

Cultural heritage and tourism attractiveness: the role of UNESCO sites

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Abstract

In this work, we empirically analyse whether being located in high attractive areas in term of cultural tourism offer positively affects neighbouring municipalities. In particular, besides considering the tourism offer at the destination, we evaluate if the presence of neighbouring UNESCO sites among cultural heritage offerings positively influence tourism arrivals, overnight stays and cultural visitors at the destination. To achieve these goals, we exploit a rich dataset collecting tourism data together with information about different socio-economic features of municipalities and museum routes, used as proxy of cultural heritage, crossing the municipalities in year 2018. The results of our analysis indicate that arrivals, overnights and in particular the total number of visitors tend to increase if municipalities are located near to highly attractive museums or UNESCO sites. Therefore, the presence of a cultural network that links neighbouring municipalities helps favouring agglomeration effects enhancing the tourism attractiveness of all destinations in the area.

L'obiettivo di questo lavoro consiste nell'analizzare empiricamente se l'essere localizzati in aree ad alta attrattiva in termini di offerta turistica culturale influisca positivamente sui comuni limitrofi. In particolare, oltre a considerare l'offerta turistica della destinazione stessa, valutiamo se la presenza di siti UNESCO e di musei altamente popolari in zone limitrofe influenzi positivamente arrivi turistici, presenze e visitatori nella destinazione. Per raggiungere questi obiettivi, sfruttiamo un ricco dataset che raccoglie dati sul turismo insieme a informazioni sulle diverse caratteristiche socio-economiche dei comuni e sui percorsi museali che attraversano i comuni nell'anno 2018. I risultati della nostra analisi indicano che gli arrivi, le presenze e in particolare il numero totale dei visitatori tende ad aumentare se i comuni si trovano vicino a musei di grande attrattività o siti UNESCO. Pertanto, la presenza di una rete culturale che collega i comuni limitrofi contribuisce a favorire effetti di agglomerazione aumentando l'attrattività turistica di tutte le destinazioni nell'area.

Parole chiave: UNESCO Sites; Museum routes; Tourism attractiveness; Agglomeration effects.

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1. *Introduction*

The tourism sector is one of the most powerful engines of growth and economic development (Romero and Molina, 2013; Brida et al., 2016). If correctly managed, tourism can provide real benefits to all countries, and in particular, to all local communities by creating job opportunities and fostering entrepreneurship.

Italy was the fifth most visited country in the world in 2019 with almost 42 million foreign travellers visiting Italy for holiday purposes generating receipts of more than €28 billion (Banca d'Italia, 2020). Italy is among the most tourism countries above all thanks to the enormous artistic and cultural heritage it possesses. Indeed, it is the country with the largest number of places recognized as World Heritage Sites with 58 UNESCO sites out of the 1157 sites recognized worldwide, 3882 museums, galleries and collections, 327 archaeological areas, 630 monuments, and 69 ecomuseums open to public in 2018. Within travel motifs, cultural holidays in cities of art are the first. Indeed, in 2018 arrivals in the art cities reached about 44 millions, considering both domestic and international flows (ISTAT, 2019; BI, 2019).

Due to the enormous economic relevance of the tourism sector in Italy, Italian municipalities should carry out activities aimed at enhancing the tourist attractiveness of their territory by implementing interventions aimed at improving the system of local offers and tourist services relating to information, tourist reception, entertainment, events and promotional initiatives in order to take advantage of benefits from tourism. A fundamental aspect of this process is the creation of an image that can positively emphasize all the features of the territory and attract tourists. Indeed, the choice of a municipality as a destination by tourists is dictated both by the geographical context (i.e. environmental characteristics and natural and cultural resources) and by the availability and quality of local amenities such as tourism infrastructures and attractions (Bernini and Guizzardi, 2016). In particular, the quality of the tourism offer may determine the choice of a certain municipality as a tourism destination. Focusing on cultural tourism, municipalities are making great efforts to obtain the official United Nations Educational, Scientific and Cultural Organization (UNESCO) designation for their historical and cultural attractions through the World Heritage Sites (WHS) label. Indeed, these kinds of labels may allow municipalities to further promote their cultural offer, extend their customer base, reduce seasonality, and extend overnight stays (Patuelli et al., 2013).

