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Tourism seasonality in cultural destinations: Empirical evidence from Sicily

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ABSTRACT

Seasonality is one of the main phenomena affecting tourism. It depends on the characteristics of both tourism demand and tourism destinations in terms of location and services supplied. This paper focuses on a particular aspect of tourism supply: the cultural attractiveness of tourism destinations, and aims to evaluate the role of cultural tourism in tourism seasonality. We analyze the seasonality of tourist presence in different destinations in Sicily, selected according to their different degree of cultural attractiveness. The methodology adopted to measure seasonality is based on a regression analysis approach, using the Census-X12-Arima procedure. Results are discussed and some policy implications are derived.

1. Introduction

Seasonality is one of the main aspects affecting tourism. In economic terms, generally speaking, seasonality consists in the systematic, although not necessarily regular, movement of a variable in a selected period of time, usually the year (Hylleberg, 1992). In the case of tourism, seasonality can be defined as "the temporal imbalance in the phenomenon of tourism, which may be expressed in terms of dimensions of such elements as numbers of visitors, expenditure of visitors, traffic on highways and other forms of transportation, employment and admissions to attractions" (Butler, 1994, p. 332). The number of tourists – that is, the arrivals or the presence of tourists – is a measure of the quantitative dimension of the demand, while their expenditures measure the economic value of the demand for the tourism destination. Moreover, the attendance at local attractions – e.g., events, festival and, above all, cultural sites – measures the attractiveness of these private and/or public cultural services that are complementary to the tourism sector.

We can distinguish different causes of seasonality in tourism: natural causes, which are beyond the control of decision-makers (climatic factors such as temperature, sunlight, rainfall), and institutional causes, a combination of religious, social and cultural factors, which are partially under the control of the decision-makers (i.e. the schedule of school holidays; the planning and scheduling of festivals or cultural events in tourism destinations; the planning of the urban public and private services supply) (Bar-On, 1975, 1999). The bandwagon effect or fashion behavior and the persistence of individual preferences or love for tradition can also influence individual preference for the peak season. A favorable climatic factor could be a necessary but not sufficient condition to avoid seasonality in tourism. Some Mediterranean (or even tropical) "sun-and-sea" destinations like Sicily have their peak season in summer where seaside tourism can be practiced, but suffer in the rest of the year, even if their climate is favorable.

Even if the seasonality of the tourism demand changes quite slowly, the patterns of a given tourism destination's seasonality may change over time according to the life cycle of the destination. The seasonality of a new tourism destination can be different from the seasonality of a mature tourism site (see the analysis of the Balearic Islands, in Rossellò-Nadal, Riera Font, & Rossello, 2004). The presence of new competitors must be taken into account by policy-makers that have to choose between competing with the new entrants on price, in the same tourism season, or on quality, looking for new seasons and new segments of demand (see, for instance Koc & Altinay, 2007).

Seasonality has economic effects in terms of private and social costs that usually largely exceed the few benefits. The private costs are paid by each of the agents involved: private producers, final consumers and workers. Private producers (i.e. hotels, restaurants) yield a lower return on the capital invested if their investments are tailored to the peak-season demand, suffering from a high level of under-exploited capacity and fixed costs in the off-seasons. The final consumers of the destination – both tourists and residents – pay higher prices for any kind of product and service they buy in the peak season. The workers of the tourism sector typically accept seasonal jobs, without the usual protection required by labor contracts, and long periods of unemployment. However, under certain circumstances, tourism seasonality can produce some

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private benefits, for example, in rural areas, where tourism and agriculture are complementary, and in any destination where the rate of unemployment is high and the opportunity-cost of labor is low.

The social costs of seasonality concern local public utilities (i.e., water supply, waste management and traffic management) that, because of peak-season tourism congestion, cause dissatisfaction in residents and in tourists alike. Social costs are also tied up with the pressure of tourism on the environment that could be unsustainable for the destination if it overcomes the carrying capacity of the site, and can cause irreversible damage for present and future generations. On the contrary, in the case of superstar art cities (such as Venice and Florence in Italy) that usually do not suffer from seasonality but experience very high tourism pressure throughout the year, seasonality could bring some benefits because in the off-seasons the local communities could take a break, as it were, from tourists (Butler, 2001).

The private and social cost of tourism seasonality can be reduced only by common strategies from the public and private actors involved. To reduce the negative effects of seasonality (see Capò Parrilla, Font, & Nadal, 2006) and in the interest of future generations, policy-makers should determine the optimal degree of seasonality, that depends on the carrying capacity of each destination. In the interest of the present generation, different tools can be used, ranging from direct monetary instruments, such as the introduction of a tourism tax on arrivals or presence, to non-monetary ones, such as the regulation of tourism flows (rationing) in very extreme cases of fragile heritage and natural sites.

