ANALYSIS OF STAYING TIME IN ITALIAN AGRITOURISM USING A QUANTITATIVE METHODOLOGY: THE CASE OF LATIUM REGION

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ABSTRACT

The aim of this paper was to investigate and assess, using a quantitative empirical methodology, which variables influence the staying time at agritourism facilities in the Latium region of Italy. Using quantitative methodology derived from the chemical process of absorption, this case study explores the ability of a farm to absorb tourist flows. Findings point out the incidence of agritourists on the total tourism flow and the number of rooms are two variables directly correlated to the staying time. Simultaneously, the model estimated the level of “laziness” of tourists as a function of their staying time in agritourist facilities, which correlates directly with the distance to famous tourist resorts.

In Italian regions such as Tuscany and Trentino-Alto Adige there has been, since the early 1960s, a significant diffusion of rural farms specializing in offering overnight accommodation to small numbers of tourists and serving local traditional foods produced directly on the premises. These farmhouse enterprises were the early forerunners of agritourism, envisaged to diversify agricultural activities to increase income and quality of life in the countryside without having to operate within the confines of a legislative and codified framework. In fact, the base law to regulate this type of tourism in rural areas was only promulgated in Italy in 1985. Law no. 730/1985 provided a unitary pivotal legislative framework for Italian regions to regularize this non-codified type, considered as a highly specialized form of tourism. In spite of the promulgation of the specific law and numerous subsequent regional regulations, however, agritourism in Italy remains a niche sector that is more appreciated by foreign tourists than by domestic ones, and requires specific policies to be able to take advantage of an increasing tourism demand (Santeramo 2015; Santeramo and Barbieri 2017).

In other European countries, such as Germany, Austria, and France, as well as in the United States, agritourism facilities offering overnight accommodations and

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other types of rural hospitality have been available since the 1950s, giving farmers
the opportunity to diversify their sources of income (Santeramo and Morelli 2015,
2016; Tew and Barbieri 2012). In Italy over the last fifteen years, following the
promulgation of specific regional and national laws concerning rural tourism, and
the allocation of funding disbursed by the European Union through the National
Rural Development Programme (NRDP), there has been a significant growth of the
agritourism sector’s offering accommodations for overnight stays. Furthermore,
Italian agritourism establishments have had a notable positive effect in adding value
both to a farm’s produce and to local culinary traditions, linking typical food and
wines to cultural and recreational activities, and strengthening the nexus between
elements in the Italian countryside in a perspective of protection and increased
multifunctionality of the rural space. This experience corroborates the results of
agritourism assessed in certain American states regarding specific needs of farmers,
such as the improvement of their quality of life (Tew and Barbieri 2012).

According to some scholars, Italian agritourism is generally considered as an
alternative, and cheaper, type of overnight accommodation facility where tourists,
particularly from abroad, can spend their holidays staying close to the more well-
known tourist destinations, such as Rome, Florence, Venice, or to regions such as
Tuscany and Umbria that belong to specific areas of tourism or rural and agri-food
districts (Galluzzo 2006, 2009a). Agritourism and certified quality agri-food
products have helped to lead the Italian primary sector toward a consolidated
development in certain rural areas, formally encouraged by specific national and
regional laws, and brought positive benefits in terms of increased multifunctionality
(Galluzzo 2008b, 2010, 2014). Specifically, agritourism in rural districts has
brought added value through an integrated process that exploits the value of
sociocultural activities, agrarian heritage, and historical-cultural assets in their
territory.

Many scholars have sought to investigate the phenomenon of agritourism and
its definition in depth (Phillip, Hunter, and Blackstock 2010; Sznajder, Przezbórska,
and Scrimgeour 2009). Much of this work relies on inference, since finding a
common definition of agritourism and rural tourism in different countries is not so
easy, due to differences among activities and services offered by farms to tourists
and, in fact, often no distinction is made between the two. In Italy, on the other
hand, a clear definition of what is meant by agritourism was made in 1985, and
twenty years later, in 2006, an attempt was made to define the meaning of rural
tourism too. According to this latter definition, rural tourism is a type of hybrid
tourism in which commercial activities are more predominant than agricultural
ones, whereas, on the contrary, agritourism is not deemed to be a commercial activity and has its own pillar of foundation and existence specifically centered on farming activities.

