Place-based amenities, well-being and territorial competitiveness: a new approach using tourists' happiness

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Abstract: The well-being generated by each place is an unobservable characteristic affecting local competitiveness and territorial growth. In evaluating local well-being, the use of residents' perceptions may generate biased evaluations. Alternatively, a revealed-preference analysis of tourists' happiness might be exploited to assess the quality of life at the destination. Then, we develop a hedonic utility function to analyze a huge and original dataset of foreign tourists' satisfaction, visiting Italy over 2005-2014, on a large number of place-based amenities. Results show a great diversity in the mix of features that affect tourist well-being at each destination, indicating strong heterogeneity in place-based amenities, correlated in space. The presence of spatially correlated common factors of competitiveness asks for coordinated action plans on the part of local and regional authorities.

Keywords: subjective well-being, revealed preferences, tourists, place-based amenities, territorial competitiveness.

JEL codes: I31, R11, C21

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1. Introduction

Territories compete in the international market for goods and production factors on the basis of an absolute advantage principle to secure employment stability, benefits from external integration and an enduring growth of local well-being and wealth (Camagni, 2002; Malecki, 2007). Although economic conditions and labor market opportunities are arguably the most relevant determinants of a locational choice (Simon and Nardinelli, 2002; Pike et al., 2006), competitiveness has been related also to the quality of life of people living within these places. Huggins and Thompson (2012) find a symbiotic relationship between place-based competitiveness and well-being across localities. They suggest that places with relatively low competitiveness are more likely to suffer from negative externalities, which are also associated with lower levels of well-being. Besides, in the literature there is evidence of a strong relationship between migration and quality of life. Rappaport (2009) demonstrates that people tend to move to places with high perceived quality of life. Moreover, there is empirical evidence that the best chance for an area to attract new residents and firms is to enhance its quality of life, improving and developing a wide set of consumer, civic and natural amenities (Partridge, 2010; Rodriguez-Pose and Ketterer, 2012). Faggian et al. (2012) also show that people move to locations that provide higher utility.

The well-being generated by each place is an unobservable idiosyncratic characteristic affecting local competitiveness and territorial growth, and its measurement is a difficult task. Faggian et al. (2012) suggest that migration flows may be used as a proxy for the quality of life at the destination. If individuals can move freely across regions, when they migrate, they 'vote with their feet', i.e., each individual chooses to live in the jurisdiction that provides him with the local public goods and corresponding taxes that best suit his preferences. Competition among jurisdictions ensures that the public goods are optimally provided. This is the so called Tiebout hypothesis (Tiebout, 1956). Persistent positive net migration indicates that on net, individuals expect their well-being, based on both economic and non-economic factors, to be greater in the destination region compared with the origin (Faggian et al., 2012).

Based on the 'vote with their feet' approach, a natural way to detect the best performing local amenities in terms of well-being is to collect residents' evaluations from a community. At this regard, several studies have tested to some extent the validity of the Tiebout's mechanism, even if results should be used with precaution being affected by different sources of bias⁴ and a severe self-selection

⁴ First, as underlined by Banzhaf and Walsh (2008) and references therein, these studies tend to use census tracts or counties as the affected "community"; however, the size of census tracts may be too large for detecting both demographic shifts that occur within each tract or effects of facility generally located in the neighbourhood. Second, the tract-level demographic composition may be endogenous to public goods if the census draws tract boundaries to make them more homogenous (i.e., census tracts are locally defined to create relatively homogenous entities). Third, changes to economic conditions can reasonably be expected to be associated with changes in the population, also leading to problems of

bias. 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 territory⁵. A way to overcome this problem is to base the analysis on the movers, people that experienced different locations and can express an informed judgment on them, as tourists are.

This is the method used in the paper. A new approach for measuring local competitiveness is proposed, based on the tourists' satisfaction towards the different characteristics and amenities of the destination. Several advantages in using tourists' judgments support our proposal. First, tourism is considered to be a form of the continuum of mobility, ranging from temporary to permanent mobility (i.e. migration) (Bell and Ward, 2000; Williams and Hall, 2000; Bernini et al. 2016), then preferences for place-based attributes might constrain tourism destination choices. More precisely, in case most people are satisfied with the location-specific attributes, at any given time, unwillingness to renounce to them may impact on their decision to travel and substantially reduce destinations they would take into consideration. As in migration models, the equilibrium/disequilibrium perspective might explain their decision to participate in tourism and their destination choice (Cushing, 2004). Considering an equilibrium perspective, location attributes might play a role in constraining the decision to travel around. On the other hand, considering a disequilibrium perspective, location-specific characteristics might be push factors affecting tourism movements. Then, a direct way to measure placed-based well-being and place-based competitiveness is by means of the tourists' happiness at the destination where they spent their holiday.

Second, as previously underlined, residents' evaluations are probably endogenous. One way to overcome this issue is to interview people who have tried several places but that do not necessarily find themselves in the most consonant one with respect to their idiosyncratic preferences. Therefore, they can judge unbiasedly the quality of amenities of an area, mitigating the problem of selection. This applies especially to destinations with a mix of multivariate amenities (i.e. tourists do not have only one goal to be in that territory), where there is variability in preferences and a lack of a static equilibrium as tourists "try" different locations.

endogeneity and biased estimates. Moreover, tracts may change their boundaries over time, preventing robust dynamic analysis.

⁵ For instance, imagine that 60% of people love living by the sea, and 40% in the mountains. Imagine also that 70% of the territory is made up by seaside accommodations and 30% by mountain accommodations, and that the population is equally distributed over the territory. As a consequence, a fraction of the mountain lovers is forced to live by the sea. It follows that inquiring residents about their appreciation for the place they live in, on average, will lead to a biased ranking favouring mountain areas, even though the share of sea lovers is larger.

As we use tourists' evaluations to investigate the well-being and competitiveness of a place, we should also consider the following issues: i) what attributes of the destination should be evaluated by tourists?; ii) to what extent these items well reflect the attributes considered by residents when evaluate the place where they live?; iii) are these items useful for investigating territorial competitiveness?.

A large body of literature has investigated tourists' satisfaction at destinations. The motivation is that tourists are rational and make choices that increase their utility and happiness. Thus, a key strategy for consolidating destination competitiveness is improving tourist satisfaction and understanding the factors determining their well-being, which can be used to support destination supply strategies (Kozak and Rimmington, 1999; Alegre and 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 (for a review, see Bernini and Cagnone, 2014).

These place-based characteristics and amenities 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 and Corrado, 2012; Faggian et al., 2012; Ballas, 2013; Zheng, 2016).