Several empirical works analysed whether UNESCO sites or in general cultural heritage at the destination contribute to increase the tourism attractiveness of local territories. However, there is not clear evidence on this topic. Indeed, Carr (1994), Alzua et al. (1998) and Vietze (2008) found that cultural heritage is a key determinant of tourism demand in a country since the natural, cultural, and manmade elements of a single tourism destination are strictly linked to local tourism demand being unique features that cannot be transferred to other destinations. Therefore, the idea is that cultural traditions and heritage can help generating a competitive advantage in attracting tourists. On the other hand, Cuccia and Cellini (2007) and Cellini and Cuccia (2013) didn't find any significant effect of cultural amenities on tourism flows in the long run. Focusing on the World Heritage Site label, there is a large body of literature investigating the effect of UNESCO sites endowment on tourism demand but again the results are mixed and inconclusive. The early literature on this topic mainly suggested that the WHS des-

ignation helps building a destination image and therefore, it boosts tourism flows, arrivals, revenues and job creation since the popularity of the destination increases and tourists tend to perceive a “surplus value” related to the site (Drost, 1996; Shackley, 1998; Thorsell and Sigatoy, 2001). However, later empirical literature mainly found that the effect of UNESCO sites endowment on tourism flows tend to be positive but relatively weak (Buckley, 2004; Soares et al., 2007; VanBlarcom and Kayahan, 2011). Moreover, there are also works finding a non-significant impact of the World Heritage Site designation on tourism demand (Hall, 2006; Cellini, 2011) but suggesting an important effect in terms of heritage protection and conservation. Therefore, despite the UNESCO itself recognizes substantial economic benefits related to the World Heritage Site designation due to an “*increase in public awareness of the site and of its outstanding values*” (UNESCO, 2012), the role of UNESCO sites in shaping tourism flows needs further attention and empirical investigation, especially when considering economic returns related to tourism destinations located in the neighbourhood of these sites since it is an almost unexplored topic.

A second tool aimed at enhancing visitor flows in local territories through the building of a local network that connects neighbouring places of cultural interest is the museum route strategy. This plan was developed by the Museum Networks and Territorial Systems commission (RST) established by the Italian Ministry for Cultural Heritage and Activities (MIBAC) in 2018 in order to foster cooperation and collaboration among cultural institutions and local territories to increasing the accessibility of cultural sites in Italy. As a consequence, favouring visitor flows in lesser-known and smaller sites by distributing visitors, promoting those museums which are lagging behind for various reasons such as size, type, accessibility, promotion, or location, and strengthening the local identity of places located in peripheral and less accessible areas are just some of the expected outcomes of this strategy.

While tourism literature highly concentrated on identifying the role of UNESCO sites within the cultural heritage offering in increasing tourism attractiveness at the local level, to the best of our knowledge, there are no studies considering whether being located near to municipalities hosting UNESCO sites positively affects municipalities. Therefore, in this work, we analyse (i) whether the presence of museum routes crossing the municipality and (ii) whether being located near to UNESCO sites positively affects tourism arrivals, overnights and museum visitors at the destination. To achieve these goals, we exploit a rich dataset collecting tourism data at the municipal level in year 2018 together with information about different socio-economic features of municipalities and museum routes crossing the municipalities, available from ISTAT. Following Panzera et al. (2020), we measure material forms of cultural heritage by the number of monuments, cultural landscapes and museums, and of cultural sites listed in the UNESCO World Heritage Sites international programme.

