

Santeramo, Fabio Gaetano; Seccia, Antonio; Nardone, Gianluca

## Article

# The synergies of the Italian wine and tourism sectors

Wine Economics and Policy

## Provided in Cooperation with:

UniCeSV - Centro Universitario di Ricerca per lo Sviluppo Competitivo del Settore Vitivinicolo,  
University of Florence

*Suggested Citation:* Santeramo, Fabio Gaetano; Seccia, Antonio; Nardone, Gianluca (2017) : The synergies of the Italian wine and tourism sectors, Wine Economics and Policy, ISSN 2212-9774, Elsevier, Amsterdam, Vol. 6, Iss. 1, pp. 71-74,  
<https://doi.org/10.1016/j.wep.2016.11.004>

This Version is available at:

<https://hdl.handle.net/10419/194525>

## Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

## Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<https://creativecommons.org/licenses/by-nc-nd/4.0/>



# The synergies of the Italian wine and tourism sectors

Fabio Gaetano Santeramo<sup>\*</sup>, Antonio Seccia, Gianluca Nardone

*University of Foggia, Via Napoli, 25, 71122 Foggia, FG, Italy*

Received 2 June 2016; received in revised form 12 October 2016; accepted 29 November 2016

Available online 7 December 2016

## Abstract

Italy is a worldwide known destination for tourism. In the Italian food industry, wine is a major sector.

We analyse the synergic relations between the domestic tourism in Italy and wine industry exploring data on flows of domestic tourism among the Italian regions and key indicators for the wine industry. The region of origin of tourists is a determining factor in the choice of destination; we also highlight the role of customer loyalty. The political implications are relevant: institutions and political actors could exploit the synergies between the tourism and the wine industries by promoting excellence in wine.

© 2017 UniCeSV, University of Florence. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

**Keywords:** Italy; Gravity model; Food Tourism

## 1. Introduction

In Italy, wine production has spread throughout the country and in each region is of particular importance from economic, territorial, historical, social, and cultural landscape points of view. Some regions have a higher reputation than others by virtue of both higher volumes of production and established tradition of high quality. Another key sector for the Italian economy is tourism, which, despite involving all the national territory, plays more important role in some regions than in others; this is partly explained by the attractiveness of major art cities and most famous seaside resorts. Compared to the total flow of tourists staying in Italian accommodations, it should be noted that domestic tourism, that is the flow of Italian tourists who move to Italian locations, represents more than 50% of the total visitors. Among the reasons that drive Italians to choose a destination, natural beauty and cultural attractions play important roles. However, the attraction exerted by food and wine products, especially if related to the territorial aspects, cultural and historical, is constantly

growing. Considering specifically the wine sector, a segment of tourists, defined as wine tourists, takes such a product as the main reason for travelling, resulting in a flow of tourists to established Italian wine regions in order to visit vineyards and wineries. Similarly, tourists who do not judge visits to wineries as main motivation in selecting destinations, consider the opportunity to taste wines or to visit wineries or vineyards to appreciate landscapes as an appealing opportunity to discriminate among different travel destinations. Therefore, the choice of destination may be determined by variables related to the characteristics of wine production and promotion. In addition, food and wine tourism is often associated to several forms of ecotourism and responsible tourism, as attested by the growing trends of social responsibility in the tourism industry (Golja and Krstinic Nizic, 2010; Del Chiappa et al., 2016).

Based on a growing literature that is exploring the relationships between the wine and touristic industry (Saayman and van der Merwe, 2014; Lee et al., 2015), we specifically aim at analyzing the synergic relations between the Italian tourism and wine industries. To this extent we adopted an econometric model applied to the most recent available data on flows of domestic tourism among the Italian regions, for a period of five years until 2012. The choice of a gravity specification was supported by the tried and tested application of these models in studies on migration and tourism (Arita et al., 2011; Eryigit et al., 2010;

<sup>\*</sup>Corresponding author.

E-mail addresses: [fabio.santeramo@unifg.it](mailto:fabio.santeramo@unifg.it) (F.G. Santeramo), [antonio.seccia@unifg.it](mailto:antonio.seccia@unifg.it) (A. Seccia), [gianluca.nardone@unifg.it](mailto:gianluca.nardone@unifg.it) (G. Nardone).