Finally, evaluation of the aforementioned attributes can be profitably used by policy-makers in developing and sustaining the competitiveness of a place. Environment, social life, leisure activities, crime, job satisfaction and price are the main factors affecting individual well-being and local competitiveness (Rogerson, 1999). As underlined by Ballas (2013), previous studies "... provide insights into the issues that cities and regions could provide to increase the happiness of their inhabitants, ranging from regional and social policies (e.g. labor market policies to tackle unemployment) to transport-related investment, such as high-speed rail (which may reduce commute times which have a detrimental impact on happiness, and also enhancing employment opportunities) and more local community initiatives that may be aimed at enhancing social trust and community networks".

The empirical analysis is based on tourists' satisfaction, as expressed by foreign tourists who visited the Italian municipalities over the period 2005-2014. Tourism flows across Italy differ significantly because of the high heterogeneity among Italian tourism destinations (territorial,

morphological, cultural, etc.). We expect that tourists perceive different levels of satisfaction either for the different aspects of the destination (e.g. food, accommodation and services) or for destination type (e.g. city of arts, seaside localities and mountain destinations).

In particular, our aims are threefold; first, to analyze the relevance of the different determinants (amenities and place-based characteristics) of global satisfaction; second, to detect differences among typologies of localities visited by international tourists; and third to evaluate the role of tourist characteristics in the evaluation process. These are important issues for the governance and management of a destination in deciding how to invest the limited financial resources to improve the well-being of the community (i.e., residents, tourists), and thus the competitiveness of the destination. The ability of satisfaction measurement at the destination level is not only in its potential to allow policy-makers to monitor overall changes but also in examining how satisfaction differs for diverse sub-groups of individuals as well as local areas.

From a methodological point of view, to investigate tourist satisfaction we start from the wellknown theoretical framework of the satisfaction or utility function, largely used in the analysis of the Subjective Well-Being (SWB) (van Praag et al., 2003; van Praag, 2007, 2011). We demonstrate that this function may be adapted to a tourism framework, allowing us to explore tourists' preferences towards the destination where they spent their holiday.

In our analysis, we exploit a wide range of analytical data at the micro level collected by the Bank of Italy through the "International Tourism in Italy" survey, since 1996; we focus on the whole period from 2005 to 2014. These pooled cross-sectional data allow us to disentangle the heterogeneity of the overall satisfaction by different levels of satisfaction on several aspects of tourist destinations, controlling for some personal characteristics and trip features.

Our study presents some novelties with respect to the previous literature. To our knowledge, no previous studies have investigated territorial competitiveness by means of tourists' happiness, based on the Tiebout hypothesis, tackling the self-selection problem. Second, this is the first time that a hedonic utility function is estimated to evaluate tourists' happiness. This approach enables us to identify the relevance of different destination attributes in forming the global satisfaction of the migrant in a territory. Third, we use a large and original data set on foreign travelers, which has not been previously used to analyze tourist satisfaction. The analysis is carried out at the very detailed level of territorial units (i.e., municipalities and tourism areas), considering all the Italian localities visited over the period 2005-2014, and differentiating between the main territorial destination typologies (i.e., tourism and urban localities).

The rest of the paper is organized as follows. Section 2 describes our approach for measuring tourists' revealed preferences. Data and research strategy are discussed in Section 3. We then turn to the empirical application in Section 4, while Section 5 concludes.

2. How to measure tourists' revealed preferences towards destinations?

The relationship between satisfaction and destination competitiveness entails two main concepts: i) the destination is a multi-attributes model; ii) the tourist is a rational economic unit. The attributelevel conceptualization is useful for the analysis of tourism 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 satisfaction is the aggregation of the most relevant holiday features (Kim, 1998; Kozak and Rimmington, 1999). Assuming that tourists behave rationally, i.e. individuals choose what they think would maximize their happiness, we can use satisfaction measures as a proxy for the revealed-preference utility (Benjamin et al., 2012). This is an important factor in the analysis, enabling us to measure the role that different destination attributes play in forming the global satisfaction of the tourists' stay in a specific territory (Glaeser et al., 2014).

To investigate the relevance of the satisfaction determinants we take advantage of the traditional modelling techniques applied in the analysis of Subjective Well-Being (SWB). A large body of literature has assumed that individual well-being or satisfaction is a combination of various domain satisfactions (see, among others, Diener, 1984; Diener et al., 1999; van Praag et al., 2003; van Praag, 2007, 2011).

Following van Praag et al. (2003) and van Praag (2007, 2011), the Satisfaction Function (SF)⁶ may be expressed by:

$$SF=f(DS_1,\ldots,DS_j) \tag{1}$$

where DS_1, \ldots, DS_j are the different domain satisfactions. Each domain may be also explained by a set of functions $DS_j = DS_j(x_j)$ ($j = 1, 2, \ldots, J$), where x_j stands for the sub-selection of x variables for the domain j.

In the analysis, we propose transferring the conceptual framework of the SF from the SWB perspective to the tourist satisfaction perspective.

The utility function framework has several appealing features that may be usefully exploited to investigate the satisfaction at the tourism destination. Indeed, the SF reflects the attribute-level conceptualization, it is measurable, it allows comparability among individuals, it elicits individual preferences and it is separable⁷.

⁶ Following van Praag et al. (2003), we use the expression satisfaction function, considering the terms happiness, subjective well-being, satisfaction and utility interchangeable.

⁷ For a discussion of these aspects in the SWB context, see Bernini et al. (2013)

The attribute-level conceptualization suggests that overall satisfaction at a destination is thus the result of tourists' perception of different attributes of that destination (Oliver, 1993). and these different aspects play different roles in determining overall satisfaction (see, among others, Kim, 1998; Kozak and Rimmington, 1999; Yoon and Uysal, 2005; Alegre and Garau, 2010).

The satisfaction function is measurable, being based on the so-called satisfaction questions. In the tourism context, these questions are posed with respect to either destination domains or general satisfaction for the holiday. The answers to such questions are generally categorized on a numerical scale, assuming that tourists have a conception of a worst and a best state and posit their situation between those points. These answers are recognized to have cardinal and ordinal significance.⁸

Another important aspect is the correspondence between what one can measure and the concept we are interested in (van Praag et al., 2003). Evidence in the literature confirms a strong and positive correlation between emotional expressions and answers to the satisfaction questions (Sandvik et al., 1993; Fernandez-Dols and Ruiz-Belda, 1995). Satisfaction levels are found to be predictive in the sense that individuals will not choose to continue activities which yield low satisfaction levels (Kahneman et al., 1993; Clark and Oswald, 1998; Frijters, 2000). Moreover, some papers empirically confirm the validity of using satisfaction measures to proxy for utility under the assumption that individuals choose what they think would maximize their happiness (Frey and Stutzer, 2002; Stutzer and Frey, 2010; Benjamin et al., 2012), providing reassurance to researchers that satisfaction can be used as a proxy for utility.⁹

Finally, the satisfaction function satisfies the additive separability property, which is frequently used to represent preferences (Swofford and Whitney, 1987; Varian, 2005). If we assume that the satisfaction function is additively separable in its domains, that is

$$SWB=f_1(DS_1) + \ldots + f_j(DS_j)$$
⁽²⁾

then overall tourists' happiness can be expressed as a linear combination of the satisfaction for the different attributes of a tourism destination.¹⁰

⁸ Ordinal satisfaction is a way to define indifference satisfaction curves, where a higher order corresponds to a higher satisfaction level. van Praag (2007) suggests that individual responses are interpersonally comparable at an ordinal level. The rationale is that individuals who provide similar answers to satisfaction questions have a similar levels of satisfaction and they can be positioned on the same indifference curve in an ordinal framework. This important feature supports the use of satisfaction questions in eliciting individual preferences.

