Endogenous amenities, tourists' happiness and competitiveness

ENDOGENOUS AMENITIES, TOURISTS' HAPPINESS AND COMPETITIVENESS

ABSTRACT: A key strategy for supporting destination competitiveness is to enhance endogenous amenities and tourists are the best candidate to evaluate them at the destination. In the analysis, we use a comprehensive dataset on foreign travellers to investigate their happiness at Italian destinations between 2005-2014. Using a theory-dependent approach to model happiness at the destination with respect to endogenous and exogenous amenities, personal characteristics and trip features, we show a great diversity in the mix of amenities affecting tourist happiness. However, some clear spatial patterns emerge. Our findings call for place-based policies targeted to the specific needs of each area.

KEYWORDS: competitiveness, endogenous amenities, happiness, international tourists, territorial heterogeneity.

JEL codes: I31, R11, C21

1. Introduction

The literature suggests that the territorial competitiveness of destinations is strongly related to the amount of people travelling to these places (Crouch & Ritchie, 1999; Enright & Newton, 2004; Colombo et al., 2014) and to the happiness[1] of tourists at the destination

[1] In line with much of the happiness literature (Kalmijn & Veenhoven, 2005; Veenhoven, 2012; Bernini & Tampieri, 2019), we use the terms 'subjective well-being', 'happiness' and 'life satisfaction' interchangeably. As well underlined by Veenhoven (2012, p. 1) subjective well-being 'it is an umbrella term for all that is good. In this meaning, it is often used interchangeably with terms like "well-being" or "quality of life" and denotes both individual and social welfare'.

where they spent their holiday (Boley & Perdue, 2012). Thus, a key strategy for consolidating destination competitiveness is to improve tourists' satisfaction by boosting endogenous amenities. Tourists make choices that increase their utility and happiness (Sirgy, 2010). Excellent amenities at the destination reinforce the loyalty of current customers and increase the prospect of attracting new ones (see, among others, Baker & Crompton, 2000; Kozak, 2001). As recently underlined by Chen & Li (2018), the evaluation of tourists' preferences has deep consequences for destinations ~~in order~~ to enhance their performance and competitiveness, being the pursuit of happiness one of the most important aims of modern society and public policies (Kluger, 2013). Thus, understanding the endogenous amenities most affecting overall tourist happiness helps policy makers to improve destination competitiveness (Kim, 1998; Kozak & Rimmington, 1999).

Following the amenity-based theory proposed by Brueckner et al. (1999), we consider as exogenous amenities both natural amenities (i.e., aesthetically-pleasing topographical features of a city) and historical amenities (i.e., monuments, parks, museums, or any other well-preserved building from past centuries). On the other hand, endogenous amenities are those related to the economic state of the destination as hotels and other accommodations, food and beverage, prices and the cost of living, the quality and variety of products offered in stores, information and tourist services, and safety. The amenities-level conceptualisation is useful for the analysis of destinations because it reflects the variety of products and services that tourists experience during their stay. Indeed, tourists might evaluate each aspect of the holiday separately, and their overall happiness is the aggregation of the satisfaction with the most relevant holiday features (for a review see Uysal et al., 2016).

Tourists, by declaring happiness towards destinations, reveal their preferences about the endogenous amenities that make a destination successful.[2]

The goal of the paper is to investigate tourists' happiness using revealed preferences to identify the main relevant endogenous and policy-affected characteristics influencing the competitiveness of destinations, controlling for some exogenous relevant factors and socio-demographic covariates. Essentially, we present a "demand-based" benchmarking study of Italian destinations, related to different characteristics and amenities of the touristic places.

We take advantage ~~from~~ of the literature on the measurement of subjective well-being (SWB) to assess the happiness generated by each destination.[3] To measure SWB we use the bottom-up spillover theory (Andrews & Withey, 1976; Campbell et al., 1976; Sirgy et al., 2010), which asserts that life happiness is influenced by happiness with life domains, and satisfaction with a particular life domain is subsequently influenced by lower levels of life concerns within that domain. The bottom-up spillover theory postulates that satisfaction within a specific life domain accumulates and vertically spills over to superordinate

[2] Although a natural way to detect the best performing local amenities in terms of well-being could be to collect residents' evaluations from a community, the use of residents' perceptions may generate biased evaluations (see Banzhaf & Walsh, 2008). Choosing residents as judges of the local quality of amenities may lead to a biased judgement not only because they have chosen their own location based on their idiosyncratic preferences, but also because the results depend on of the relationship between the distribution of preferences across several amenities among the residents and the distribution of amenities in the considered territory.