To lessen seasonality, policy-makers might also encourage tourism in shoulder-season and in off-season, designing nuanced strategies to capture the differentiation in tourism demand (based on cultural, religious, sports, business tourism) (Baum & Hagen, 1999; Higham & Hinch, 2002). Private suppliers of tourism facilities can share these goals through pricing policies, using differential pricing on a temporal basis; however, since the price elasticity of tourism demand is limited due to institutional constraints, this may not be sufficient to avoid the congestion costs of the peak season.

The empirical literature on the economic determinants of tourism seasonality looks at both the demand and the supply side. Empirical research, using official data on arrivals, identifies tourists' income, price (relative price and exchange rate for foreign tourists) and substitutes prices (Rossellò-Nadal et al., 2004) as determinants of the seasonal variation of the demand. Other determinants, like consumer characteristics and preferences, social and cultural interests, are mentioned; some of these characteristics (e.g., age, provenience) have been studied for instance by Cellini & Cuccia (2007), Spencer & Holecek (2007) and Fernandez-Morales & Mayorga-Toledano (2008). Another paper on the demand side, based on a survey on the travel activities of a sample of French households traveling in Canada, (Jang, 2004) studies the seasonality of different travel activities, such as visiting natural and historical sites or enjoying cultural events, and suggests a strategy that promotes mixed segments of the tourism demand to mitigate seasonality. The empirical research on the seasonal variation of tourism supply focuses on the characteristics of accommodation facilities (Capò Parrilla et al., 2006; Koenig & Bischoff, 2004): the high quality of tourism services and the location in the historical centre lessen the seasonal variation in the occupancy rate. However, there is no evidence on whether the location in urban centers attracts off-season tourists interested in cultural activities or in other activities, such as shopping.

In this study, we investigate whether the cultural attractiveness of tourism destinations is able to mitigate the seasonal patterns of tourism demand, using Sicily as a case study. We select some tourism destinations in Sicily, assuming that, because of their location and their cultural endowment, they are able to attract different kinds of tourism: pure "sea and sun" tourism; both "sea and sun" and cultural tourism; pure cultural tourism. Even if the selected destinations differ in size and accommodation capacity, the comparison of the seasonal patterns of the tourist presence can be carried out, by considering the seasonal factors computed according to the Census-X12 procedure.

2. Cultural tourism and seasonality

The fact that cultural tourism is an increasing segment of tourism demand that can reduce seasonality is commonly accepted even if it is difficult to prove. The main problem is the definition of cultural tourism (Bonet, 2003; Hughes, 1996). Currently, there are different definitions of cultural tourism ranging from the very narrow, which identifies cultural tourism with the visits of museums and archaeological sites, to a much broader definition that is not able to distinguish cultural tourism from any other tourism experience (ICOMOS, 2002).

Statistical data on Europe, reported by Europa Nostra (2006), show that more than 50% of tourism in Europe is driven by cultural services; the notion of cultural tourism adopted here is based on the consumption of cultural services while traveling (regardless of whether culture is the primary motivation for traveling).

The data provided by the Italian Statistics Office (ISTAT) show that, in 2005 in Italy, cultural tourism, defined as the registered number of tourists in art cities, scored in terms of arrivals the highest market share (33.5% of the total), better than sun-and-sea tourism (22.8%). In terms of presence, cultural tourism has the second largest market share (24.3%), behind sun-and-sea tourism (31.6%) (Touring Club Italia, 2007). These data, however, exhibit a major weakness and tend to underestimate the phenomenon of cultural tourism in Italy; in effect, tourism in an art city which is also attractive for its coastline and beaches is considered seaside tourism and not cultural tourism.

To overcome the problem of the definition of cultural tourism, in this study we select some destinations in Sicily that differ for their geographical location and their endowment of cultural heritage assets, assuming that these characteristics determine the kind of tourists they attract. The comparison of the seasonality patterns in the tourist presence in these destinations allows us to conclude whether there are significant differences in seasonality based on the cultural heritage assets of the destinations selected.

2.1. Seasonality measures

In the literature on seasonality in tourism, many measures have been considered (a review is provided, e.g., by Lundtorp, 2001). A first group of possible indicators consists of descriptive statistics. If $X_1, X_2, \ldots, X_i, \ldots, X_{12}$ represent the presence of tourists in each month of one year, and X^{min} and X^{max} denote the lowest and the highest value respectively, while $\overline{X}$ is the average value, simple indicators for seasonality can be given as: the seasonality ratio, i.e., $X^{max}/\overline{X}$, or the seasonality intensity, i.e., $X^{max} - \overline{X}$ (the higher the index, the greater the seasonality); the coefficient of seasonal variation, which is the standard deviation of X, having normalized to 100 the average value of X (the higher the standard deviation, the greater the seasonality); the Gini index (the higher the Gini index, the higher the concentration of distribution and the greater the seasonality). These statistics are relatively easy to compute and to extend to a sample of N years, but they are also affected by shocks that have nothing to do with seasonality, and their robustness is easily questionable (Wanhill, 1980).

An alternative methodological approach considers time-series property and regression analysis, taking into account seasonally