⁹ In particular, Benjamin, Heffetz et al. (2012) show that people do not seek to maximize SWB exclusively, at least as it is currently measured, but that satisfaction is a uniquely important argument of the utility function. This finding further supports the strong relationship between satisfaction data and preferences.

¹⁰ The estimated satisfaction function may help to measure individual preferences as well as to construct collective tourist happiness indicators for a destination, or propose specific policy with respect to different domains (Ferrer-i-Carbonell and Frijters, 2004; van Praag, 2007). Knowing the determinants of satisfaction allows the impact of policy changes to be assessed in terms of individualized satisfaction gains and losses and changes in (subjective) gaps.

The construction of a satisfaction function requires identifying a weighting system, or determining the relative weights of the different dimensions. As argued by Decancq and Lugo (2013), weights are central in determining the trade-offs between the dimensions of satisfaction and in choosing the list of candidate dimensions because they reflect the value judgements of what happiness should look like. This makes the problem of selecting the appropriate weighting scheme a problem with clear normative implications.

Among the different approaches proposed in literature¹¹, we suggest using the so-called hedonic weights approach largely applied in the analysis of SWB (Decancq and Lugo, 2013). If Y_i is a measure of overall satisfaction at the destination j of individual i, the importance of each attribute of the destination can be obtained from the estimated coefficients of the following happiness function

$$Y_{ij} = \alpha_1 I_{ij}^1 + \dots + \alpha_k I_{ij}^k + \varepsilon_{ij}$$
⁽³⁾

where I^k is the satisfaction for the attribute k of the destination j and the error term ε_i captures idiosyncratic individual factors that may influence the individual satisfaction.

It might be useful to control for heterogeneity in the satisfaction function by including demographic variables of the individual i visiting the destination j (Aslam and Corrado, 2012). The rationale is that the weights constitute value judgements, and it is widely documented that there is high interpersonal variance in these value judgements. Then, the eq. (3) is enlarged to control for a set of X variables related to both trip and a tourist's characteristics, as follows

$$Y_{ij} = \alpha_1 I_{ij}^1 + \ldots + \alpha_k I_{ij}^k + \beta X_{ji}^k + \varepsilon_{ij}$$
⁽⁴⁾

The use of the hedonic approach needs some precautions. First, the presence of multicollinearity among the dimensions of overall satisfaction may affect the statistical significance of parameter estimates. Second, it is important to consider the ordinal nature of the self-reported satisfaction by using an ordinal multinomial model, instead of a standard linear model (Ferrer-i Carbonell and Frijters, 2004). Third, one has to make the difficult (normative) decision about which variables to treat as dimensions of well-being and which as exogenous control variables. Finally, it is appropriate to allow for heterogeneity by also including an individual's demographic variables.

¹¹ Decancq and Lugo (2013) distinguish between three important classes of approaches to set the weights: data-driven (frequency, statistical and most-favorable), normative (equal, expert opinion, price based), and hybrid (self-stated and hedonic).

3. The research strategy

The analysis was performed on the data from the survey conducted by the Bank of Italy called "International Tourism in Italy" covering the whole period from 2005 to 2014 (Banca d'Italia, 2015). The survey data includes the number of foreign travelers who left Italy (randomly selected and interviewed at frontier posts) and the number of nights they spent in the country, detailed at the municipality level (Alivernini et al., 2014; Capacci et al., 2015).

Our analysis focuses on tourists whose main purpose for visiting Italy was "tourism, holiday, leisure". To better control for satisfaction measurement at each destination, data were adequately cleaned.¹² The final sample constitutes of over 250,000 international tourists. Table 1 shows some descriptive statistics on the profile of foreign tourists with respect to the different typologies of destinations they visited. In particular, we have adopted the regional and typological classification of tourism municipalities used by the Italian Statistics Bureau (ISTAT), which is based on the territorial characteristics and the natural and anthropological elements of municipalities and can be used in reference to local tourist attractions. This classification makes the distinction between strict tourism municipalities (i.e., seaside towns, thermal, mountain and lake localities) and urban cities (i.e., cities of art, major and minor cities). In the analysis, we suggest analyzing four main typologies of destinations which are seaside, other tourism destination (mountain, lake, hill, and thermal), cities of art and other urban destinations.

Insert Table 1

The propensity to visit Italian destinations increases with age, except for people over 65 years old. Cities of art host larger percentages of young and middle age people; while the oldest travelers prefer to holiday in other tourism destination as well as in minor urban localities. 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

¹² For each of the 10 consecutive years of the survey we have an initial sample of over 100,000 observations. Taking the survey conducted in 2014, as an example (the numbers are very similar for each year considered), in the following we report the cleaning process performed before conducting the econometric analysis. Each individual interviewed is reported in a single observation if there was only one destination or in multiple observations equal in number to his total number of destinations. In 2014, we have 110,855 observations but after dropping all those concerning destinations different from the primary focus, we are left with 79,605 observations. The rationale for doing that is that we focus our analysis on the satisfaction of foreign tourists and each interviewee is asked to evaluate his satisfaction only for his main destination. We then keep the 35,944 observations for which two or more of the 10 satisfaction variables were missing (in cases with a single missing value we imputed it using multiple regression techniques). Finally, in order to make sure that the interviewee is really evaluating his principal destination, we only keep the interviewees who spent at least 50% of their time in their principal destination and we are left with 25,841 observations. Reiterating the same process for each year, we get the final pooled cross-sectional sample of 256,199 foreign tourists who visited Italy between 2005 and 2014.

mainly concentrated in Central Italy when the tourist plans to stay in cities of art; while the North attracts the highest percentages of travelers to other tourism 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 artistic and cultural location. Almost 64% of all foreign tourists stay in a hotel and this percentage increases in the cities of art. On the other hand, in tourism and minor urban destinations the majority of international tourists stay in apartments, well reflecting the different accommodation supply at these destinations. Inclusive packages, tours with a number of destinations and travelling alone are largely associated with holidays in artistic and cultural cities.