[3] Although quality of life can be measured using objective measures, we opted for the subjective approach because of its appealing features. First, SWB measures allow policy makers to 'assist individuals in their everyday life decisions, such as where and how to live' (Diener & Suh, 1997) based on personal experience. Second, SWB measures are more flexible than objective measures. Third, SWB measures rely on individual satisfaction as measured by validated items and scales, guaranteeing comparability across communities and over time. Lastly, it has been shown that a model based on perceptions could outperform the models based on measures of objective attributes (Chasco & Le Gallo, 2013).

domains (for a review, see Diener et al., 1999). Therefore, a formative measure of well-being, constructed on the bottom-up spillover theory, reflects several dimensions of SWB. From a theoretical point of view, this approach requires to investigate tourist happiness by means of the utility function, largely used in the analysis of SWB (van Praag et al., 2003; van Praag, 2011). This function adapts well to a tourism framework, considering the different domains (i.e. the endogenous and exogenous amenities) of tourists' preferences towards the destination where they spent their holiday.

Our study presents some important novelties with respect to the previous literature. First, the amenity-based theory for the first time is applied to the investigation of tourists' happiness and destination competitiveness. Second, we use a large and comprehensive database, provided by the Bank of Italy, exploiting micro-information on the degree of satisfaction expressed by international tourists who visited Italian destinations over the period 2005–2014, never used before in analogous applications. Third, the analysis is carried out using a very fine geographical grid (i.e., the 547 Italian tourism areas) and includes all the Italian localities visited over the period 2005–2014. Lastly, innovating with respect to the previous literature, we differentiate between the main territorial destinations' typologies (i.e. cities of art, seaside destinations, mountain and other tourism destinations and urban localities). Our approach allows evaluating the role that the naturalistic and anthropomorphic characteristics of the area may have on tourists' happiness, improving the explanatory power of our model.

2. Literature review

A large body of literature has investigated and measured tourists' satisfaction at destinations. The main motivation is that understanding the factors determining tourists' well-being can be used to support destination supply strategies (Kozak & Rimmington, 1999; Alegre & Garau, 2010). Natural surroundings, cultural heritage, accommodation, infrastructure, price, safety and environment are important features in choosing a destination and particularly relevant to the tourism experience (Bernini & Cagnone, 2014). Uysal et al. (2016) provide a review of the research on quality of life and wellbeing in tourism. As for the tourist happiness, they find that tourism experiences and activities affect tourists' overall quality of life, but the impact is heterogeneous, depending on different stages in life and other background characteristics that may influence the degree of importance of travel. Recently, Chen & Li (2018) verified that destination attributes, as measured by destination image and service quality, have sufficient power in predicting tourist happiness and therefore destination attractiveness. However, there is not a consensus on the determinants of tourist happiness at a destination, although empirical studies have shown that tourist happiness varies by destination-specific tourist activity (see, among others, Bimonte & Faralla, 2012).

Place-based characteristics and amenities for tourists largely coincide with the attributes used in evaluating the quality of life of citizens. The literature on the evaluation of quality of life in cities has rapidly increased, and both economic and non-economics factors have been considered as determinants of the residents' happiness. Culture and recreation, lifestyle tolerance, crime rate, parks, climate, local natural amenities, house price, consumption and income are among the main attributes evaluated at the destinations. Individual characteristics (i.e., education, employment condition, age, family composition

and so on) have also been recognized as having a mediating role in the satisfaction of people living in a territory (Rappaport, 2009; Aslam & Corrado, 2012; Faggian et al., 2012; Ballas, 2013). Rogerson (1999) indicates that environment, social life, leisure activities, crime, job satisfaction and price are the main factors affecting individual well-being and local competitiveness, and can be profitably used by policy-makers in developing and sustaining the competitiveness of a place.

Even if there is a large literature relating tourists' evaluation to tourism destination attributes, only few papers evaluate the competitiveness of destination using tourists' reveled preferences. Regarding Italy, Cracolici & Nijkamp (2008) investigate the attractiveness of competing destinations by using tourists' perceptions and evaluation of the quality of tourism facilities and attributes at the destinations. This information is the basis for constructing an aggregate indicator by using various multidimensional statistical techniques of the attractiveness of that area. The analysis shows that the evaluation of the tourists is strongly related to the endogenous amenities of a destination. Therefore, the natural and cultural resources represent only a comparative advantage of destinations: they represent a necessary but not a sufficient condition to be competitive. Recently, Guizzardi & Stacchini (2017) classify the Italian provinces by using an importance-performance analysis based on the satisfaction expressed by international tourists towards the destinations where they spent their holiday. The clustering procedure groups provinces with the most similar importance-performance values and relations together. Their results provide a competitiveness mapping of the Italian tourism destinations evidencing how the destination attributes are differently evaluated inside each cluster. However, since the

analysis is carried out at the provincial level, the results mediate between different tourist destinations (e.g. seaside and cities of art) contained in the same province.