Peer review under responsibility of Wine Economics and Policy.

Fourie and Santana-Gallego, 2011). Moreover, the gravity model is able to isolate the effect of different determinants. The results obtained from the present study lead us to make important considerations concerning the geographical distribution of tourists. First, it may be noted that the region of origin of tourists is a determining factor in the choice of destination; second, it is possible to highlight the role of customer loyalty. In summary, the present work has identified and characterized the role that the wine sector may play as driver of domestic tourism in Italy. The political implications seem of great importance: in order to foster the development of the regional economy, institutions and political actors could exploit the synergies between the tourism industry and the wine, and assist efforts to promote the area and excellence wines.

## 2. The Italian wine industry: An overview

Italy has a very old history in grape growing and wine production, dating back to ancient times. Its geographical characteristics, with extensive shoreline and widespread mountains and foothills, that generate a variety of altitudes, climates, and soil conditions, have contributed to a huge diversity of terroirs, grape varieties and wine styles (Corsi et al., 2004; Seccia et al., 2015).

In 2013 the Italian vineyard area for wine production was 646,485 ha (Ismea, 2014a, 2014b) of which 335,758 ha for the production of wines with Protected Denomination of Origin (PDO), 163,082 ha for wines with Protected Geographical Indication (PGI) and 147,644 ha for the production of common wines. PDO certification includes wines with Controlled Denomination of Origin (called DOC in Italy) and wines with Controlled and Guaranteed Denomination of Origin (called DOCG in Italy); production of such wines is mainly concentrated in Northern Italy, where about 60% of the area is devoted to high-quality wine production. In 2013 the existing land used for organic production was 44,384 ha, with 23,763 ha being converted into organic, leading to a total of almost 68 thousand hectares.

Italian winegrowing is characterized by small family farms, most of which are not specialized in the cultivation of grapes alone; their number in 2010 was 383,645 with an average size of 1.7 ha.

A huge number of native and imported varieties are grown, the Italy's Ministry of Agriculture and Forestry grants "authorized" status to some 350 grape varieties, but more than 500 other documented varieties exist. The most popular grapes are Sangiovese (more than 70,000 ha), Trebbiano Bianco, Catarratto Bianco, Montepulciano, Merlot and Barbera (Istat, 2010).

In 2013 the Italian production of wine was more than 48 millions of hectolitres and among the twenty regions, the top three for production by volume (millions hectolitres) are Veneto (9.1) Emilia Romagna (7.3), Sicilia (7.2) and Puglia (5.9). The production of organic wine has been almost 3.5 million hectoliters, almost 7% of the total production. PDO wines production accounted for 15 millions of hectoliters while the production of PGI wines has been 13.4 millions of hectoliters (Ismea, 2014a, 2014b).

The production of PDO and PGI wines is very concentrated as the first ten PDO denominations represent almost 46% of the potential and 42% of the certified production. The regions Veneto, Piemonte, Toscana, Emilia Romagna, Abruzzo and Trentino Alto Adige cover over 60% of the 2013 production. At the same time, for PGIs the first three regions constitute 75% of the potential production, and Veneto, Emilia Romagna, Sicilia, Puglia and Toscana cover almost 80%. At the end of 2013 in Italy there were 405 PDO certifications (including DOC and DOCG) and 118 PGI, with some certifications being multiregional. The region with the most PDO wines is Piemonte (58) while Sardegna has the highest number of PGI (15). The appellation system is geographically-driven, based on the subscription to the idea of "terroir" and the tendencies of certain grapes to grow especially well on certain land.

The Italian wine industry is rather fragmented with the first four companies accounting for just 10% of total volume sales, and counts more than 62 thousand wineries which employ 13,124 workers. In 2012 the turnover of the industry was over 12.5 billion Euros accounting for almost 9 percent of the total food industry.

In 2013 Italians have consumed 20.2 millions of hectoliters of wine, mostly bought (61%) in off-trade channels, with a per capita consumption of 35 liter.