Although the main aim of this survey is to monitor travel expenditure and length of stay of international tourists visiting Italy, the level of satisfaction with different aspects of the trip and the overall satisfaction are also investigated. Different aspects of the trip include: hospitality and friendliness of the people; cities and works of art; landscape and natural environment; hotels and other accommodation; food and beverage; price and cost of living; quality and variety of products offered in stores; information and tourist services and safety. For destination attributes, the evaluation of the destination is measured by how satisfied the visitors are with the visit. Respondents are invited to report their level of satisfaction with the destination on a 10-point Likert-type scale ranged from [1] Very dissatisfied to [10] Very satisfied.

We suggest reclassifying each satisfaction variable into three values: (1) dissatisfied, (2) moderately satisfied, and (3) very satisfied.¹³ Table 2 shows the satisfaction distribution of different aspects of the destination by destination typology. For each area, we compute the average satisfaction of foreign tourists in the whole sample as well as the percentages of tourists for the three levels of satisfaction.

Insert Table 2

On average, the satisfaction expressed by foreign tourists is very high and equal to 8.43 (scale 1-10). The most satisfied are those having a holiday in other tourism town (8.52); while the more dissatisfied took their trip to a cultural and artistic destination (8.37), though the difference is minimal. Overall, tourists appreciate the cultural and artistic as well as the environmental amenities; while price and cost of living represent the critical features of their stay. Some differences have been

¹³ 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 obtained using the generalized ordered logit model.

detected among the typologies of destinations: tourism destinations are mainly appreciated for the quality of the environment and food; cities of art received lower scores for accommodation and food, while artistic amenities are particularly valued.

In order to analyze the dynamics of satisfaction, from the beginning to the end of the period 2014-2005, we compute the average satisfaction in 2014 and in 2005 and then compute the difference between the two. The satisfaction scores tend to increase over the period, as confirmed by the decrease in the percentage of dissatisfied and moderately satisfied tourists. The increase in the share of the very satisfied tourists for the overall satisfaction is 7.59%, and it reaches 9.76% and 7.86% in the cities of art and minor urban municipalities, respectively. The destination attributes that enjoy the largest gain over the period are environment, price and sense of safety; on the other hand, welcome and courtesy are the aspects registering the lowest increase over the period.

To better investigate the satisfaction of tourists at the territorial level, we map the satisfaction scores and their dynamics for all Italian destinations visited by international travelers. Figure 1 reports a choropleth map of over 500 Italian tourism areas¹⁴ with the average overall satisfaction of foreign tourists between 2005 and 2014. The darker the area, the more satisfied the tourists. Figure 2 reports a choropleth map of the same areas with the differences between the average overall satisfaction of foreign tourists in the latest period of analysis (2011-2014) versus the earliest period of analysis (2005-2008)¹⁵. The areas with the diagonal stripes show a loss in average satisfaction, while those with a uniform color represent an increased average score towards the end of the period.

Insert Figure 1 and Figure 2

The maps confirm the presence of a strong heterogeneity in the average satisfaction among Italian areas. There is not a clear correlation between the level of satisfaction and tourism destinations since we see a high level of satisfaction for each kind of amenity (cultural, artistic or environmental amenities). The maps show a clear spatial dependency: this is a property of the space when some natural or urban features are common to more than one area. However, we can identify some regions where tourism satisfaction is higher: Central Italy, especially in Tuscany and Marche, the North-East (Veneto and Friuli-Venezia Giulia) and in the South of Sardinia. This is the only seaside locality with high level of overall satisfaction.

¹⁴ Italian tourism areas represent the smallest territorial units (one municipality or an aggregation of municipalities) on which ISTAT collects data about the capacity and occupancy of tourist accommodation establishments. Each tourism area has only one tourist destination.

¹⁵ In Figure 2 we compare average values calculated on additional years to adequately represent the differences in satisfaction for each area.

The picture is different if we look to the dynamics, which is the change in satisfaction between earlier and later years. Substantial increases in satisfaction are present in several areas of the North-West but are mainly widespread in some Southern regions, such as Sicily, Sardinia, Campania and Apulia. The analysis suggests the presence of convergence in the level of satisfaction across Italian areas: on average, the lower the satisfaction scores, the higher the increase in the satisfaction.

4. Results

The estimation strategy and results of the happiness functions in eq. (4) are presented in this section. The dependent variable is an ordinal Likert-type scale and therefore the adoption of the OLS estimator would produce biased and inefficient estimates. We started to estimate the model in Eq. 4 using an ordered logistic regression. 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) show that the parallel regression assumption was violated for some of the covariates so an even more general estimator, the generalized ordered logistic model, was used. This model relaxes the assumption of parallel regression and allows the coefficients of the independent variables to change across multiple equations (Williams, 2006).¹⁶

In the analysis, we estimate a happiness function for each of the Italian municipality clusters. We also control for both the characteristics of 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 area¹⁷) and the characteristics of the tourist (gender, age, travelling in company or not, job title, country of origin)¹⁸.

Table 3 reports the marginal effects (not the coefficients) 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.¹⁹ These marginal effects are expressed in relative terms (with respect to

¹⁶ Using the user-written STATA command *gologit2* we fit a partial generalized ordered logistic model, where the parallel lines constraint is relaxed only for those variables where it is not justified.

¹⁷ The adoption of dummies to split Italy in its five official statistical regions (Northwest, Northeast, Center, South, and the Islands) accounts for socio-economic and territorial differences among these large areas.

¹⁸ Conditioning the results for some personal characteristics and trip features is equivalent to evaluate the difference from a "normal" level of satisfaction that depends on these characteristics. Therefore, our model disentangles the difference from the "normal" level using the degree of satisfaction of several aspects of tourist destinations.

¹⁹ Table A1 in Appendix A reports the results of the regression analysis with the full set of variables using the generalized ordered logistic specification for the overall estimates.

the predicted probabilities for the sample means).²⁰ Finally, t-statistics associated with marginal effects are reported within brackets in each column.

For the whole of Italian destinations, tourist happiness is mainly affected by safety, artistic amenities, food and welcome experienced at the destination. In particular, safety has the highest marginal effect, equal to 14.98%; the magnitude of this aspect of the destination well reflects the need of tourists to feel safe during their holiday. The artistic and cultural features in Italy increase the probability of being happy during the holiday of 12.66%. The nation has, overall, an estimated 100,000 monuments (i.e., churches, cathedrals, archaeological sites, historic houses and statues), documenting the many influential civilizations and cultures, which flourished in Italy through centuries of social and political changes²¹. These issues are recognized and valued by tourists, thus representing a relevant determinant of their satisfaction. Strictly related to the Italian cultural identity, there are local foods and cuisine. The relevance of this attribute of destination is high, increasing the tourists' utility by 10.71%. The fourth main determinant of happiness as revealed by tourist preferences is the local social environment and aptitude, as courtesy and welcome of the local people (the marginal effect is 10.29%). Minor marginal effects are attributed to shopping, information and accommodation (8.73%, 6.98% and 6.76%, respectively). Surprisingly, the impact of environment on tourist satisfaction is, on average, lower with respect to the other attributes (the marginal effect is 6.00%). Finally, the role of price on the utility of tourists is negligible (i.e., the marginal effect equals 2.93%), even if this feature has received the lowest scores from foreigners.