3. International tourism flows and happiness in Italy

Italy is arguably one of the most visited countries in the world. In 2016, Italy was the fifth of the world's top tourism destination for international arrivals and the seventh for receipts from international tourism (World Tourism Organization, 2017). Besides, the tourism sector in Italy is particularly large since it accounts for a share above 10% of the Italian GDP (Cafiso et al., 2016). In the analysis, we suggest using the number of visitors' overnight stays as a measure of competitiveness because it accounts for the length of the stay, and thus it is a proxy of the revenue generated by tourism at the destination. Over the last decades, ~~the~~ Italian destinations have been particularly appreciated by international tourists (see Table A1 in Appendix A). The number of tourism nights spent in Italy over the period 2005-2014 witnessed an overall annual average growth rate equal to 2.62% for the international component and 1.90% for its quota over the national total (see Figure A1 in Appendix A). International tourists also appreciated their staying in Italy as shown by the mean overall happiness score which equals 8.54 (this score ranges from 1 to 10) and exhibits an increase of 2.05% over the period. The Great Recession hit Italian tourism in 2008, but its negative effect was swiftly overcome.

However, this picture is largely heterogeneous across the Italian territory, not only with respect to the administrative areas (i.e., regions) but mainly with respect to the typology of the destination (i.e., city of the art, mountain destinations, seaside localities, etc.). It is important to note that Italy is highly differentiated across the territory, as it comprises important cultural cities (e.g., Rome, Venice and Florence), seaside destinations (e.g.,

Rimini, Cagliari, and Capri) and mountains localities (e.g., Bolzano, Tyrol). Such large heterogeneity must be considered to correctly assess the role of tourist happiness in influencing territorial competitiveness through endogenous amenities.

This territorial variability may be completely assessed by investigating whether tourism destinations differently perform~~s~~ over the national territory. To deeper analyse this aspect, we aggregate survey data on happiness and international tourists' overnights at the tourism area level (*circoscrizioni turistiche*),[4] which are made up of one municipality or a set of neighbouring municipalities classified by the Italian National Statistical Institute (ISTAT) on the basis of proximity and a common tourism destination. We chose to use data at the tourism area level instead of at the municipality level[5] because this allowed us to retrieve more accurate estimates for those destinations with a limited number of foreign visitors. In Figure 1, all 547 Italian tourism areas with their typological classification are shown.

Insert Figure 1

Figure 2 shows two choropleth maps of the same areas, showing the average overall satisfaction of foreign tourists (Panel A) and the overall number of foreign visitors (Panel B) by typology of destination between 2005 and 2014. The darker the area, the higher the satisfaction (or the number) of foreign tourists. The maps confirm the presence of a strong heterogeneity in the average satisfaction among Italian tourism areas. The satisfaction map shows a clear spatial dependency; indeed, we can identify some regions where tourism

[4] The data used in the maps are provided by the International Tourism in Italy Survey made by the Bank of Italy. The survey is presented in section 4.1, while data cleaning is discussed in Appendix A.

[5] In 2011 in Italy there were 8,092 municipalities; however, most of them were very small (5,704 of them had less than 5,000 residents) and lacked in tourists' attractions.

satisfaction is particularly high: central Italy, especially Tuscany, Umbria and Marche; the northeast (Veneto and Friuli-Venezia Giulia); and in the south of Sardinia. From the tourism flows map, a clear relationship emerges between the number of tourists and the size of the tourism area. However, there are a few well-known small destinations (e.g., Alghero, Sorrento and Taormina) scattered throughout the Italian Peninsula that attract many foreign visitors.

Insert Figure 2

4. Methodology

4.1 Data and Descriptive Statistics

The analysis was performed on the data collected by the Bank of Italy through the survey called 'International Tourism in Italy', which covers the whole period from 2005 through 2014 (Banca d'Italia, 2015). Tens of thousands of randomly selected foreign travellers are interviewed each year at frontier posts and are asked questions on personal characteristics, the features of their trip and their satisfaction. The survey data include gender, age, profession, country of origin, the accommodation facilities used, the reason for the holiday, the number of travellers, overnight stays, expenditures and opinions of the place (at the municipality level) where the longest period of the holiday was spent (Alivernini et al. 2014; Capacci et al. 2015).

Our analysis focused on tourists whose main purpose for visiting Italy was 'tourism, holiday and leisure'. To better control for satisfaction measurements at each destination, data were adequately cleaned, and the final sample consisted of over 256,199 international tourists (see Appendix A).

We adopted the typological classification of tourism areas used by the ISTAT, which is based on local characteristics and the natural and anthropological elements of municipalities and can be used in reference to local tourism attractions. This classification makes a distinction between strict tourism municipalities (i.e. seaside towns and thermal, mountain and lake localities) and urban cities (i.e. cities of art, major and minor cities).[6] In the analysis, we suggest analysing five main typologies of destinations: seaside, mountain, 'other tourism' destination (lake, hill and thermal localities), cities of art and other urban destinations.

