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# Cultural and non-cultural tourism: Evidence from Italian experience

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#### ABSTRACT

Cultural tourism is recognized as one of the main resources used to counteract seasonality in tourist destinations, being by its very nature non-seasonal. Moreover, according to the generally accepted stereotype, cultural tourists tend to be ageing and therefore more likely to travel also during the off-peak season than younger tourists. Our data show that international cultural tourism has increased in Italy during the last 15 years, but this increase has not contributed to reducing seasonality. We have conducted a statistical analysis of the data in an attempt to explore the possible reasons behind such an unexpected finding. By comparing foreign cultural and non-cultural tourists through several socio-economic-demographic variables, our results highlight the fact that a "new (and younger) cultural tourism" is emerging in Italy. Consequently, promoting cultural tourism is just one component for effectively counteracting seasonality. Nevertheless, promotion should also focus on the dual concept of "cultural tourism/ageing tourists".

## 1. Introduction

In an era of increasing volumes of tourists, one of the main challenges is to ensure a stable and sustainable flow of tourists all year round, and here cultural tourism has been playing a key role in the last few years (Girard and Nijkamp, 2009). Although there is still no real consensus on the definition of cultural tourism and cultural tourists (see among others Hughes, 1996; Richards, 1996; Ashworth & Tunbridge, 2000; Cuccia & Rizzo, 2011), it is widely recognized that cultural tourism is a resource to counteract seasonality (among the others Wanhill, 1980; Coshall, Charlesworth, & Page, 2015).

On average cultural tourists tend to have a higher daily budget to spend at the destination and to spend it on local quality goods rather than on mass-produced products. In turn, local quality goods and cultural events have a higher value added which creates benefits mainly for the local economy (Figini & Vici, 2012; Jamen-Verbeke, 1997).

A common accepted stereotype depicts cultural tourists as ageing, with higher educational and higher socioeconomic status than noncultural tourists (Falk & Katz-Gerro, 2016). However, although this stereotype is deeply rooted in the literature, it has not always been empirically confirmed.

In this paper, we try to fill this gap analyzing the characteristics of cultural and non-cultural tourists with the focus on Italy which – according to the World Tourism Organization data – is the third most

popular European country in terms of international tourist arrivals. The data on foreign tourists reaching Italy are collected by the Bank of Italy through interviews on the borders. Since tourists are required to select from a list the main reason for their trip (cultural, sun and sand, mountains, etc.), cultural tourists are simply self-identified as such *tout court*, overriding any question of the definition of cultural tourism. Our analysis, by comparing data on foreign cultural and non-cultural tourists through several socio-economic-demographic variables, investigates whether or not the increasing number of foreign cultural tourists visiting Italy has actually contributed to a change in the seasonal pattern of international tourism demand.

The paper is organized as follows. First, a review of the literature on cultural tourism is provided, focusing on seasonality and cultural tourist profiling. In the subsequent sections, the database is described and statistical analysis of the data is performed. Finally, we discuss the results of the empirical analysis, propose some policy implications and highlight some open issues.

## 2. Seasonality and cultural tourism

Alongside the upward trend, the uneven intra-year distribution of tourist flows represents one of the main features of tourist demand. Seasonality in tourism is usually considered a problem because of the inefficient use of available facilities throughout the year, the variability

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of prices for products and services, the creation of temporary employment in the job market, and several social and environmental effects (see e.g. Allock, 1994; Ball, 1989; Chen & Pearce, 2012; Coshall et al., 2015; Hartmann, 1986; Lopez et al., 2006; Vergori, 2016; Wanhill, 1980).

On the evidence of the relevant literature on the causes of tourism seasonality (e.g. Bar-On, 1999; Baum & Hagen, 1999; Butler, 2001; Rossellò Nadal et al., 2004), it is widely recognized that seasonality is strictly related to the attributes of the tourist destination (such as climatic conditions, events, physical attractions), but it also depends on factors regarding the tourists themselves and their area of origin (such as inertia, institutionalized holidays, changing tastes). Furthermore, there are different seasonal patterns linked to different types of tourism. 'Sun and sand' tourism, for example, is obviously concentrated mainly during the summer season, while of course ski tourism tends to be concentrated during the winter. Cultural tourism, on the other hand, is non-seasonal in nature (Butler & Mao, 1997), and is recognized as one of the main resources to counteract seasonality in tourist destinations (see among others Jamen-Verbeke, 1997; Butler, 2001; Cuccia & Rizzo, 2011; Figini & Vici, 2012; Liu, 2014; Cisneros-Martinez & Fernandez-Morales, 2015). This is mainly due to the fact that "culture" is not constrained by the climate and can be provided all year round.

