06



		hospitality, parks and cultural institutions, but also olive oil and other local foods productions.”	
Collective responsibility	Social 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

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