Table 1 shows some descriptive statistics of foreign tourists with respect to the different typologies of destinations they visited. In general, the propensity to visit Italian destinations increases with age, except for people over 65 years old. Cities of art host large percentages of young and middle-aged people, while the oldest travellers prefer to holiday in the mountain and 'other tourism' destinations. The distribution of tourists over the year well reflects the seasonality of the destinations, with a peak in summer for seaside localities, while artistic towns are visited quite uniformly over the year. Inbound flows are mainly concentrated in central Italy where the tourist plans to stay in cities of art, while the north attracts the highest percentages of travellers to mountain destinations. Being a manager largely increases the probability of having a holiday in Italy, reflecting a budget constraint related to tourism expenditure. German people mainly prefer to visit 'other tourism' destinations, while tourists from the UK and the USA show a preference for holidays in an

[6] We made a few changes to this typological classification. In particular, we modified the classification of 19 tourism areas that were classified as 'other urban destinations' because 80% or more of the foreign travellers said that they visited those destinations for a specific purpose (10 were changed to seaside destinations, 1 to mountain destination and 8 to cities of art).

artistic or cultural location. Almost 36% of all foreign tourists stay in a hotel, and this percentage increases in cities of art. On the other hand, in tourism and minor urban destinations, the majority of international tourists stay in apartments, reflecting the supply of different accommodations at these destinations. Inclusive packages, tours with several destinations and travelling alone are largely associated with holidays in artistic and cultural cities.

Insert Table 1

Following Brueckner et al. (1999), we consider as exogenous amenities the cities and works of art (i.e., historical amenities), the hospitality and friendliness of the people, the landscape and natural environment (i.e., natural amenities); while, the endogenous amenities are those related to the economic state of the destination as: hotels and other accommodations, food and beverage, prices and the cost of living, the quality and variety of products offered in stores, information and tourist services, and safety. The evaluation of these amenities was measured by how satisfied the visitors were with the visit. Respondents were invited to report their level of satisfaction with the destination on a 10-point Likert-type scale ranging from 1 (very dissatisfied) to 10 (very satisfied).

Table 2 shows the distribution of satisfaction with different amenities by destination typology. In general, foreign tourists judged their trip to Italy positively, as their overall average satisfaction was above 8 for each typology of destination. As expected, the exogenous amenities, like environment and art received the highest marks, while some endogenous characteristics, like price, shopping, and information, were ranked the lowest. Note that no destination amenity received an insufficient score, confirming a high

appreciation of Italian destinations by foreign tourists. The most satisfied tourists were those having a holiday in mountain destinations, while the least happy tourists took their trip to a cultural and artistic destination, though the difference is minimal. Italian tourism destinations are mainly appreciated for the quality of their environment, courtesy and food; however, some differences in terms of satisfaction were detected among the typologies of destinations. For instance, mountain and 'other tourism' localities, where endogenous amenities have a major role, received high scores for their accommodations, the quality of tourist information and the sense of safety and security, while in cities of art, the (exogenous) artistic amenities were particularly valued. On the other hand, these cities received the lowest scores for accommodations and food and were particularly criticised for their price levels.

Insert Table 2

4.2 Model Specification

To investigate the relevance of the satisfaction determinants for tourism destinations, we take advantage of a theory-dependent approach ~~the modelling techniques~~ applied in the analysis of SWB. Following van Praag et al. (2003) and van Praag (2011), global satisfaction or SWB may be expressed by the function $SWB = f(DS_1,\ldots, DS_K)$ and the various domain satisfactions $(DS_1,\ldots, DS_K)$.[7] We assume that the satisfaction function is additively separable in its domains, that is:

[7] In the original formulation, each domain was explained by a set of functions $DSj = DSj(xj)$ $(j = 1, 2, \ldots, J)$, where xj stands for the sub-selection of x variables for the domain j. In our analysis, we adopted a simplified specification, having information only on the main domains.

$$SWB = f_1(DS_1) + \ldots + f_K(DS_K) \qquad (1).$$

Then tourists' overall happiness can be expressed as a linear combination of satisfaction with the different *K* attributes of a tourism destination.

This conceptual approach fits well into the analysis of tourist happiness. The SWB function (i) reflects the endogenous amenities-level conceptualisation; (ii) is measurable based on so-called satisfaction questions; (iii) allows comparability among individuals; (iv) elicits individual preferences under the assumption that individuals choose what they think would maximise their happiness (Frey & Stutzer, 2002; Stutzer & Frey, 2010; Benjamin et al., 2012); and (v) is separable.

Following this stream of research, we suggest estimating a SWB function of tourists at the destination thus:

$$SWB_{id} = \alpha_1 I_{id}^1 + \ldots + \alpha_k I_{id}^k \ldots + \alpha_K I_{id}^K + \beta X_{id} + \varepsilon_{id} \qquad (2),$$

where I_{id}^k is the satisfaction of tourist *i* for the amenity *k* of the destination *d* and the error term ε_{id} captures idiosyncratic individual factors that may influence individual satisfaction.