The overview on 'the seasons and tourism' in Bar-On (1999) showed cultural tourism occurring mainly during September and October. If this is also the case today, cultural tourism should contribute to counteracting seasonality by extending the high season (i.e. July and August) into the shoulder season. However, in the following Sections we will show that foreign cultural tourists in Italy tend to travel more in Autumn, Winter and Spring than in the Summer season. In which case, of course, the role of cultural tourism could prove even more effective than simply extending the peak season into the shoulder season.

#### 2.1. The profile of cultural tourists: the age factor

The research carried out to investigate the main characteristics of cultural tourists has provided several taxonomies, identifying various categories of cultural tourists (see e.g. Barbieri & Mahoney, 2010; Jamen-Verbeke, 1997; McKercher, 2002). In this branch of research, the main lesson learned is that participation in cultural activities alone may not be sufficient to document the intent to have a cultural holiday.

Once the intention has been examined, the difference between cultural and non-cultural tourists should be considered. There is a commonly accepted stereotype of the cultural tourist which has been described with a certain degree of unanimity by some scholars (e.g. Ashworth, 2004; Ashworth & Tunbridge, 1990; Boniface & Fowler, 1993; Eusébio, Carneiro, & Kastenholz, 2013; Figini & Vici, 2012; McKercher, 2002; Nicolau & Más, 2005; Pearce, 2005; Richards, 2001) and is embedded as axiomatic in the literature (Ashworth, 2007), although it has not been empirically verified. According to the stereotype, cultural tourists are usually depicted as ageing, with higher educational and socioeconomic status compared to non-cultural tourists (Falk & Katz-Gerro, 2016).

Given that the age of the tourists plays an important role in their choice of different forms of tourism (Lynch, Duinker, Sheehan, & Chute, 2011), the implications regarding the age range of cultural tourists are interesting. The older tourists are, indeed, less bound to travel during a specific season because they are less dependent on institutional holidays. The core of institutionalized seasonality (Bar-On, 1975) is the mechanical perspective of time that has been prevailing since the Industrial Revolution, and which sees leisure travel constrained by work and other tasks (Sylvester, 1999). Older tourists tend to be free from this kind of constraint and are, in principle, free to travel all year round. In other words, they could be a target group within policy strategies to counteract seasonality, especially if we consider that institutional and socio-cultural factors seem to play a greater role in determining tourism seasonality than climatic and environmental factors (Ferrante, Lo Magno, & De CAntis, 2018).

Thus, it should be self-evident that if the stereotype of cultural tourist was confirmed, the dual concept "cultural tourism/ageing tourists" should have an effective role in reducing seasonality. The non-seasonal nature of cultural tourism could be strengthened by the fact that older tourists are less bound to travel during a specific season.

However, although the cultural tourist stereotype is deeply rooted in the literature, it has not always been empirically confirmed. Some empirical studies (such as ETC & WTO, 2005; Del Corpo, Gasparino, Bellini, & Malizia, 2008) have highlighted the emergence of a 'new cultural tourism', which does not reflect the traditional stereotype of cultural tourist. The analysis by ETC & WTO (2005) – based on four data sources – confirms that cultural tourists visiting European destinations tend to be highly educated with relatively high incomes, but the image of cultural tourists as ageing people is not confirmed. It emerges that all age groups travel for reasons of cultural tourism with a peak age group between 20 and 30 years old. Del Corpo et al. (2008) analyze the economic impact of tourism activities in three European case studies. The study confirms that ageing groups no longer account for the bulk of cultural tourists, all ages being evenly represented.

More empirical analysis is needed to support the theoretical hypotheses in tourism studies (e.g. Cisneros-Martinez & Fernandez-Morales, 2015; Cuccia & Rizzo, 2011; Duro & Turrioòn-Prats, 2019). Our paper contributes to this need both by comparing the characteristics of foreign cultural and non-cultural tourists who visit Italy, and by evaluating their impact on the seasonality of tourism demand.