Currently, Italy is the world's largest wine exporter by volume and the second by value following France with over 5.0 billion Euros, representing 15% of the Italian food export value, of which 2.6 billion from PDO wines and 1.5 billion from PGI wines. The main destination by volume is Germany which concentrates almost 30% of the exported wine, while the top three importing countries by value are the United States, Germany and the United Kingdom, together accounting 52% by value and 57% by volume, followed by Switzerland, Canada, Japan and other countries (ICE-Italian Trade Agency, 2014).

In Italy grapegrowing has contributed to create a huge diversity of rural landscapes and the production of a multiplicity of wines which differ in terroir, sensorial characteristics, historic and cultural aspects. The role played by viticulture, in addition to the production of wine, particularly quality wine, is essential for the preservation of the different and well known landscapes. One of the most known, the vineyard landscapes of Langhe-Roero and Monferrato in Piemonte region has been inscribed onto UNESCO's World Heritage List and a second site, the vineyard landscape of the Prosecco Hills of Conegliano and Valdobbiadene, in Veneto region, is a candidate to being inscribed to the List. Wine production is a low intensive activity with high environmental compatibility in suitable areas which are not *readily reproducible*. Such characteristics have contributed to activate a demand for rural tourism in grape growing areas. Such demand has a positive trend with almost 1.9 million tourists in 2009 recording an increase of 4.0% of arrivals and 2.0% of presence compared to the previous year (Istat). In order to satisfy the demand of rural tourism, and in particular of wine tourism, many initiatives, both at national and regional level, have been activated, promoting trips to

wine producing regions and visits to wineries with wine and food tasting. Such initiatives are promoted by organizations both Italian (Città del vino and Movimento turismo del vino) and European (European Assembly of European Wine Regions - AREV and European Network of Wine Cities).

An important project concerns The Wine Trails, regulated by the Italian Law n. 268/1999, which are defined as "paths signed and advertised with appropriate road signs along which insist natural, environmental and cultural values, vineyards and wineries, single or associated open to public; they are devices through which wine-producing territories and wine production can be revealed, marketed and used as touristic supply". In Italy there are 154 Wine Trails. Almost all Wine Trails have a website. The website range from well-organized (15%) to non-operational. The involved cities are almost 1450, more than 400 denominations, 3300 farms (Censis servizi, 2013).

### 3. Methodological framework

The Gravity Model is a workhorse in applied analysis of international trade and has been widely adopted to analyze trade (Rose, 2002; Dal Bianco et al., 2015) and tourism flows (Fourie and Santana-Gallego, 2011; Santeramo, 2015; Santeramo and Morelli, 2015; Santeramo and Barbieri, 2016).

According to the gravity model, the bilateral volume of flows among countries is proportional to the "mass" of the countries (proxied by Gross Domestic Product per capita, population, or combinations of those variables), and inversely related to their respective distance:

$$X_{ij} = G Y_i^\alpha Y_j^\alpha / D_{ij}^\gamma \quad (1)$$

where  $G$  is a scale factor,  $X_{ij}$  represents the trade or migration flow,  $Y_i$  and  $Y_j$  proxy the economic masses of country of origin ( $i$ ) and country of destination ( $j$ ), and  $D_{ij}$  is the distance between the two countries. After log-linearization the gravity model can be rewritten as follows:

$$\ln X_{ij} = \alpha_0 + \alpha \ln Y_i + \beta \ln Y_j - \gamma \ln D_{ij} + \varepsilon_{ij} \quad (2)$$

This fundamental model has been expanded to take into account other determinants of international flows. Deardorff (1995); Head and Mayer (2013) have shown that several candidates should be taken into account: population, income per capita, exchange rates, commercial agreements, and the presence of a common language or colonial links.

We estimate the model running simple OLS in that we do not observe zero flows; therefore more complex estimation techniques are not necessary in this case.

The dataset spans from 2008 to 2012 and includes data on all Italian regions. The dependent variable is the number of arrivals in Italian touristic structures. The data was extracted from the database of the Italian Institute of Statistics (ISTAT). The per capita income (of the people in the country of origin and in destination city) has been also extracted from the database of the Italian Institute of Statistics (ISTAT). The

geographical distance among capitals, expressed in kilometers, is intended to be the shortest travel distance by car.

We have proxied Italian supply with per capita income. We expect a positive relationship with the number of arrivals.