We employ as dependent variable the overall satisfaction of foreign tourists on an ordinal Likert-type scale. Given the categorical and ordinal nature of our dependent variable, the adoption of the ordinary least square (OLS) estimator would produce biased and inefficient estimates (Jones & Westerland, 2006). Therefore, we use an ordered logistic regression to estimate the model in Eq. 2. This model is equivalent to *j*-1 binary regressions (where *j* is the number of levels of the dependent variable) with the crucial assumption that the slope coefficients are identical across each regression (parallel regression assumption). However, the Wald test developed by Brant (1990) shows that the parallel regression assumption is

violated for some of the covariates, so an even more general estimator, the generalised ordered logistic model, is adopted. This model relaxes the assumption of parallel regression and allows the coefficients of the independent variables to change across multiple equations (Williams 2006).[8]

To control for heterogeneity in the satisfaction function, we include a set of variables X related to the trip (motivation, length, mode of transport, accommodation, total amount spent during the trip, number of visited Italian destinations, trip as part of a group vacation, year, semester, geographical area), tourist characteristics (gender, age, travelling in company or not, job title, country of origin) as well as covariates which might affect the tourists' satisfaction but are not directly related to the destination (weather conditions). Conditioning on the above characteristics allows disentangling the difference from the 'average' level using the degree of satisfaction on several amenities of tourism destinations.

Within this framework, a foreign tourist's satisfaction (sat_{id}) towards a destination d is interpreted as an ordinal indicator of a latent SWB variable (SWB_{id}), which is unobservable. Following Millán et al. (2013), we suggest reclassifying each satisfaction variable into three values: (1) dissatisfied, (2) moderately satisfied, and (3) very satisfied. Those who respond with a score of 1 to 6 are labelled 'dissatisfied', responses of 7 and 8 are labelled 'moderately satisfied' and those who respond with a score of 9 or 10 are labelled 'very satisfied'. This follows both from the actual distribution of the satisfaction variables (e.g. satisfaction variables taking the lowest scores are rare) and from the ease of interpretation of the results

[8] Using the user-written STATA command 'gologit2', we fit a partial generalised ordered logistic model, where the parallel lines constraint was relaxed only for those variables where it was not justified.

obtained using the generalised ordered logit model. The relationship between sat_{id} and the latent variable SWB_{id} is given as follows:

$$\begin{aligned} sat_{id} &= 1 \ if \ \ -\infty < SWB_{id} \leq \mu_1 \\ sat_{id} &= 2 \ if \ \ \mu_1 < SWB_{id} \leq \mu_2 \\ sat_{id} &= 3 \ if \ \ \mu_2 < SWB_{id} \leq \infty \end{aligned} \quad (3),$$

where μ_1 and μ_2 are the thresholds of the variable SWB that divide its range into separate intervals associated with the different levels of destination satisfaction. The generalised ordered logit model can be written as follows:

$$prob(sat_{id} > j) = g(X\beta_j) = \frac{exp(a_j + X_{id}\beta_j)}{1 + exp(a_j + X_{i_d}\beta_j)} \quad (4),$$

where the vector X_{id} represents trip and tourist specific characteristics, β_j is the associated vector of coefficients to be estimated and $g(\cdot)$ is specified as the logistic cumulative distribution function. It can be determined that the probabilities that sat_{id} will take on each of the values 1–3 is equal to the following:

$$\begin{aligned} prob(sat_{id} = 1) &= 1 - g(X_{id}\beta_1) \\ prob(sat_{id} = 2) &= g(X_{id}\beta_1) - g(X_{id}\beta_2) \\ prob(sat_{id} = 3) &= g(X_{id}\beta_3) \end{aligned} \quad (5).$$

In the next section we will explore the determinants of destination satisfaction for each destination typology. This approach allows comparing tourism destinations only with their direct competitors.

5. Results

5.1 Happiness function estimates

In Table 3 we show the marginal effects of the explanatory variables on the probability that tourists are 'very satisfied' (i.e., the third category we used to classify satisfaction scores) with their holiday, while Table A2 in Appendix A reports the complete set of estimates. The marginal effects are expressed in relative terms, i.e. with respect to the predicted probabilities for the sample means.[9] Finally, t-statistics associated with marginal effects are reported within brackets in each column. The interesting result is that tourists choose 'safety', an endogenous characteristic affected by the local policy, as the greater determinant of satisfaction in each destination (second only in cities of art). However, the relevance of attributes on tourist utility varies with respect to the typology of the locality where tourists spent their holiday, reflecting the different roles of the exogenous and endogenous amenities of the destinations. For seaside localities, tourists revealed that, other than safety (15.30%), it was the courtesy of the local population (10.31%) and the quality and richness of food (10.26%) that affected their happiness the most. The importance of the landscape and natural environment in the satisfaction function of tourists was lower, increasing the overall satisfaction by 8.48% at seaside locations, while the impact of natural amenities was more relevant to mountain localities. Regarding cities of art, tourists revealed that the artistic and historical amenities were the main determinants of their satisfaction (14.05%), followed by a sense of safety (13.30%) and the hospitality of the local community (10.04%).