Since the early 1990s, because of the reforms to the Common Agricultural Policy introduced by EU commissioner Ray MacSharry, there has been a diversification of agricultural activities in farms in Italy and other European countries into agritourism, organic farming, and rural tourism (Van der Ploeg, Long and Banks 2002), which has had direct implications on the environment through the production of positive externalities (Ohe and Ciani 2011) and caused a transition from a productivist agrarian model to a post-productivist one (Ilbery 1998). Over the same period, inhabitants of urban centers have rediscovered the rural context as a space able to produce public goods and externalities, giving greater value to rurality. In this strand of rural development, all stakeholders are involved in strengthening the rural space through a holistic perspective that focuses on a new type of tourist, the agritourist, who is very demanding in assessing the impact of their holidays on the environment and its protection (Mattiacci and Vignali 2004).

Several Italian regions with a significant endowment of natural resources and tourist attractions, which are close to the most famous cities or consolidated sites of cultural heritage, and where finding deep-rooted Italian food and wine specialities is possible (such as Tuscany and Umbria), have seen a growth in the agritourism sector that emphasizes the specific role and function of a newly rediscovered agrarian cultural identity as a pivotal factor in the reduction of the effects of socioeconomic marginalization in the countryside (Contini, Scarpellini, and Polidori 2009). Consequently, agritourism has been identified as an economic pillar for development in rural areas, and for countering the flow of rural emigration from the countryside as well.

The motivations for farmers to diversify their productive output through the development of agritourism, organic farming, and certified quality agri-foods vary. Nevertheless, these activities have generally resulted in a strengthening of the role of farming within rural development, reduction in the effects of price squeezing, and reinforcement of environmental protection through positive externalities (Van der Ploeg 2006; Van der Ploeg et al. 2002).

The physical dimension of farms is an important factor influencing both the process of productive diversification into agritourism activities and the efficiency of the farms themselves (Galluzzo 2013). In this context, financial subsidies allocated by the National Rural Development Programme have supported many
initiatives oriented to enlarging the capital land endowment, supporting the generational turnover in the rural space, and enriching the rural fabric through a new generation of young and highly skilled farmers. This new generation of farmers in Italy and in other European countries believes in agritourism as one element within a raft of measures aimed at the integrated development of the countryside, grounding their management and governance on the twin pillars of multifunctionality and pluriactivity.

Many researchers have highlighted how the farms offering overnight hospitality in rooms or apartments are predominately scattered in rural areas, where there has been a significant increase in such activities aimed at stabilizing levels of income through diversification into secondary activities (Ohe and Ciani 2011). This has required important changes to the management of Italian agritourism enterprises, particularly for those found in less favored territories, which together comprise more than 60% of the national agricultural area.

Following the transition from a productivist agricultural model to a post-productivist one, the role of farmers has become increasingly pivotal to socioeconomic and environmental protection (Galluzzo 2006, 2008c; Ilbery 1998). In this framework, agritourism is generally considered one of the most important pillars to implement models of multifunctionality, generating numerous kaleidoscopic local rural networks that tightly link local traditions, typical foods, and rural handicrafts in an overall perspective that encourages protection of the rural environment (Ventura and Milone 2000). Comparing various Italian regions, such as Tuscany, Umbria, and Latium, both certified quality agri-foods and agritourism represent important levers for augmenting farmers’ income levels and enhancing the value of tangible and intangible assets in the territory (Galluzzo 2008a; Sonnino 2004), which together bring positive effects for the development of rural districts. Nevertheless, studies investigating the factors of attraction for domestic and foreign tourists have underlined income and distance as the main variables that act on flows of agritourists (Galluzzo 2006, 2008b, 2008c, 2009b; Santeramo and Morelli 2015, 2016).