On the demand side, the region of origin purchasing capacity has been proxied by per capita income. We expect a positive sign as well.

Frictions are a major issue in international dynamics. The geographical distance among regions proxies travel costs. Moreover we have added a dummy equal to 1 if the region is an island. Finally, we have introduced several variables that capture the relevance of the wine sector and of the agro-food sector as a whole. In particular, we have introduced, for each destination region, the amount of wine production, the number of PDOs and PGIs wines, the number of other PDOs and PGIs agro-food products, the number of credited wineries and the number of wine exhibitions. Our a-priori expectations are that all variables should be positively correlated with the number of incoming tourists, hence expect the estimated coefficients to be positive.

The adopted gravity model is the following:

$$\begin{aligned} \ln \text{Arr}_{ijt} = & \alpha_0 + \alpha \ln \text{Supp}_{it} + \beta \ln \text{Dem}_{jt} + \gamma \ln \text{Dist}_{ij} \\ & + \delta \ln \text{WProd}_{it} + \zeta \ln \text{WPDO}_{it} + \eta \ln \text{WPGI}_{it} \\ & + \theta \ln \text{OtPDO}_{it} + \iota \ln \text{OtPGI}_{it} + \kappa \ln \text{CredWin}_{it} \\ & + \mu \ln \text{Exhibitions}_{it} + \lambda \text{Island} + \varepsilon_{ijt} \end{aligned} \quad (3)$$

### 4. Empirical results

The results are presented in Table 1. We present several models for robustness check, while we refer to the last column for results interpretation. We show that income in the region of destination has positive and statistically significant coefficients. Distance is negative and statistically significant. The values (0.2 and  $-1.1$ ) are in line with existing literature. Surprisingly, if the region is an island tourism flows are larger. Indeed, this may capture the extraordinary capacity of attraction of Sicily and Sardinia regions due to beautiful landscape, beaches, and natural attractions. The number of PDOs, both for wine and other products, plays a significant role, and in particular the higher the number of denomination of origins, the higher the number of tourists. On the other hand, the number of PGI wines and other agro-food products is negatively correlated with the number of incoming tourists. However, the overall effects of the denominations of origin are positive. Surprisingly, we found that the number of credited wineries is negatively correlated with tourism flows. On the opposite hand, we found that an increase in the number of wine exhibition is positively correlated with tourism flows: the role of marketing seems strong in promoting the attraction of wine tourists.

Table 1  
Empirical findings from the gravity-type model.

	Model 1	Model 2	Model 3	Model 4
Supply: Income	0.104 (0.61)	0.382 (2.22)*	0.346 (1.94) <sup>+</sup>	0.017 (0.09)
Demand: Income	0.249 (7.93)**	0.243 (8.28)**	0.245 (8.42)**	0.249 (8.56)**
Frictions: Distance	−1.118 (19.87)**	−1.115 (20.05)**	−1.115 (20.19)**	−1.118 (20.32)**
Island (1 if island)	0.466 (5.03)**	0.279 (3.13)**	0.298 (3.35)**	0.383 (4.22)**
Wine Production		0.000 (1.34)	0.000 (0.02)	−0.000 (1.80) <sup>+</sup>
Number of PDO		0.033 (10.91)**	0.033 (6.37)**	0.035 (6.84)**
Number of PGI		−0.001 (0.06)	−0.007 (0.82)	−0.018 (2.01)*
Number of other PDO		0.123 (8.25)**	0.140 (8.74)**	0.150 (9.31)**
Number of other PGI		−0.129 (8.85)**	−0.126 (8.58)**	−0.126 (8.60)**
Number of credited wineries			−0.000 (0.19)	−0.002 (2.38)*
Number of Wine Exhibitions				0.007 (4.41)**
Constant	13.953 (7.81)**	10.333 (5.79)**	10.612 (5.79)**	13.662 (7.00)**
Observations	2299	2095	2095	2095

<sup>+</sup>  $p < 0.1$ ;

\*  $p < 0.05$ ;

\*\*  $p < 0.01$ .

## 5. Concluding remarks

Tourism and the agro-food production are key sectors for the Italian economy. Promoting one sector usually requires that governments allocate specific budget. In a period a crisis, however, less and less resources are available, and trading-off among sectors is a dictat.