[9] We computed the marginal effects using the user-written STATA command 'margeff' which modifies the calculation of partial effects when sets of dummy variables are included in the model.

On the contrary, the happiness of tourists that visited minor urban localities was mainly boosted by (again, after safety) the local cuisine and welcome (12.48% and 11.22%, respectively); it is important to note that in these places, another endogenous amenity such as the quality of accommodation played a relevant role in determining the satisfaction of tourists. This last finding may be due to the characteristics of the accommodation supply, which included a high number of B&Bs and country houses.

Insert Table 3

Looking at the other determinants of happiness reported in Table A2, we find that tourist satisfaction tended to decrease with the age of the traveller, irrespective of the destination. A positive relationship between tourism expenditures and satisfaction was detected; this finding was also confirmed by a lower level of satisfaction for workers and employees, who face higher budget constraints than company managers.

5.2 Successful and critical aspects of ~~the~~ tourism destinations

Model estimates evidence a large variability of the role of endogenous amenities in affecting tourists' happiness across the Italian tourism areas. To better evaluate tourists' happiness and identify the positive and critical amenities at a finer territorial level, we propose calculating two indicators to measure the best and worst aspects of each tourism area. These worst (*WS*) and best (*BS*) scores were obtained by combining the happiness function estimates with the attribute scores, as follows:

$$WS_{TA} = min_k\{\hat{\beta}_k^{Tip}(\bar{I}_k^{TA} - \bar{I}_k^{TTip})\} \quad (6)$$

$$BS_{TA} = max_k\{\hat{\beta}_k^{Tip}(\bar{I}_k^{TA} - \bar{I}_k^{TTip})\} \quad (7),$$

where $\hat{\beta}_k^{Tip}$ is the estimated parameter of the satisfaction function for the *k*-amenity and the typology *Tip* of the destination (i.e., seaside, city of art, mountain, 'other tourism', and other urban destination), $\bar{I}_k^{TA}$ and $\bar{I}_k^{TTip}$ are the mean values of the *k*- amenity at the tourism area *TA* and typology *Tip*, respectively. The *WS* and *BS* scores identify the amenity for each destination that differs the most from the mean of the same amenity in that area, weighted by the relevance of the amenity to the destination.

The best and worst scores are thus used to map all the Italian destinations with respect to their main relevant issues in terms of competitiveness (Figure 3).

Insert Figure 3

Italy is largely differentiated with respect to the revealed evaluations of both the positive and critical endogenous amenities, as expressed by international tourists. The most highly appreciated amenitiesy of the south of Italy are endogenous as price (Sicily), food (Calabria and Apulia) and safety (Sardinia); while the social environment (Tuscany, Umbria and Marche) and natural environment (Tuscany) are the most valued exogenous amenities of central Italy. Information, shopping and safety are the most preferred endogenous amenities of the north of the country. As for the worst amenities, foreign tourists agree that the lack of safety (Campania, Apulia, Basilicata, Sicily) and of information (Sardinia) are the main negative endogenous features of the destinations located in the south of Italy. Foreign tourists who visit central Italy find an inadequate information system and a poor capability to shop. In the north, the large heterogeneity of destinations does not allow specific negative amenities to be identified, even though food and prices were the worst aspects in several areas.

These findings show that several amenities have a national origin and can be improved only by a national approach. For instance, it is clear that high prices depend on the characteristics of the market (i.e., endogenous and modern amenities), which would require proactive national policies to improve competition. Moreover, there are some negative endogenous amenities that can be successfully tackled by specific local policy interventions: enhancing accessibility to tourist information via the creation of local portals and local information dissemination, improving the perception of safety in certain tourism areas by developing and modernising urban décor to fight against degradation and general dirtiness, and so on.

Nevertheless, some important amenities are strongly endogenous and depend on place-based policies. For instance, shopping and accommodation are amenities that can be improved by an adequate local intervention. The results clearly show that local policies have an important role ~~for~~ in improving local attractiveness.

6. Conclusions

Based on the "demand-based" benchmarking analysis of Italian destinations and the estimation of a SWB function, this study identifies specific endogenous amenities influencing foreign tourist happiness when visiting Italian destinations. The hypothesis behind this work is that different levels of satisfaction with specific exogenous and endogenous amenities could affect the attractiveness and competitiveness of Italian destinations. Using responses to a specific survey aimed at foreign tourists and a sophisticated econometric modelling technique applied in the analysis of SWB, the analysis evidences that endogenous amenities have a preeminent role in affecting tourists' happiness

and a large heterogeneity in the tourists' preferences is detected across tourism destinations.~~we were able to identify strengths and weaknesses at local levels in a detailed grid.~~

The study's findings have several significant implications, beginning with the contribution of the research to the theory. The literature shows that locations with a higher level of satisfaction from international tourists are associated with higher tourism flows (Meleddu et al., 2015). ~~Increasing the grade of satisfaction therefore has a clear implication in terms of higher tourism expenditures and therefore higher incomes in the area.~~ The finding that tourist happiness with a destination is positively affected by satisfaction with different endogenous amenities confirms the results of Cracolici & Nijkamp (2008) at a more disaggregated level and with a more solid statistical method. Then, our results support the idea that increasing the grade of satisfaction by boosting satisfaction towards endogenous amenities has a positive effect on tourism expenditures, increasing the competitiveness of the area.