The National Rural Development Programmes developed for Italy and for other European countries have been a fundamental financial tool to support transformational processes for farming through productive diversification into rural tourism and agritourism (Galluzzo 2008c). The latter has the potential advantage of adding value to agricultural productions and local foods accruing from the high level of willingness to pay on the part of agritourists who are seeking certified quality food and wine products that are closely tied to the countryside and its
culinary traditions (Clemens 2004; Galluzzo 2008c). In summary, agritourism provides a shining example of kaleidoscopic and holistic modalities of conservation, not only in Italy but also throughout the rural areas of Europe, in a sustainable green perspective of tourism. In the Italian context in particular, agritourism has emphasized a holistic preservation of rurality through the exploitation of its own assets such as certified quality agri-foods, organic farming practices, and rural heritage (Privitera 2009).

AIM OF THE PAPER AND METHODOLOGY

The aim of this paper is to investigate and assess, through the application of a quantitative empirical methodology that uses the Italian region of Latium as a case study (see Figure 1), which variables – such as the flow of agri-tourists and the growth and development of the agritourism sector, measured by proxy number of beds – have an impact on overnight stays in Italian farmhouse holiday accommodation. To analyse this, data were drawn from the annual tourist statistical survey carried out by the Italian National Institute of Statistics (ISTAT). In Italy, each individual region has promulgated its own laws according to the specific characteristics of its agricultural context, which impose constraints on administrative obligations and the number of tourists that are possible to be host to.

Figure 1. Location of Latium Region in Grey in Italian Peninsula.
Many research studies have assessed the demand in the agritourism sector using quantitative methodologies, which can be broadly divided into two main categories: stated preference methods and revealed methods (Santeramo and Barbieri 2017). The most important quantitative revealed preference methodologies in the existing literature have been focused on the gravity model, on the travel cost method, and on the hedonic regression model (Santeramo and Barbieri 2017). In contrast, the revealed preference methodologies have investigated the demand for rural tourism by means of SWOT analysis or the item response theory, which have corroborated the existence of a nexus between agriculture and local farmers mediated by agritourism.

The originality of this paper lies in the employment of a quantitative approach, based on the physical chemistry theory of the adsorption matrix, to identify the optimum level of efficiency of agritourism enterprises in terms of operating periods, in relation to rural areas in the region of Latium.

The model has been used to assess the levels of income and profit in function of the period of operation and the number of tourists hosted in each farmhouse holiday establishment. The variable utilization of capacity of farmhouse accommodation is also important to augment the overnight stays of tourists directly, even if in Italy capacity is strictly constrained by regional and national legislation to a maximum of 50 guests per day.

The quantitative methodology for this study has been derived from the chemical process of absorption of chemical components by a solid matrix, which has been employed to avoid the necessity of using the more complicated approach proposed by Fick in his first and second law (Crank 1980; Smith 2004). For this case study, the matrix is the agritourism, which is an operating farm that can absorb the flows of tourists coming from Italy or abroad. The mathematical formula employed modifies the previous model proposed by Pes et al. in 2014, and is used in dairy chemistry. It is:

\[ t = \frac{(P^2 \cdot A \cdot S)}{(C^2 \cdot D^2)} \]

where \( t \) is the total overnight stays in agritourism facilities; \( P \) is the ratio between the total overnight stays in agritourism facilities compared with the total overnight stays in all structures able to host tourists in the Latium region; \( A \) is the operating period of agritourism facilities over the year, measured in number of days (with a minimum operating period threshold in the area of study estimated at 90 days); \( S \) is the ratio between the number of tourists hosted in an agritourism facility...
compared with the maximum number of 50 legally provided for by current regional and national legislation (meaning, therefore, that no establishment can exceed a total value of 50 people per day); $C$ is the ratio between the number of agritourism facilities compared with the total number of structures able to accommodate tourists active in the Latium region; and $D$ is the ratio between arrivals in agritourism facilities compared with the total arrivals in all accommodation structures overall.

RESULTS AND DISCUSSION

Comparing the data for a two-year period from 2013–2014 (see Table 1), the findings relating to the region of Latium reveal a stable total of overnight stays made by tourists, even if both Italian as well as foreign tourists are particularly attracted by famous tourist resorts, sites, and cities such as Rome that have great historical importance (see Figure 2). This corroborates the previous findings proposed by other authors, according to which distance is an influential variable in attracting tourists and in generating tourist flows (Santeramo and Barbieri 2017; Santeramo and Morelli 2015, 2016; Tew and Barbieri 2012). Focusing attention on alternative types of tourist accommodation such as B&Bs, guesthouses, and agritourism facilities reveals that the overnight stays recorded for these facilities are three times less than for traditional types of tourist accommodation such as hotels (see Figure 3).