#### 3. Database description

This paper is based on data collected by the Bank of Italy. Since 1997 a sample survey of international tourism has been conducted by the Italian monetary institute. It is based on interviews carried out both with Italian residents traveling abroad and with foreigners traveling to Italy. The survey is conducted by submitting questionnaires at more than sixty international borders (roads, ports, airports and railways). The interviews are conducted at the end of the journey and about 130,000 travelers are interviewed every year.

In the following sections we analyze the data on foreign tourists visiting Italy. With the available data it is possible to identify travelers according to their travel purposes, e.g. tourism, study, visiting relatives and friends, etc. In addition, those who travel for tourism can be further grouped according to the main reason for their journey (i.e. cultural vacation, mountains, lake, seaside, food and wine, farm holiday, sport and other).

For each tourist, personal information is also recorded. In particular, age, gender, the season during which the tourist visited Italy, the transport mode used to reach Italy (i.e. by air, rail, road or maritime transport), the average cost of the holiday and the use of holiday packages were the variables selected to identify the foreign tourists who visited Italy in 2002 and 2016. Although data are available for the period since 1997, our analysis is restricted to the period from 2002 to 2016 because information on the reason for the vacation had not been available before.

For the twofold purpose of understanding the impact of cultural tourism on seasonality and highlighting the peculiarities of cultural tourists who choose Italy as a holiday destination, we performed a multiple logistic regression model and compared 2002 and 2016 data. These two years were selected since preliminary analysis (not shown here) revealed, as expected, that tourists' characteristics evolve very slowly, and no significant differences have been detected over consecutive years.

The model allows us to carry out comparative analysis between cultural and non-cultural tourists, highlighting the variables that affect the probability of having a cultural holiday rather than a non-cultural one. Both the model and the preliminary statistical analysis were implemented through R-software.

#### 4. Statistical analysis

Statistical analysis of the samples collected by the Bank of Italy was performed. In the following tables, sample means and variances are reported for continuous variables, and frequencies for qualitative ones. Proportions in different samples were compared applying the Z score proportion test. For continuous variables, means were compared with a T Test when the normality assumption held; otherwise, with the Wilcoxon test it was possible to compare medians.

According to the samples collected by the Bank of Italy, both the number of foreign travelers and of tourists showed a drop in 2016 compared with 2002 (Table 1).

However, the number of tourists as a share of the total number of travelers arriving in Italy in 2016 was about 55%. Furthermore, the number of cultural tourists as a percentage of the total number of tourists had increased significantly from 52% in 2002 to 65% by 2016.

It emerges from the seasonal distribution shown in Table 2 that foreign tourists tend to travel mainly during the summer season. The winter season is less preferred, although the share of tourists traveling during winter increased from 2002 to 2016.

On distinguishing between cultural and non-cultural tourists, some differences emerge. First, cultural tourists are more evenly distributed throughout the year than non-cultural ones; furthermore, in 2016 cultural tourists showed a slightly more even intra-year distribution than in 2002. Although summer is the most preferred season, also for cultural holidays, the percentage of cultural tourists in summer is significantly lower than that of non-cultural tourists. In particular, the percentage of cultural tourists is higher in all seasons except for the summer. Over time, the presence of cultural tourists has increased in all seasons except for autumn, while the share of non-cultural tourists has increased only in the summer season.

A more detailed picture of the seasonal distribution of non-cultural tourists is shown in Table 3. As expected, tourists going to the sea were more concentrated during the summer in both 2002 and 2016. Furthermore, while the share of 'sun and sand' tourism had risen in the summer seasons, the percentage of all the other kinds of non-cultural tourism decreased in the summer season of 2016. The share of 'nature and food' tourism definitely increased during both winter and autumn. However, it is worth noting that the sea, mountains and lakes, account for the largest share of non-cultural tourism, while the other categories are relatively marginal.

Table 4 shows the distribution of some travelers' characteristics with respect to travel motivations. In particular, the age and the gender of the tourists, the number of nights spent in Italy, the spending on their holidays, the transport mode used to reach Italy and the propensity to organize the trip through travel agencies were considered for both years.