The relevance of attributes on tourist utility varies with respect to the characteristics of the locality where tourists spent their holiday, reflecting the territorial differences of the destinations. In seaside localities, tourists reveal that, other than safety (15.29%), the courtesy of the local population (10.32%) and the quality and richness of food (10.20%) affect their happiness the most. The importance of landscape and natural environment in the utility function of tourists is lower, increasing the overall satisfaction by 8.54% at seaside locations, while the impact of natural amenities is more relevant to other tourism destinations (mainly mountain localities). Regarding the cities of art, tourists reveal that the artistic and historical amenities are the main determinant of their satisfaction (14.15%), followed by the sense of safety (13.29%) and hospitality of the local community (10.02%). On the contrary, tourists that have visited minor urban localities show the most appreciation (again after safety) for the local cuisine and welcome (12.61% and 11.19%, respectively); it is important to note that in these places, accommodation plays a higher role in determining the

²⁰ 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.

²¹ Italy has 51 total sites on UNESCO's World Heritage list, making it the Country with the most World Heritage Sites.

satisfaction of tourists. This last finding may be due to the characteristics of the accommodation supply, which comprise a high number of B&B and country houses.

Insert Table 3

In the utility function, we control for several characteristics of the trip as well as of the traveler. Generally, staying in more than one destination on the same holiday reduces satisfaction and the effect is more relevant with visits to artistic destinations. Tourist satisfaction tends to decrease with the age of the traveler, irrespective of the destination. A positive relationship between tourism expenditure and satisfaction is detected; this finding is also confirmed by the lower level of satisfaction for workers and employees. Travelling abroad is a luxury good and budget constraints may influence tourism expenditure by limiting the choice of higher quality facilities and services during the trip.

To better evaluate tourist happiness and identify the positive and critical attributes of the destination, we propose calculating two indicators measuring the best and worst aspects of each tourism area. These worst (*WS*) and best (*BS*) scores are obtained by combining the happiness function estimates with the attribute scores, respectively as follows:

$$WS_{TA} = \min_{k} \left\{ \widehat{\beta}_{k}^{Tp} \left(\overline{I}_{k}^{TA} - \overline{I}_{k}^{TTp} \right) \right\}$$
(5)

$$BS_{TA} = \max_{k} \left\{ \widehat{\beta}_{k}^{Tp} \left(\overline{I}_{k}^{TA} - \overline{I}_{k}^{TTp} \right) \right\}$$

$$\tag{6}$$

where $\hat{\beta}_{k}^{\pi_{p}}$ is the estimated parameter of the satisfaction function for the *k*-attribute and the *Tip* - typology of the destination (i.e., seaside, city of art, other tourism, other urban destination) which comprises the tourism area *TA*; $\bar{I}_{k}^{\pi_{h}}$ and $\bar{I}_{k}^{\pi_{p}}$ are the mean values of the k-attribute at the tourism area *TA* and typology *Tip*, respectively. The *WSs* and *BSs* identify the attribute for each destination that differs the most from the mean of the same attribute in that area, weighted by the relevance of the attribute for the destination. The best and worse scores are thus used to map all the Italian destinations with respect their main relevant issues in term of competitiveness (Fig. 3 and 4).

Insert Figure 3 and Figure 4

The Italian territory is largely differentiated with respect to the revealed evaluations of both the positive and critical attributes of destinations, as expressed by international tourists. The most highly appreciated aspects for the South of Italy are price (Sicily), food (Calabria and Apulia) and safety

(Sardinia); while social environment (Tuscany, Umbria, Marche) and natural environment (Tuscany) are mainly valued in Central Italy. Information, shopping and safety are the most preferred attributes in the North of the country. As for the worse aspects, foreign tourists agree that the lack of safety (Campania, Apulia, Sicily) as well as of information (Sardinia, Sicily) are the main negative features of the destinations located in the South of Italy. Again an adequate information system and the capability to shop are negatively valued by foreign tourists who visit Central Italy. In the North the large heterogeneity of these destinations does not allow specific negative features to be identified, even though safety and prices are the worst aspects in several areas.

5. Policy implications and conclusions

The hypothesis behind this work is that different levels of satisfaction with specific territorial characteristics expressed by tourists could provide useful information to measure and enhance the attractiveness and competitiveness of territories. Using responses to a specific survey aimed at foreign tourists and a sophisticated econometric modelling technique applied in the analysis of SWB, we identify the strengths and weaknesses of Italian destinations at local level in a detailed territorial grid.

For the whole of Italy, the place-based amenities that mainly affect local happiness are safety, artistic amenities, food and social environment. This is an important piece of information: the analysis not only empirically selects the main determinants of territorial competitiveness, but also shows that there could be considerable scope for improvement in the competitiveness of each area through an effective intervention by local and national policy-makers. The question is whether the main determinants of happiness for tourists are also important for determining the well-being generated by each place for residents. Although the quality of life is one of the most relevant factors of a locational choice, when people decide their residence they take also into account economic conditions, labor market opportunities and services. However, the items that are scrutinized by the tourists are also the items that are considered by the residents for assessing the quality of life (Rappaport, 2009; Aslam and Corrado, 2012; Faggian et al, 2012; Zheng, 2016). On the other side, tourists' choices are less affected by the local selection bias, i.e. they are less linked to the place where the survey was conducted.

The analysis provides some interesting results. Security is often an asset that is taken for granted in these surveys, while it is an important aspect of the competitiveness of an area. Unsafe places, from a personal perspective or relating to private property or simply for the effective application of the law are usually less attractive both for families and for businesses. Locations with artistic amenities are highly appreciated: the neighborhoods with artistic amenities are normally the most valuable areas of the cities, not only for tourists, but also for residents. This is reflected in the high cost of housing. The cultural identity (expressed by food and social environment) is a clear attraction factor that identifies locations with its own identity and charm with respect to depersonalized and socially unattractive areas. Surprisingly, the impact of environment on well-being is, on average, lower with respect to the other attributes: probably, the main effects of environment are already captured by determinants like cultural or social environment.