2. Data

The database used for this analysis was created by merging two different datasets: a database collecting tourism as well as socio-economic data for all Italian municipalities in the year 2018 and the dataset “museum routes in Italy in 2018”, both provided by the Italian National Institute of Statistics (ISTAT). In particular, the museum routes dataset consists of road itineraries connecting the museums and similar institutions surveyed by the ISTAT 2018 census survey. In

particular, for each territorial supra-municipal unit (UTS), the museum routes have been identified as itineraries connecting the main museum in each UTS (i.e. the more attractive museum in terms of number of annual visitors) to the other cultural institutions within a maximum distance of 30 minutes by car. The itineraries are very heterogenous since some connect a high number of museums and other types of cultural institutions, some are very concentrated in a specific local area, others are distributed through many kilometers in the territory beyond the borders of the province and of the region of reference. Therefore, for each Italian municipality, we have information on the presence or not of museum routes crossing the municipality and on whether these routes reach or not an UNESCO site.

Figure 1 shows the 107 museum routes identified by ISTAT in blue, the administrative division of the 7960 Italian municipalities in 2018 and the location of the 58 Italian UNESCO sites in pink. In particular, museum routes are composed of 3770 roads reaching 2470 municipalities and 2749 museum institutions that are the 56% of all Italian museums. Moreover, 50.5% of routes reach an UNESCO World Heritage site.

Fig. 1 – UNESCO sites and museum routes in the Italian territory

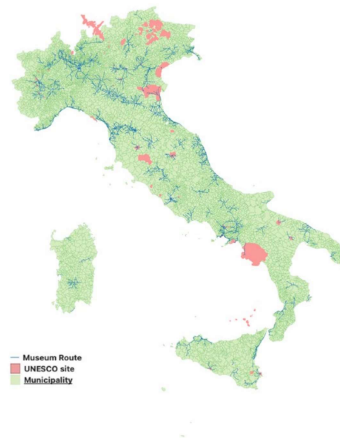
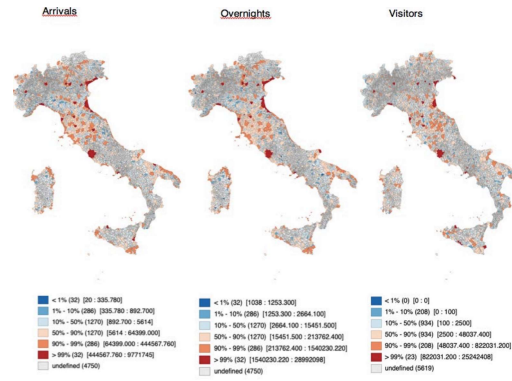


Figure 2 shows the percentile maps of the outcome variables arrivals, overnight stays and total number of museum visitors at the municipal level. Italian cities of art such as Rome, Naples, Florence and Venice result to be the most attractive poles. However, also maritime municipalities located in the Tyrrhenian and in the Adriatic as well as in the two islands are characterized by noticeable tourism flows. Considering internal territories, Trentino Alto-Adige and Umbria are between the most visited regions.

Fig. 2 – Italian municipalities' percentile map: arrivals, overnights and visitors in 2018



3. Methodology

In order to analyze the impact of belonging to museum routes and in particular, of routes reaching UNESCO sites on the tourism attractiveness of Italian municipalities, we estimate the model shown in Eq.(1)

$$Y_i = MuseumRoute_i\gamma_1 + UNESCOSite_i\gamma_2 + X_i\beta + Z_i\theta + \varepsilon_i \quad (1)$$