With respect to the age of the tourists, in 2016 the share of tourists belonging to the last two groups shown in Table 4 had increased compared to 2002, implying a rise in the average age of foreign tourists visiting Italy. In 2002, the proportion of cultural tourists in the first two age groups shown in Table 4 (i.e. the youngest) was significantly higher than the proportion of non-cultural tourists in the same age groups. The share of tourists between the ages of 35 and 44 was significantly lower for cultural tourists than for non-cultural ones, while the proportions of tourists over the age of 45 were very similar between the two categories of tourists. On the other hand, in 2016 the share of tourists over 65 was

**Table 1** Number of travelers in 2002 and 2016.

Years	2002	2016
Travelers	151,486	126,923
Tourists	74,518 (49%)	69,511 (55%)
Cultural tourists	38,727 (52%)	45,410 (65%)
Non-cultural tourists	35,791 (48%)	24,101 (35%)

Source: own elaboration based on Bank of Italy data

significantly higher for non-cultural tourists than for cultural tourists. In addition, although the number of the youngest tourists had decreased by 2016, the proportion of young cultural tourists remained higher than the share of non-cultural tourists of the same age. To summarize, during the period considered non-cultural tourists advanced in age as compared with tourists traveling for cultural reasons. This is in contrast with the common stereotype of cultural tourists as ageing people.

The average number of nights spent in Italy by foreign tourists decreased over time. Furthermore, while in 2002 non-cultural tourists spent significantly more nights in Italy than cultural ones, in 2016 no significant differences can be detected between the two categories of tourists.

With reference to gender, in 2002 about 60% of male tourists traveled for non-cultural reasons, while 55% were cultural tourists. This trend reversed in 2016, when the proportion of men having cultural holidays was significantly higher than the percentage of men having non-cultural holidays.

The average expenditure on holidays on the log scale proved higher for cultural tourism than for non-cultural tourism, both in 2002 and 2016.

With reference to the transport mode used by foreign tourists to reach Italy, air transport seems to be favored by both cultural and non-cultural tourists. However, in 2002 the percentage of cultural tourists traveling by plane (68%) was significantly higher than the share of the non-cultural tourists (45.8%) who use the same transport mode. In addition, non-cultural tourists tended to travel by car more than cultural tourists. 2016 saw a significant increase in tourists traveling by air. Although about 80% of cultural tourists travel by plane, the share of non-cultural tourists making use of air transport (67.9%) increased significantly in 2016. This is probably due to the emergence and subsequent burgeoning of low-cost carriers (LCCs). Finally, while a significant decrease in travel by car and train can be detected in 2016 compared to 2002, it is worth noting that the role played by rail for holiday travel became decidedly marginal in 2016.

The propensity to organize trips through travel agencies selling holiday packages seems to have been higher for cultural tourists than for non-cultural ones both in 2002 and 2016. However, over time this propensity rose for both typologies of tourists.

### 5. Multiple logistic regression model

In order to evaluate the differences between cultural and non-cultural tourists, all the variables that resulted statistically significant in the previous analysis were included in a multiple logistic regression model. Using the model, we infer which variables may influence a tourist's decision to choose between a cultural and a non-cultural holiday. In other words, the model allows us to outline the characteristics of a typical cultural tourist vis-à-vis a non-cultural one.

With this aim, we formally estimate the probability of a tourist choosing a cultural holiday instead of a non-cultural one, marginalizing with respect to significant variables.

The response variable (Y) is set at 1 for cultural tourists and 0 for others. For qualitative explanatory variables, the usual corner point parameterization was used. The following explanatory variables (X) were included: season (corner: summer), age (corner: 45–65), gender (corner: male), the use of a holiday package (corner: yes), the transport mode used to reach Italy (corner: plane) and the average expenditure. The last item was calculated by dividing the total expenditure by the number of nights spent at the Italian destinations and transformed on the log scale.