We show that promoting agro-food sector has significant impacts on tourism. In particular, the number of PDOs is a key determinant of tourism flows. The implications of our note are very relevant: to the extent that governments aim at promoting tourism, promoting agro-food and wine sector is a successful choice. Our analysis also indicates in which direction regional governments should concentrate their efforts: marketing campaigns through wine exhibition, and policy to promote food and wine quality (e.g. though denominations of origin) are likely to be catalyst for the tourist incoming.

Future research may focus on the role that these sinergie may have for the Rural Development measures and, in particular, for the supply of cultural ecosystem services in vineyard landscapes (Winkler and Nicholas, 2016). This is left to future research.

## Conflicts of interest

The authors declare no conflict of interest.

## References

- Arita, S., Edmonds, C., La Croix, S., Mak, J., 2011. Impact of approved destination status on Chinese travel abroad: an econometric analysis. *Tour. Econ.* 17 (5), 983–996.
- Censis servizi, 2013. XI Rapporto annuale osservatorio sul turismo del vino.
- Corsi, A., Pomarici, E., Sardone, R., 2004. In: Anderson, K. (Ed.), *The World's Wine Markets: Globalization at Work*. Edward Edgar, Italy.
- Del Chiappa, G., Grappi, S., Romani, S., 2016. Attitudes toward responsible tourism and behavioral change to practice it: a demand-side perspective in the context of Italy. *J. Qual. Assur. Hosp. Tour.*
- Dal Bianco, A., Boatto, V., Caracciolo, F., Santeramo, F.G., 2015. Tariffs and non-tariff frictions in the world wine trade. *Eur. Rev. Agric. Econ.* 43 (1), 31–57.
- Deardorff, A.V., 1995. Determinants of bilateral trade: does gravity work in a neoclassical world? NBER Working Papers No. 5377. Cambridge, MA.
- Fourie, J., Santana-Gallego, M., 2011. The impact of mega-sport events on tourist arrivals. *Tour. Manag.* 32 (6), 1364–1370.
- Golja, T., Krstinic Nizic, M., 2010. Corporate social responsibility in tourism—the most popular tourism destinations in Croatia: comparative analysis. *Manag.: J. Contemp. Manag. Issues* 15 (2), 107–121.
- Head, K., Mayer, T., 2013. Gravity equations: workhorse, toolkit, and cookbook. Centre for Economic Policy Research.
- ICE-Italian Trade Agency, 2014. Il mercato tedesco dei vini di uve fresche, Presentation Berlin, march 2014.
- Ismea (2014a). Report Vini a Denominazione di Origine.
- Ismea (2014b) Le caratteristiche della filiera.
- Istat, 2010. 6° Censimento generale dell'agricoltura. caratteristiche strutturali delle aziende agricole.
- Istat ([www.istat.it](http://www.istat.it)).
- Lee, S., Bruwer, J., Song, H., 2015. Experiential and involvement effects on the Korean wine tourist's decision-making process. *Curr. Issues Tour.*, 1–17.
- Rose, A., 2002. Do we really know that the WTO increases trade, NBER Working Paper N. 9273.
- Saayman, M., van der Merwe, A., 2014. Factors determining visitors' memorable wine-tasting experience at wineries. *Anatolia* 26 (3), 372–383.
- Santeramo, F.G., 2015. Promoting the international demand for agritourism – empirical evidence from a dynamic panel data model. *Tour. Econ.* 21 (4), 907–916.
- Santeramo F.G., Barbieri C. (2016) On the demand for agritourism: a cursory review of methodologies and practice. *Tourism Planning & Development*.
- Santeramo, F.G., Morelli, M., 2015. Modeling tourism flows through gravity models: a quantile regression approach. *Curr. Issues Tour.* 19 (11), 1077–1083.
- Seccia, A., Santeramo, F.G., Nardone, G., 2015. Trade competitiveness in table grapes: a global view. *Outlook Agric.* 44 (2), 127–134.
- Winkler, K.J., Nicholas, K.A., 2016. More than wine: cultural ecosystem services in vineyard landscapes in England and California. *Ecol. Econ.* 124, 86–98.