Table 1. Main Descriptive Statistics in Latium Region Over Two-Year Time 2013–2014

<table>
<thead>
<tr>
<th>Variable</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Agritourism in Latium region</td>
<td>884</td>
</tr>
<tr>
<td>Total tourist structures in Latium region</td>
<td>9226</td>
</tr>
<tr>
<td>Total arrivals in Latium region</td>
<td>10,298,408</td>
</tr>
<tr>
<td>Arrivals in agritourism in Latium region</td>
<td>28,410</td>
</tr>
<tr>
<td>Total overnight staying in tourist structures in</td>
<td></td>
</tr>
<tr>
<td>Latium region</td>
<td>2.98</td>
</tr>
<tr>
<td>Overnight staying in agritourism in Latium region</td>
<td>4.57</td>
</tr>
</tbody>
</table>

SOURCE: Elaboration on data from www.istat.it
Figure 2. Overnight Staying Over 2013–2014 in Traditional Tourist Structures (Source: Elaboration on data from www.istat.it)

Figure 3. Overnight Staying Over 2013–2014 in Non-Traditional Tourist Structures (Source: Elaboration on data from www.istat.it)
The reason for the significant increase in the demand for agritourism by foreign tourists is correlated to a desire to make the most of rurality and its recreational and leisure activities; hence, foreign tourists prefer to spend their holidays staying in agritourisms or in bed and breakfast facilities far away from established tourist destinations, as other authors have argued (Santeramo 2015; Santeramo and Morelli 2015, 2016).

The recent statistical data series for tourism flows have revealed a sharp increase in arrivals of foreign tourists, particularly from other European Union countries and from the United States of America (see Table 2). Focusing attention on overnight stays in Italian tourist structures, the findings have highlighted a greater increase of tourists coming from extra EU countries compared with those coming from within the European Union.

Table 2. Arrivals and Stays of Tourists in Italy Over Two Years 2013–2014 (Source: Elaboration on data from www.istat.it).

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<tbody>
<tr>
<td>European Union........</td>
<td>7,856,389</td>
<td>48,128,100</td>
<td>8,191,116</td>
<td>48,459,857</td>
</tr>
<tr>
<td>Not European Union</td>
<td>920,588</td>
<td>4,972,048</td>
<td>1,011,107</td>
<td>5,249,965</td>
</tr>
<tr>
<td>From abroad ...........</td>
<td>1,497,075</td>
<td>5,362,946</td>
<td>1,663,700</td>
<td>5,708,945</td>
</tr>
<tr>
<td>Canada ..................</td>
<td>118,619</td>
<td>414,607</td>
<td>126,420</td>
<td>416,110</td>
</tr>
<tr>
<td>United States ..........</td>
<td>558,114</td>
<td>1,910,781</td>
<td>605,632</td>
<td>2,006,400</td>
</tr>
</tbody>
</table>

In Italy, an analysis of the data series since 1958 relating to traditional and non-traditional tourist accommodation facilities has highlighted a growth in the number of non-traditional structures at the end of 1980s, following from the promulgation of the specific national law and other regional regulations aimed at legally recognizing alternative types of tourist accommodation such as agritourism facilities and Bed and Breakfasts (see Figure 4).

Agritourism facilities in Italy are sparsely and unevenly scattered across different regions, even if in the last 14 years, owing to the special financial subsidies distributed under the Common Agricultural Policy (CAP), there has been a marked increase in the number of these farmhouse accommodation facilities operating overall. The financial support distributed through the National Rural Development Programme to encourage multifunctionality and diversification in Italian farms
through the development of agritourism and rural tourism, had a more pronounced and positive impact in the first seven-year period of the programme’s operation, from 2000-2006, than it did in the second period, from 2007-2013 (see Figure 5).
The statistical data series for the Italian agritourism sector from 2001 to 2014 reveals a decrease in the average number of beds offered in farmhouse holiday accommodation, because of economic crises, and of a change in the demand of Italian agritourists, who generally seek to eat in agritourism farms rather than to stay in them (see Figure 6). Furthermore, from the findings it is possible to identify the traditional and common type of Italian agritourism as a family-run rural tourism enterprise that is open for nine months a year, and can be host to a limited number of guests, on average no more than 15 people, well below the legal maximum fixed at 50 people per day.