where the dependent variable Y_i represents tourism arrivals, overnights, or museum visitors (all in log-form) in order to proxy tourism attractiveness at the municipal level. The explanatory variables $MuseumRoute$ and $UNESCOsite$ are two dummy variables identifying respectively municipalities that are reached by at least one museum route and municipalities that are connected to a neighbouring UNESCO site by a museum route in a maximum driving time of 30 minutes. Thus, γ_1 and γ_2 are the related coefficients of interest representing respectively the impact of belonging to museum routes and being connected to UNESCO sites on tourism attractiveness. Considering the control variables, we introduce two sets of controls X and Z with associated parameter vectors β and θ . While the matrix Z includes the variables Pop and $ActivityRate$ representing respectively municipal population and the number of local enterprises over municipal population (both in log-form) in order to consider the level of urbanization and of economic development of the local territory, X considers different characteristics of the tourism sector at the municipal level such as the logarithm of the number of museums in the municipality ($NumMuseums$), the logarithm of the number of beds ($NumBeds$), the logarithm of the number of employees in the tourism sector ($NumEmpl$), a dummy variable $MainMuseum$ identifying whether in the municipality is located the main museum (i.e. the starting point of the route), and a set of dummy variables capturing the destination typology according to the tourism municipality classification carried out by ISTAT in 2019. Focusing on destination typologies, we include the dummy variable $Cult$ for cultural, artistic, historical, or landscaped destinations, the dummy Sea for maritime destinations, $Mountain$ for mountain destinations, $Lake$ for lake destinations, $Thermal$ for thermal destinations (identified as the reference cate-

gory), *CultSea* for destinations that are both maritime and cultural, *CultMountain* for destinations that are both mountain and cultural, *More* for destinations that have more than two vocations, *NoCat* for tourist destinations that do not have a clear categorization and *NoTur* for non-tourist municipalities.

4. Results

The results of the analysis are presented in Table 1.

Tab. 1 – Estimation Results

	<i>Arrivals</i>		<i>Overnights</i>		<i>Cultural visitors</i>	
	Coeff	SE	Coeff	SE	Coeff	SE
<i>MuseumRoute</i>	0.32**	0.12	0.37***	0.14	4.04***	0.12
<i>UNESCOSite</i>	0.29*	0.15	0.28*	0.18	0.53***	0.15
<i>Pop</i>	0.26***	0.03	0.27***	0.03	0.07***	0.03
<i>ActivityRate</i>	0.97***	0.20	0.92***	0.22	0.92***	0.19
<i>MainMuseum</i>	-0.3	0.46	-0.56	0.52	0.77*	0.44
<i>NumMuseums</i>	-0.01	0.09	-0.12	0.10	3.62***	0.09
<i>NumEmpl</i>	0.55***	0.03	0.60***	0.03	0.21***	0.03
<i>NumBeds</i>	0.76***	0.02	0.83***	0.02	-0.01	0.02
<i>Cult</i>	1.06***	0.32	1.12***	0.36	2.55***	0.31
<i>Sea</i>	0.90***	0.32	1.26***	0.37	0.06	0.31
<i>Lake</i>	0.96***	0.36	1.07***	0.41	-0.03	0.34
<i>Mountain</i>	-0.07	0.32	-0.08	0.37	0.82***	0.31
<i>CultSea</i>	0.64*	0.34	0.90**	0.38	1.74***	0.32
<i>CultMountain</i>	-0.20	0.34	-0.22	0.39	2.51***	0.33
<i>More</i>	0.77**	0.36	0.88**	0.41	2.00***	0.34
<i>NoCat</i>	-1.14***	0.3	-1.36***	0.35	0.36	0.29
<i>NoTur</i>	-1.79***	0.31	-2.16***	0.36	0.05	0.3
<i>Constant</i>	-0.54	0.37	-0.28	0.42	0.04	0.35

(***:p-value<=0.01;**p-value<=0.05;*p-value<=0.10)

Considering the two main variables of interest, we find that both museum routes and the presence of UNESCO sites contributes to significantly increase tourism with a similar magnitude. However, as expected, the positive effect resulting from being located near to World Heritage sites and highly popular museums is higher for cultural visitors. In particular, we find that the presence of UNESCO World Heritage Sites leads to almost 30% more tourist flows while their impact doubles considering museum visitors, suggesting an effective capacity of UNESCO sites to boost cultural tourism flows.