Another important result of the paper is to identify the presence of a high heterogeneity in the mix of features that affect local satisfaction for different destinations. The heterogeneity in the level of satisfaction across areas does not, however, reflect the differences in the average satisfaction among destinations, but the combined evaluation of the positive and critical attributes of each area, as expressed by tourists. Therefore, the analysis underlines that the evaluation of place-based amenities and territorial competitiveness are complex tasks that require a multidimensional approach and the identification of multiple factors making up the well-being of a place.

From a policy approach, the results thus indicate the need for targeted "place-based" policies in all areas facing the high heterogeneity of factors and attributes of local competitiveness. There are common factors of competitiveness spatially correlated, concerning contiguous areas that need to be tackled with coordinated action plans by local and regional authorities. In Italy, in line with the above analysis, improving in safety was one of the essential policy interventions especially in the Southern regions. In previous years, a national action plan has been carried out financed by the European Structural Funds (PON Sicurezza 2007-2013). Recently, a new plan was approved by the European Commission (PON Legalità 2014-2020). The implemented measures for improving safety were primarily aimed at ensuring protection and supervision of cultural heritage, industrial areas, transport (trains and highways) and some neighborhoods and suburbs in large cities.

In conclusion, results provided by the estimation of tourists' utility functions are highly informative for local and national policy-makers. The design of place-based policies requires detailed information on places and local amenities supply heterogeneity. The evaluation of the territorial differences facilitates coherent territorial strategies aimed at enhancing territorial competitiveness. We have presented a pioneering study analyzing satisfaction towards different places for an important set of Italian localities using evaluations by international travelers. These results can provide significant contribution to the strategic management of local well-being, providing useful insights for the development of local attractors and the location of public and private infrastructure.

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Appendix

In the main analysis we fit a partial proportional odds model, where the parallel lines constraint is relaxed only for those variables where it is not justified (see Williams, 2006). Table A1 shows the results of the regression analysis with the full set of variables using the generalized ordered logistic specification for the overall estimates. These parameters have been used to estimate the marginal effects reported in the first 2 columns of Table 3.

Insert Table A1

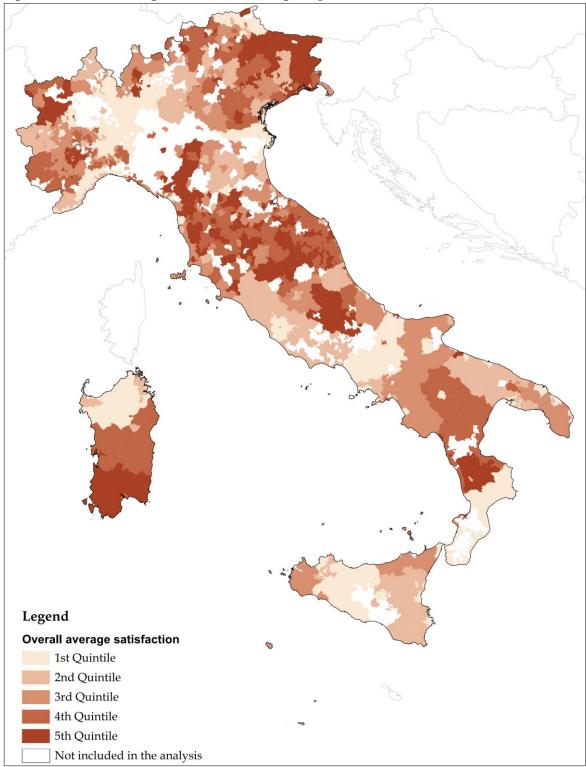


Figure 1. Overall average satisfaction during the period 2005-2014

Note: We have excluded from the map tourism areas for which we have less than 20 observations.

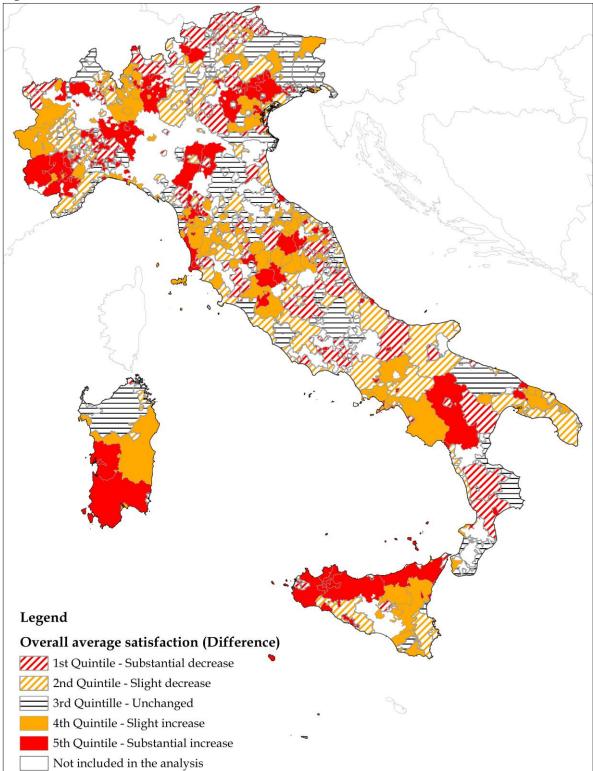


Figure 2. Differences in overall satisfaction between 2014 and 2005

Note: We have excluded from the map tourism areas for which we have less than 20 observations. We report the differences between the average overall satisfactions of foreign tourists in the latest period of analysis (2011-2014) versus the earliest period of analysis (2005-2008).