Since 2003 there has been a sharp increase in the number of agritourism enterprises through all the regions of Italy. Focusing attention on the type of farmhouse enterprises most commonly found in Italian rural areas, agritourism operations offering accommodation in single rooms are more predominant than those purely focusing on catering, even if, due to the economic recession from 2008 to 2011, there has also been a notable decrease in the number of these catering agritourism facilities (see Figure 7).
Focusing the analysis on our area of study, namely the region of Latium, over the two-year period 2013–2014, and comparing this region with other neighboring regions such as Tuscany and Umbria characterized by long-standing traditions of agritourism facilities, certified quality food, and tourist attractions, the finding reveals a fundamental dichotomy. In Umbria and Tuscany, the average value of overnight stays was above 150 days per year for both 2013 and 2014 (see Figure 8). In contrast, the findings for the Latium region record a value of overnight stays that is above the Italian average value of 100 days per year. Therefore, it can be said that the impact of Rome as a factor of attraction for tourists staying in agritourism facilities in the Latium region is not as efficient and significant as the impact of famous tourist cities in Tuscany or Umbria. In fact, in Rome, the average total of overnight stays is approximately 40 days per year, compared with 150 days in Umbria and Tuscany. In the other provinces of the Latium region, the average total overnight stays of agritourists per establishment is less than 30 days per year. This has partially corroborated the hypothesis that the choice of tourists to spend their time in an agrarian enterprise is not based on the need to find a cheaper type of accommodation compared with other options. Rather, the agritourist specifically
elects to spend their holiday staying in farmhouse accommodations with the sole purpose of satisfying their own needs in terms of the amenities and rural setting on offer, choosing to spend their time in pleasant and quiet rural locations that are also able to offer traditional foods and wines.

Focusing attention on overnight stays in agritourism facilities, considering average number of beds per establishment in the three Italian regions of Latium, Tuscany, and Umbria, the value is below the national average of 90 days (see Figure 9). The region of Latium registers the lowest value, at around 20 days, which is six times lower than Umbria, and 10 times lower than Tuscany. In the Latium region, tourists coming from Italy or abroad largely prefer to stay in traditional tourist accommodation facilities rather than in agritourism operations if the primary purpose of their visit is to see the major tourist attractions in Rome. In contrast, there is a specific niche of tourists who choose to spend their holidays in agritourism facilities in Latium purely to relax in a rural place and eating traditional foods, corroborating the findings of other authors investigating demand.
The findings using the quantitative model, able to estimate the total of overnight stays in function of the arrivals of tourists, and of agritourists in particular, suggest that the larger the farm’s accommodation facilities are in terms of number of beds, the lower is the total of overnight stays (see Figure 10).

Conventionally, this analysis has been addressed by estimating overnight stays above the threshold of 90 days, which is the normal minimum operating period of farmhouse accommodation in the investigated area.

The presence of small traditional agritourism enterprises, characterized by small rooms and a modest endowment of beds suggests the need to augment the operating period, and consequently the total overnight stays of agritourists, to increase their level of income. In fact, increasing the number of operating days is more economically efficient than to increase the number of rooms and beds, which being strictly regulated by law is in any case a major insuperable constraint. The agritourism businesses of Latium have, on average, no more than 10 beds; hence an efficient length of stay is one week. In agritourism facilities that remain open all
year, however, the optimal efficiency threshold is a length of stay lower than four days per tourist.

Latium agritourisms reveal a variable return of scale in farmers’ net income; in fact, by increasing the number of agritourists up to the maximum level of hosted guests in agritourism fixed by law at 50 people, reaching a level of net income close to €200,000 would be possible in case of an all year operating period (see Figure 11). In contrast, small agritourism concerns with an endowment of less than 10 beds, typical of most of the agritourism facilities in the Latium region, could increase the income level of farmers appreciably only if their operating period exceeds 200 days per year (see Figure 12).