Let Y be the binary response variable and be  $X_1$ ,  $X_2$ , ...,  $X_p$  the set of predictors. The logistic model (Agresti, 2002) is defined as:

$$logit(P(Y=1|X)) = \alpha + \beta_1 X_1 + \dots + \beta_p X_p$$
 (1)

where:

**Table 2** Percentage of tourists according to seasons.

Years	Winter		Autumn	Autumn		Spring		Summer	
	2002	2016	2002	2016	2002	2016	2002	2016	
Tourists	10.2	11.6	22.2	19.8	23.2	23.9	44.3	44.6	
Cultural	12.2	13.9	24.8	21.4	24.7	25.8	38.3	38.9	
Non-cultural	8.1	7.4	19.5	16.9	21.5	20.5	50.9	55.3	

Source: own elaboration based on Bank of Italy data

**Table 3**Percentage of non-cultural tourists in each season.

Years	Winter	Winter		Autumn		Spring		Summer	
	2002	2016	2002	2016	2002	2016	2002	2016	
Sea	1.9	2.2	15.8	15.3	16.8	15.9	65.3	66.5	
Mountain/Lake	9.4	12.8	17.3	16.5	23.5	25.4	49.7	46.1	
Nature/Food	6.3	26.2	20.7	26.2	26.2	25.4	46.7	38.5	
Other	12.4	18.9	22.9	16.7	23.2	29.7	41.5	34.6	

Source: own elaboration based on Bank of Italy data

**Table 4** Descriptive analysis.

		2002		2016		
		Cultural	Non- cultural	Cultural	Non- cultural	
Age	15-	7182	5515	4546	1816	
	24	(18.5%)	(15.4%)	(10%)	(7.5%)	
	25-	10,851	9442	11,841	5569	
	34	(28%)	(26.4%)	(26.1%)	(23.1%)	
	35-	7518	8264	9435	5727	
	44	(19.4%)	(23.1%)	(20.8%)	(23.8%)	
	45-	11,237	10,537	16,929	8215	
	64	(29%)	(29.4%)	(37.3%)	(34.1%)	
	>65	1939 (5%)	2033	2659	2774	
			(5.7%)	(5.8%)	(11.5%)	
Nights		10.7 (s.d.	12.3 (s.d.	9.7 (s.d.	9.7 (s.d.	
_		10.9)	17.7)	13.7)	14.4)	
Gender	Male	21,388	21,432	26,744	13,294	
		(55.2%)	(59.9%)	(58.9%)	(55.2%)	
Expenditure		7133 (s.d.	6786 (s.d.	7244 (s.d.	6872 (s.d.	
(log)		1038)	1321)	1185)	1315)	
Transport	Car	5835	14,029	5314	6262	
mode		(15.1%)	(39.2%)	(11.7%)	(26%)	
	Train	5984	4735	2006	705 (2.9%)	
		(15.4%)	(13.2%)	(4.4%)		
	Plane	26,362	16,409	36,312	16,373	
		(68.1%)	(45.8%)	(80%)	(67.9%)	
	Ship	546 (1.4%)	618 (1.7%)	1778	761 (3.1%)	
	•			(3.9%)		
Package	Yes	11,402	6924	16,699	6111	
holiday		(29.4%)	(19.3%)	(36.8%)	(25.3%)	

Notes: Number and percentage (in brackets) for qualitative variables. Mean and standard deviation (in brackets) for quantitative variables.

Source: own elaboration based on Bank of Italy data

$$logit(P(Y=1|X)) = log\left(\frac{P(Y=1|X)}{P(Y=0|X)}\right)$$
 (2)

The ratio of probabilities  $\frac{P(Y=1|X)}{P(Y=0|X)}$  is called odds and its logarithmic transformation is the log odds.

Using inverse transformation, it is evident that the logistic model can be equivalently written as:

$$\frac{P(Y=1|X)}{P(Y=0|X)} = \exp(\alpha + \beta_1 X_1 + \dots + \beta_P X_P)$$
(3)

and that

$$P(Y=1|X) = \frac{\exp(\alpha + \beta_1 X_1 + \dots + \beta_p X_p)}{1 + \exp(\alpha + \beta_1 X_1 + \dots + \beta_p X_n)}$$
(4)

where exp(z) is the exponential function.