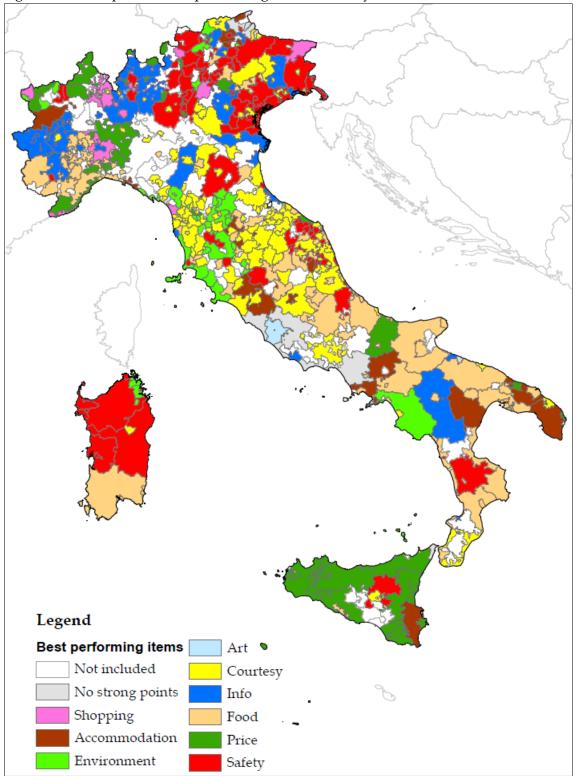


Figure 3. The map of the best performing destinations by attributes

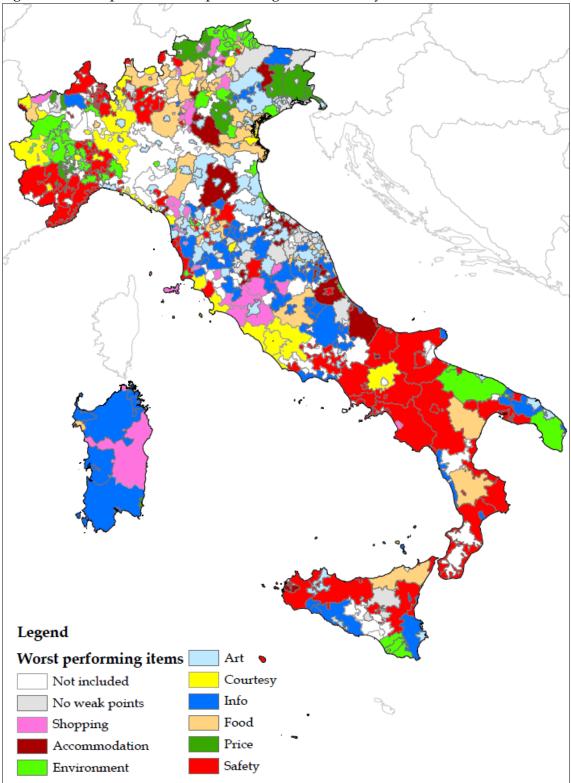


Figure 4. The map of the worse performing destinations by attributes

	Total	Seaside	Cities of Art	Other Tourism destinations	Other Urban destinations
% of females	42.04%	43.15%	43.07%	35.58%	41.25%
Age					
15-24	10.69%	8.72%	12.64%	5.02%	7.64%
25-34	25.54%	22.25%	29.12%	14.60%	20.16%
35-44	26.74%	27.53%	26.62%	26.58%	25.41%
45-64	30.35%	33.72%	26.75%	40.75%	37.58%
65 and over	6.67%	7.79%	4.87%	13.06%	9.20%
Semester					
First	16.16%	5.88%	19.47%	16.80%	11.37%
Second	26.46%	27.95%	26.10%	26.58%	24.66%
Third	38.28%	54.89%	31.85%	42.20%	47.21%
Fourth	19.10%	11.28%	22.58%	14.42%	16.76%
	17.1070	11.20 /0	22.00 /0	17.72 /0	10.7070
Geographical area					
Northwest	15.32%	11.98%	12.48%	31.68%	23.97%
Northeast	30.65%	30.74%	26.25%	56.71%	14.78%
Centre	39.83%	10.17%	56.83%	8.61%	13.51%
South	6.45%	17.05%	2.99%	1.47%	27.21%
Islands	7.75%	30.07%	1.44%	1.54%	20.53%
Job title					
Senior Manager	35.44%	32.67%	36.83%	34.11%	31.13%
Manager	13.53%	14.65%	13.25%	12.87%	14.73%
Clerical worker	16.75%	14.41%	18.12%	13.94%	15.33%
Worker	5.78%	7.62%	5.17%	5.64%	6.93%
Other employee	11.04%	11.46%	10.30%	13.96%	11.30%
Self-employed	6.04%	6.69%	5.58%	6.95%	7.37%
Student	4.86%	4.33%	5.65%	2.20%	3.42%
Retired	4.73%	6.17%	3.37%	8.38%	7.40%
Other	1.83%	2.00%	1.72%	1.95%	2.39%
Country of origin	17.55%	23.90%	10.95%	38.64%	23.32%
Germany	17.55 % 18.29%	25.90 % 16.62%	20.13%	12.21%	25.52 % 16.85%
The United Kingdom	7.41%	2.92%	10.01%	2.20%	4.65%
The USA	8.33%	7.72%	9.32%	4.14%	4.03 % 9.31%
France	8.00%	4.35%	9.52 % 10.65%	1.70%	3.92%
Spain	32.58%				
Other European Countries Rest of the World	32.58% 7.84%	42.20% 2.29%	27.96% 10.98%	39.44% 1.66%	37.02% 4.93%
Rest of the World	1.04 %	2.29 %	10.98 %	1.00 %	4.93%
Accommodation					
Hotel & B&B	63.84%	59.77%	69.11%	52.80%	35.63%
Flat rental	15.28%	20.00%	13.06%	16.14%	24.88%
Hosted by family or friends	7.17%	5.76%	7.56%	4.60%	16.38%
Other	13.71%	14.47%	10.28%	26.46%	23.12%
% of tourists travelling on their own	13.66%	8.99%	15.09%	12.88%	16.31%
% of tourists travelling with an inclusive tourism trip	22.18%	23.07%	24.21%	12.74%	16.16%
Number of destinations					
1	80.02%	80.84%	78.51%	86.74%	78.31%
2	14.24%	13.38%	15.25%	10.24%	15.22%
- 3+	5.74%	5.77%	6.24%	3.03%	6.47%
Average length of stay (nights)	6.38	8.42	5.49	6.70	9.52