CONCLUSIONS

In Latium, small agritourism businesses are widely scattered throughout the rural areas of the region, and are overwhelmingly characterized by small family farmsteads with modest plots of land owned and managed by individual farmers. In this context, the advent of agritourism has offered a pivotal and unique opportunity for farmers to improve the level and stability of their income, as noted by Tew and Barbieri in 2012, while simultaneously reducing the socioeconomic marginalization and emigration in the rural areas of the Latium region.
Figure 11. Net income from Agritourism in Latium Region by number of beds on holiday farms.

Figure 12. Net income in traditional Latium Agritourism Businesses.
The research findings point to a sharp growth of agritourism in the area of study that is tightly connected to an increase in arrivals and overnight stays, predominately for tourists coming from other European countries, as noted by Santeramo and Morelli in 2016, and Santeramo in 2015. The findings have strengthened the notion that the agritourism sector in Latium, and in Italy overall, is sensitive to both the economic crises and to levels of international demand. In fact, during the economic recession of 2008–2011 there was a significant shrinking in both the number of tourists visiting and of the number of enterprises serving them.

The impact of Rome as a driver of demand for international tourist flows and for attracting agritourists is not as significant for agritourism facilities as it is for other non-traditional tourist accommodation facilities. Bed and Breakfasts are one of the most important sources of competition for agritourism in terms of intercepting a new tourism demand in Italy that predominantly focuses visits on a few days of the week, concentrating particularly on weekends. In summary, to counter this threat it is important, as Santeramo proposed in 2015, to extend the opening of Latium agritourism businesses to midweek periods, supporting this action by developing new marketing strategies and policy measures addressed to foreign tourists that could attract this niche segment of international demand.

The incidence of agritourists on the total flow of tourists and the number of beds available are two factors that can be seen to act directly on the overnight stays in all the investigated farms and on the level of economic efficiency of Latium farmers. In contrast, the findings have not shown a nexus between agritourism and famous tourist centers. It can be said, therefore, that the agritourist does not use the agritourism facilities as a less expensive option for accommodation compared with hotels or bed and breakfasts close to Rome, and the aspect of tourist destinations in Rome has no influence on the overnight stays in agritourism facilities.

The main results have corroborated the hypothesis according to which the total overnight stays are correlated to the willingness of guests to move from the farmhouse holiday accommodation, and that this factor is the main determinant in the time of staying in agritourism. The findings have highlighted that the overnight stays in agritourism facilities do not directly correlate with their distance from well-known places of historical and archaeological interest.

Focusing on the analysis in depth, it seems that the agritourism facility is imagined as an idyllic place for rural relaxation that can offer authentic traditional rural foods, and that it is this that is a main variable influencing overnight stays in agritourism facilities. In fact, a typical agritourist staying in a Latium agritourism spends more than one week on the farm, making the most of relaxing and enjoying
the peace and tranquillity of the countryside and experiencing the traditional local foods and wines.

It is more important for farmers operating agritourism concerns to extend the operating periods, both during the week and over the year, rather than to increase the number of rooms and number of beds. In fact, in many Italian regions, agritourism facilities operate for no more than six months of the year, concentrating on the few months over the spring and summer. Overall, offering 6 rooms and operating for between six and nine months a year would be enough to assure a good level of income for farmers.

Agritourism is not a purely theoretical concept, disconnected from other rural stakeholders. It also acts to preserve the rural lifestyle and protects the landscape by strengthening local networks linking rural culture, agricultural heritage, and wine and food traditions (Ventura and Milone 2000). Policy interventions should be oriented to finding ways of stimulating farmers to extend their operating period through financial subsidies allocated by the Common Agricultural Policy specifically aimed at farmers in disadvantaged rural areas, and by encouraging a diversification of agrarian activities in the countryside, using agritourism as a lever that is able in part to solve the socioeconomic marginalization and emigration of the rural areas of the region of Latium and, more generally, from other rural territories of Italy.

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REFERENCES