These different ways of writing the model allow us to interpret the effect of the predictors on the odds (equation (3)) or on the probability of the response being equal to 1 (equation (4)). Since the relationship between the response and the covariates is not linear as in the standard regression models, interpretation of the model parameters relies on the transformation of the logit function. The sign of the coefficients determines whether P(Y=1|X) is increasing or decreasing as X increases. Moreover, equation (3) shows that the odds are an exponential function of X. This provides a basic interpretation of the magnitude of the model parameters: the odds increase multiplicatively by  $\exp(\beta_k)$  for every 1-unit increase of  $X_k$ , controlling for the other Xs. On the other hand, if we want to look at the effect of the predictor  $X_k$  on the probability of observing Y=1, controlling for the other Xs, we have to back transform the logit function according to equation (4).

The model was estimated with the maximum likelihood approach: the Newton Raphson method was applied up to convergence in order to obtain maximum likelihood estimates and their significance was evaluated according to the standard assumptions. Table 5 shows the estimates of the parameters of the model in equation (1); p-values of a Z test are shown in brackets.

All variables – with the exception of gender in 2002 – significantly impact on the probability of choosing a cultural holiday rather than a non-cultural one. According to the parameter signs, in summer the

**Table 5**Multiple logistic regression model.

	2002	2016
Intercept	-1.506 (p < 0.001)	-1.231 (p < 0.001)
Season: autumn	0.474 (p < 0.001)	0.652 (p < 0.001)
Season: spring	0.425 (p < 0.001)	0.670 (p < 0.001)
Season: winter	0.634 (p < 0.001)	1.089 (p < 0.001)
Age: 15–24	0.356 (p < 0.001)	0.558 (p < 0.001)
Age: 25–34	0.126 (p < 0.001)	0.260 (p < 0.001)
Age: 35–44	-0.069 (p = 0.0021)	-0.067 (p = 0.032)
Age: > 65	-0.148 (p < 0.001)	-0.662 (p < 0.002)
Gender: male	0.004 (p = 0.807)	0.193 (p < 0.001)
Average expenditure (log)	0.361 (p < 0.001)	0.304 (p < 0.001)
Transport mode: car	-1.068 (p < 0.001)	-1.023(p < 0.001)
Transport mode: train	$-0.450 \ (p < 0.001)$	$-0.406 \ (p < 0.001)$
Transport mode: ship	-0.006 (p < 0.792)	0.341 (p = 0.08)
Package holiday: yes	$0.185 \ (p < 0.001)$	$0.375 \ (p < 0.001)$

probability of having a cultural holiday rather than a non-cultural one is lower than the probability of having a cultural holiday in the other seasons. In fact, on the basis of equation (4) the probability that a generic tourist would prefer the autumn over the summer for a cultural holiday was about 0.62 in 2002, with estimated odds equal to 1.606 (that is, exp(0.474), as in equation (3)). This actually means that there is a 62% increase in the probability of having a cultural holiday in autumn rather than in summer. Similarly, in spring and winter the estimated odds are respectively 1.53 and 1.88. In other words, a generic tourist in winter is about twice (1.88) as likely to choose a cultural holiday rather than a non-cultural one than he/she would in summer. The probability of a tourist choosing a cultural holiday in autumn, spring or winter rather than summer increased in 2016. In particular, the probability of having a cultural holiday during autumn or spring is about twice (with odds respectively at 1.92 and 1.95) that of a summer cultural holiday, while the probability is threefold (with odds at 2.97) during the winter.

In both 2002 and 2016 the age of the tourists significantly influenced their choice. In particular, young tourists in the age ranges of 15-24 and of 25-34 were more likely to have a cultural holiday than tourists between the ages of 45 and 64, the odds being respectively 1.42 and 1.13 in 2002, while they are respectively 1.74 and 1.31 in 2016. Thus, over time, younger tourists show an increasing preference for cultural holidays rather than non-cultural ones. On the other hand, as emerges from the negative signs, tourists between the ages of 35 and 44 as well as those over 65 are less likely to have cultural holidays than tourists between the ages of 45 and 64. It is worth noting that the probability of a tourist over 65 choosing a cultural holiday was much lower in 2016 than in 2002, highlighting the fact that, although the average age of tourists is increasing, cultural tourists are becoming younger. This result does not leap to the eye from the data description reported in Table 4, but it emerges very clearly from the statistical model that jointly reveals the effect of the variables accounting for their intrinsic relationships. Indeed, this result is interesting in the sense that the common stereotype of the ageing of cultural tourist is not confirmed.