Accordingly, also the number of museums and the presence of a main museum (i.e. the starting point of the route) in the municipality are significant predictors of museum visitors but

they don't contribute to boost tourism arrivals and overnight stays. In sum, we detect positive effects resulting from the presence of UNESCO sites and main museums in the neighbourhood regardless of the outcome considered indicating that both the museum route strategy and being located near to UNESCO sites reinforce agglomeration economies in the area boosting the attractiveness of all neighbouring tourism destinations.

Focusing on the characteristics of the tourism sector at the municipal level, our results indicate that both the number of employees in the tourism sector and the number of beds available in the municipality are positively related to tourism overnight stays and arrivals. On the other hand, we detect a non-significant effect of the number of beds on museum visitors and a positive but weaker effect of tourism employees. Moreover, also the level of urbanization and of economic development of the municipality, respectively proxied by population and the activity rate, positively affect tourism arrivals, overnights and cultural visitors with a similar intensity. Therefore, we empirically confirm that more densely populated and more active municipalities in terms of businesses as well as municipalities with a higher endowment of tourism facilities and labour force employed in the tourism sector tend to attract an increased number of tourists and visitors at the destination.

Concerning destination typologies, we find that cultural destinations tend to have a competitive advantage in term of tourism flows and cultural visitors at the destination compared to other kind of destination typologies, followed by cultural and sea destinations and municipalities with more than two vocations. Moreover, while sea and lake destinations are characterized by a higher number of tourism arrivals and overnights, mountain and cultural and mountain destinations show increased level of visitor flows. Finally, as expected, tourists' arrivals and overnight stays tend to be reduced in non-tourism destinations and municipalities with a non-clear categorization.

4. *Conclusion*

In this work, we empirically analyse the role of museum routes and UNESCO sites, used as proxy for tangible cultural heritage, in increasing the tourism attractiveness of a destination. In particular, concentrating on Italian municipalities in the year 2018 we investigate whether tourism flows and the total number of museum visitors in the municipality are positively affected by the presence of UNESCO sites and main museums in the neighbourhood, controlling for different characteristics of the municipalities. In order to perform our analysis, we exploit a rich dataset collecting tourism data, socio-economic data and information on museum routes at the municipal level in the year 2018.

Our results indicate that the cultural offering at the destination is a significant predictor of tourism flows. However, also being located near to UNESCO sites and to very popular museums help increasing tourism arrivals, overnights and visitors. Therefore, besides cultural heritage available at the destination, also the presence of a cultural network and the endowment of UNESCO sites and highly visited museums in the area generates positive returns in terms of visitor and tourism flows increasing the tourism attractiveness of Italian municipalities. Moreover, we find that the positive effect resulting from World Heritage sites and museum routes is higher in magnitude for cultural visitors than considering overnight stays and arrivals.

From a policy perspective, insights from our analysis indicate that policy makers and destination managers should reinforce collaboration and networking between neighbouring destinations in order to exploit positive returns resulting from the presence of highly popular museums and UNESCO sites in the area. Indeed, since the positive effect of World Heritage sites and museum routes on tourism and visitor flows tend to spread across neighbouring connected destinations (Bernini and Galli, 2023), tourism plans aimed at reinforcing local tourism development should promote tourists' flows across areas through the use of communication, promotion and marketing strategies as well as better maintained roads and improved public transport facilities. Besides reinforcing the tourism attractiveness of destinations located near to UNESCO sites, policies aimed at promoting collaboration and networking among neighbouring destinations may also help reducing over-tourism issues in World Heritage Sites. Therefore, governments should not only focus on their World Heritage sites, but also promote other destinations and strengthen local traditions exploiting the attractive role of UNESCO sites in an area to better distribute tourist flows.

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