The results ~~show also~~also show a great diversity in the mix of features that affect tourist satisfaction with destinations, which allows identifying strengths and weaknesses at the municipality level. The heterogeneity of the level of satisfaction across tourism areas ~~does not, however,~~ reflects ~~differences in the average satisfaction among destinations, but rather~~ the combined evaluation of the positive and critical exogenous and endogenous amenities of each area, as expressed by international tourists. Each destination has its own mix of amenities that can be positive and negative. ~~However, the role of endogenous amenities for the overall satisfaction of the tourist is fundamental.~~ Having conducted the analysis at a high level of territorial disaggregation has allowed us to highlight that, as expected, there is a strong connection between categories of destination and end~~x~~ogenous amenities

particularly appreciated by tourists. This allows us to provide a much more differentiated territorial information than previous studies (e.g., Guizzardi & Stacchini, 2017) as well as identify prices, food and safety as the most appreciated amenities by international tourists.

~~An accurate analysis of the local differences in tourist evaluations, as in our paper, offers several empirical information for the coherent planning of customised destination strategies aimed at increasing the competitiveness of a destination.~~ Our results suggest the need for an integrated approach to place-based development programs. The reason is that all the features we analysed contribute to the realisation of a higher level of local competitiveness. All factors should be considered, even if their specific contribution to the increase in tourists' satisfaction is different: territorial competitiveness cannot be increased if safety, transportation, accommodation, environment or other factors do not achieve a satisfactory level, thus spoiling the overall improvement of a destination.

~~The need for detailed information on the supply of endogenous and exogenous amenities, and the satisfaction of tourists with respect to the different categories of destination lies at the base of appropriate local policies. It is also an element of improvement in the future of this analysis: a~~A greater detail of the attributes collected compared to today, and information also on tourist consumption and not only on satisfaction would lead to a methodological advancement in modelling and to a better specification of the factors underlying the competitiveness of destinations. In addition, future research should also aim at combining subjective and objective measures of local well-being. Another field of methodological improvement concerns the possibility of considering the spatial bonds that link the various locations directly in the model, thus making explicit the integration existing between the different areas. Finally, an element of interest, left for ~~a~~ future research,

concerns the possibility of analysing and testing the differences between tourists and resident perceptions with respect to endogenous and exogenous amenities.

References

Alegre J, Garau J (2010) Tourism satisfaction and dissatisfaction. *Annals of Tourism Research* 37(1): 52–72.

Alivernini A, Breda E, Iannario E (2014) International tourism in Italy (1997-2012). Occasional papers, Bank of Italy, Nr. 220.

Andrews FM, Withey, SB (1976) Social indicators of well-being: America's perception of quality of life. New York: Plenum Press.

Aslam A, Corrado L (2012) The geography of well-being. *Journal of Economic Geography* 12: 627–649.

Baker DA, Crompton JL (2000) Quality satisfaction and behavioural intentions. *Annals of Tourism Research* 27(3): 785–804.

Ballas D (2013) What makes a 'happy city'? *Cities* 32: 539-550.

Banca d'Italia (2015) International Travel. Available at: https://www.bancaditalia.it/statistiche/tematiche/rapporti-estero/turismo-internazionale/index.html?com.dotmarketing.htmlpage.language=1 , accessed 3 December 2015.

Banzhaf S, Walsh R (2008) Do people vote with their feet? An empirical test of Tiebout's mechanism. *American Economic Review* 98(3): 843-863.

Formattato: Italiano (Italia)

Benjamin D, Heffetz O, Kimball M, Rees-Jones A (2012) What do you think would make you happier? What do you think you would choose? *American Economic Review* 102(5): 2083–2110.

Bernini C, Cagnone S (2014) Analysing tourist satisfaction at a mature and multi-product destination. *Current Issues in Tourism* 17(1): 1–20.

Bernini C, Tampieri A (2019) Happiness in Italian cities, Regional Studies, published online: 23 Apr 2019.

Bimonte S, Faralla (2012). Tourist types and happiness: A comparative study in Maremma, Italy. *Annals of Tourism Research* 39(4): 1929-1950.

Boley B, Perdue R (2012) Destination Management, Competitiveness, and Quality-of-Life: A Review of Literature and Research Agenda. In book: Handbook of Tourism and Quality-of-Life Research.

Brant R (1990) Assessing proportionality in the proportional odds model for ordinal logistic regression. *Biometrics* 46: 1171–1178.

Brueckner KJ, Thisse JF, Zenou Y (1999) Why is central Paris rich and downtown Detroit poor?: An amenity-based theory. *European Economic Review* 43: 91–107.