With regard to gender, no significant differences can be detected in 2002 between cultural and non-cultural tourists, while in 2016 gender significantly affected the probability of cultural holidays. In particular, men were more likely than women to have cultural holidays with odds of 1.22 times those of women.

In 2002, cultural holidays appear to have been more expensive than non-cultural ones: for a one-unit increase in the expenditure (on log scale), an increment of about 43% in the odds of having a cultural holiday was to be expected. Moreover, in 2016 cultural holidays were more expensive than non-cultural ones, but for a one-unit increase in the expenditure (on log scale), an increase of about 35.5% in the odds of having a cultural holiday was to be expected.

Another interesting aspect that allows us to make a clear distinction between cultural and non-cultural holiday is the transport mode used to reach Italy. Air travel was the most preferred transport mode for cultural holidays both in 2002 and 2016. The probability of having a cultural holiday by road and rail was significantly lower than that of traveling by plane. The odds were quite similar in both years. No significant differences can be detected in the case of traveling by sea.

According to our data, cultural tourists tend to organize their holidays making use of holiday packages more than non-cultural tourists. Indeed, in 2002 the odds of having a cultural holiday for tourists using packages stood at 1.20 compared with those not using holiday packages. In 2016 this tendency was confirmed by odds of 1.45, significantly higher than the odds in 2002.

### 6. Conclusions and policy indications

One of the most common characteristics of tourism demand is that it tends to be seasonal. Although cultural tourism is considered a key resource to counteract seasonality, more empirical research for fuller analysis of its potentialities is necessary.

Despite the fact that the number of foreign travelers in Italy decreased in the period considered, the importance of the role played by cultural tourists increased both in absolute value and with respect to non-cultural tourists. According to the literature, this first result allows us to hypothesize a possible change in the seasonal pattern of international tourism demand. The expected effect was investigated by estimating the probability of a tourist choosing a cultural holiday rather than a non-cultural one according to some key characteristics. Some interesting results emerged.

Generally, this study confirms the tendency of cultural tourists to spend more money on their journeys than non-cultural tourists and to travel out of the peak season, but the stereotype of the ageing cultural tourist finds no confirmation.

As for the effect on seasonality, the expected reduction of the phenomenon did not occur in the period analyzed. The statistical analysis performed allowed us to evaluate the possible reasons behind such an unexpected result. According to our data analysis, this is mainly due to change in the age of cultural tourists, with a significant increase in young cultural tourists who are less able (for work/study/family reasons) to travel out of the peak season than the older ones. In other words, although cultural tourism continues to be less seasonal with respect to other forms of tourism, its potentiality in counteracting the seasonality of tourism demand could be improved by attracting older cultural tourists, i.e. attracting the category of people who should be "less seasonal" because less dependent on legislated holidays. In Italy, meanwhile, older foreign tourists tend to prefer the tourism typologies more closely related to the seasons.

In our opinion, promoting cultural tourism is not sufficient to counteract seasonality effectively. To be more effective in changing the seasonal pattern of tourism demand, policymakers should target ageing tourists by offering a cultural holiday that matches their tastes and needs. Furthermore, foreign cultural tourists who visit Italy tend to choose holiday packages instead of organizing their travel for themselves. This preference could be a useful tool for decision makers who want to target ageing tourists through appropriate marketing strategies carried out through travel agencies.

On the other hand, young cultural tourists should be incentivized to travel more during off-peak seasons. In particular, special discounts should be applied for young people visiting Italy during the Christmas and Easter holidays. Both periods fall during the Italian off-peak tourism season and, at the same time, they are periods of legislated holidays throughout the world. The spending power of young tourists tends to be low. Therefore, they can be attracted by lower prices that would reduce their travel expenses, such as transportation, accommodation and museum costs.

Finally, this paper highlights an important aspect of the transport modes used by foreign tourists to reach Italy. An increasing use of air transport emerges over time, and cultural tourists tend to travel by air more than non-cultural tourists. These findings pave the way for further research.

## **Author contributions**

This paper is the result of the joint work of both authors according to their specific skills.

In particular, Sections 1, 2 and 3 are written by Anna Serena Vergori, while Sections 4 and 5 are written by Serena Arima.

The conclusions are the result of the joint work of both authors.

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