Cafiso G, Cellini R, Cuccia T (2016) Do economic crises lead tourists to closer destinations? Italy at the time of the Great Recession. *Papers in Regional Science*, first published online: 28 July 2016.

Campbell A, Converse PF, Rodgers WR (1976) The quality of American life. New York: Sage.

Capacci S, Scorcu A, Vici L (2015) Seaside tourism and eco-labels: The economic impact of Blue Flags. *Tourism Management* 47: 88–96.

Chasco C, Le Gallo J (2013) The impact of objective and subjective measures of air quality and noise on house prices: A multilevel approach for downtown Madrid. *Economic Geography* 89:2, 127-148.

Chen Y, Li X (2018) Does a happy destination bring you happiness? Evidence from Swiss inbound tourism. *Tourism Management* 65: 256-266.

Colombo E, Michelangeli A, Stanca L (2014) La Dolce Vita: Hedonic estimates of quality of life in Italian cities. *Regional Studies* 48:8: 1404–1418-

Cracolici MF, Nijkamp P (2008) The attractiveness and competitiveness of tourist destinations: A study of Southern Italian regions. *Tourism Management* 30: 336–344.

Crouch GI, Ritchie, JRB (1999) Tourism, competitiveness, and societal prosperity. *Journal of Business Research* 44(3): 137–152.

Diener E, Suh EM (1997) Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research* 40(1-2): 189–216.

Diener E, Suh EM, Lucas RE, Smith HL (1999) Subjective well-being: Three decades of progress. *Psychological Bulletin* 125(2): 276–302.

Enright MJ, Newton J (2004) Tourism destination competitiveness: A quantitative approach. *Tourism Management* 25(6): 777–788.

Faggian A, Olfert MR, Partridge MD (2012) Inferring regional well-being from individual revealed preferences: The 'voting with your feet' approach. *Cambridge Journal of Regions, Economy and Society* 5: 163-180.

Frey B, Stutzer A (2002) What can economists learn from happiness research? *Journal of Economic Literature* 40: 402–435.

Guizzardi A, Stacchini A (2017) Destinations strategic groups via Multivariate Competition-based IPA. *Tourism Management* 58: 40-50.

Jones B, Westerland C (2006) Order matters (?): Alternatives to conventional practices for ordinal categorical response variables. Midwest Political Science Association Meetings, Chicago.

Kalmijn W, Veenhoven R. (2005) Measuring inequality of happiness in nations: In search for proper statistics. 6:357–396.

Kim H (1998) Perceived attractiveness of Korean destinations. *Annals of Tourism Research* 25(2): 340–361.

Kluger J (2013) The pursuit of happiness. Time, July 8, 2013.

Kozak M, Rimmington M (1999) Measuring tourist destination competitiveness: Conceptual consideration and empirical findings. *Hospitality Management* 18: 273–283.

Kozak M (2001) Repeaters' behaviour at two distinct destinations. *Annals of Tourism Research* 28(3): 784–807.

Meleddu M, Paci R, Pulina M (2015) Repeated behaviour and destination loyalty. *Tourism Management* 50: 159-171.

Millàn JM, Hessels J, Thurik R, Aguado R (2013) Determinants of job satisfaction: A European comparison of self-employed and paid employees. *Small Business Economics* 40: 651–670.

Rappaport J (2009) The increasing importance of quality of life. *Journal of Economic Geography* 9: 779–804.

Rogerson R (1999) Quality of Life and City Competitiveness. *Urban Studies* 36(5-6): 969-985.

Sirgy MJ (2010) Toward a quality-of-life theory of leisure travel satisfaction. *Journal of Travel Research* 49(2): 246–260.

Sirgy MJ, Widgery RN, Lee DJ, Yu GB (2010) Developing a measure of community wellbeing based on perceptions of impact in various life domains. *Social Indicators Research* 96(2): 295–311.

Stutzer A, Frey B (2010) Recent advances in the economics of individual subjective well-being. *Social Research* 77: 679–714.

Uysal M, Sirgy J, Woo E, Kim H (2016) Quality of life (QOL) and well-being research in tourism. *Tourism Management* 53: 244-261.

World Tourism Organization (2017), UNWTO Annual Report 2016, UNWTO, Madrid.

Van Praag BMS (2011) Well-Being inequality and reference groups: An agenda for new research. *Journal of Economic Inequality* 9: 111–127.

Van Praag BMS, Frijters P, Ferrer-i-Carbonell A (2003) The anatomy of subjective well-being. *Journal of Economic Behavior & Organization* 51: 29–49.

Veenhoven R (2012). Happiness: Also known as 'life satisfaction' and 'subjective well-being'. *Handbook of Social Indicators and Quality of Life Research*, 63–77.

Williams R (2006) Generalized ordered logit/partial proportional odds models for ordinal dependent variables. *Stata Journal* 6(1): 58–82.