Other Tourism Total Seaside Cities of Art Other Urban destinations destinations Diff. btw Diff. btw Diff. btw Diff. btw Diff. btw 2014 and Average 2014 and Average 2014 and Average 2014 and 2014 and Average Average 2005 2005 2005 2005 2005 -3.14 ppts Dissatisfied 9.59% 6.16% -2.91 ppts 12.01% -2.82 ppts 3.78% -1.99 ppts 6.67% -5.19 ppts Moderately 42.67% 35.74% 45.53% 41.19% 0.02 ppts -2.26 ppts -0.41 ppts 10.33 ppts 35.58% 2.11 ppts satisfied Courtesy 57.75% Very satisfied 47.74% 3.12 ppts 58.09% 5.18 ppts 42.46% 3.22 ppts 55.03% -8.33 ppts 3.08 ppts Average (1:10) 8.32 0.15 8.66 0.21 8.13 0.15 8.65 -0.16 8.63 0.20 Dissatisfied 3.83% -1.86 ppts 7.42% -2.57 ppts 2.67% -1.93 ppts 3.04% -2.31 ppts 7.47% -3.31 ppts Moderately -6.19 ppts 0.16 ppts 28.23% -2.94 ppts 35.67% -1.85 ppts 23.74% 36.75% 4.63 ppts 35.95% satisfied Art 67.94% 4.80 ppts 56.91% 73.59% 8.12 ppts 60.21% 56.58% Very satisfied 4.42 ppts -2.31 ppts 3.15 ppts Average (1:10) 8.91 0.13 8.60 0.18 9.06 0.20 8.74 -0.03 8.58 0.14 -3.83 ppts -5.61 ppts Dissatisfied 9.02% -4.93 ppts 4.76% 12.10% 1.54%-1.13 ppts 5.04%-4.16 ppts Moderately 31.88% -3.38 ppts 27.28% -6.25 ppts 35.59% -3.08 ppts 22.27% 4.41 ppts 26.45% -6.03 ppts satisfied Environment Very satisfied 76.19% 68.50% 59.10% 8.31 ppts 67.96% 10.08 ppts 52.31% 8.69 ppts -3.28 ppts 10.18 ppts Average (1:10) 8.59 0.33 8.91 0.32 8.36 0.36 9.17 -0.05 8.91 0.31 Dissatisfied 12.99% 8.19% -6.76 ppts 11.00% -4.10 ppts 15.12% -7.72 ppts 7.00% -4.84 ppts -7.59 ppts Moderately 47.52% -4.04 ppts 0.29 ppts 41.05% 50.34% 44.64% 5.83 ppts 43.43% -2.36 ppts 1.25 ppts Accommodat satisfied ion 6.47 ppts Very satisfied 39.49% 47.94% 6.47 ppts 34.54% 6.48 ppts 48.36% -0.99 ppts 48.38% 11.63 ppts Average (1:10) 8.04 0.32 8.28 0.26 7.88 0.35 8.40 0.06 8.36 0.44 Dissatisfied 8.09% -4.79 ppts 6.95% -3.95 ppts 9.24% -5.40 ppts 4.72% -2.94 ppts 6.12% -3.20 ppts Moderately 38.45% -2.05 ppts 31.41% -2.09 ppts 41.23% -2.43 ppts 37.83% 5.68 ppts 30.21% -3.61 ppts satisfied Food 53.47% 49.52% 57.45% 63.67% Very satisfied 6.85 ppts 61.64% 6.04 ppts 7.83 ppts -2.74 ppts 6.81 ppts 0.26 0.25 0.29 -0.02 0.23 Average (1:10) 8.48 8.70 8.36 8.66 8.76 Dissatisfied 45.50% -18.56 ppts 39.09% -15.00 ppts 49.19% -16.57 ppts 40.15% -28.14 ppts 35.16% -21.28 ppts Moderately 39.54% 41.00% 37.97% 10.10 ppts 43.62% 44.21% 11.37 ppts 9.44 ppts 18.74 ppts 13.42 ppts satisfied Price 14.97%19.91% 20.62% Very satisfied 7.20 ppts 5.56 ppts 12.84% 6.47 ppts 16.24% 9.40 ppts 7.85 ppts 0.80 0.62 0.76 0.98 0.86 Average (1:10) 6.54 6.87 6.34 6.87 7.00

Table 2. Descriptive Statistics by Tourism Destination

N		256	6,199	49	,760	162	2,983	33	,264	10	,192
	Average (1:10)	8.43	0.17	8.54	0.17	8.37	0.19	8.56	-0.01	8.52	0.27
	Very satisfied	48.54%	7.59 ppts	53.44%	7.51 ppts	45.70%	7.86 ppts	53.80%	2.16 ppts	52.79%	9.76 ppts
Overall	Moderately satisfied	47.86%	-5.64 ppts	43.13%	-5.70 ppts	50.30%	-5.70 ppts	44.29%	-1.62 ppts	43.55%	-6.18 ppts
	Dissatisfied	3.61%	-1.95 ppts	3.43%	-1.80 ppts	4.00%	-2.15 ppts	1.91%	-0.54 ppts	3.66%	-3.59 ppts
	Average (1:10)	8.33	0.35	8.53	0.44	8.19	0.29	8.66	0.37	8.37	0.33
occurity	Very satisfied	49.36%	11.31 ppts	55.89%	15.16 ppts	45.69%	9.00 ppts	56.90%	10.97 ppts	51.58%	13.74 ppts
Security	Moderately satisfied	41.48%	-6.79 ppts	36.83%	-9.62 ppts	43.70%	-4.73 ppts	38.36%	-7.41 ppts	38.92%	-10.32 ppts
	Dissatisfied	9.16%	-4.52 ppts	7.28%	-5.54 ppts	10.61%	-4.26 ppts	4.74%	-3.57 ppts	9.50%	-3.42 ppts
	Average (1:10)	7.69	0.34	7.79	0.19	7.57	0.40	8.13	0.25	7.62	0.29
0	Very satisfied	32.82%	7.10 ppts	36.68%	3.48 ppts	30.16%	8.88 ppts	39.89%	2.85 ppts	33.40%	5.21 ppts
Info	Moderately satisfied	47.97%	-0.59 ppts	44.68%	0.23 ppts	48.64%	-1.40 ppts	50.30%	4.69 ppts	45.55%	-0.24 ppts
	Dissatisfied	19.22%	-6.51 ppts	18.63%	-3.71 ppts	21.20%	-7.49 ppts	9.81%	-7.55 ppts	21.06%	-4.96 ppts
	Average (1:10)	7.95	0.20	8.00	0.17	7.90	0.19	8.09	0.17	7.97	0.37
	Very satisfied	34.05%	4.32 ppts	38.02%	3.25 ppts	32.78%	3.84 ppts	33.76%	3.22 ppts	35.86%	8.69 ppts
Shopping	Moderately satisfied	52.75%	0.12 ppts	47.46%	0.76 ppts	53.53%	0.64 ppts	57.54%	1.33 ppts	50.36%	-1.07 ppts
	Dissatisfied	13.21%	-4.44 ppts	14.51%	-4.01 ppts	13.69%	-4.47 ppts	8.71%	-4.56 ppts	13.78%	-7.62 ppts

	Total		Seaside		Cities of Art		Other Tourism destinations		Other Urban destinations	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Courtesy	9.19%	10.29%	10.33%	10.32%	9.23%	10.02%	10.79%	9.17%	11.24%	11.19%
,	(32.91)***	(36.94)***	(17.02)***	(16.71)***	(35.42)***	(39.08)***	(11.72)***	(10.85)***	(9.08)***	(8.95)***
Art	15.20%	12.66%	8.00%	7.97%	16.03%	14.15%	9.55%	9.80%	9.35%	9.49%
	(49.26)***	(38.96)***	(12.91)***	(12.74)***	(48.03)***	(40.06)***	(8.48)***	(8.99)***	(7.98)***	(7.94)***
nvironment	5.07%	6.00%	9.15%	8.54%	3.99%	4.69%	12.52%	11.70%	5.54%	5.80%
	(20.4)***	(23.77)***	(16.76)***	(15.69)***	(17.48)***	(19.77)***	(12.18)***	(11.44)***	(4.24)***	(4.31)***
ccommodation	6.44%	6.96%	8.29%	8.67%	4.89%	5.34%	9.65%	9.57%	10.63%	10.77%
ccommodution	(25.19)***	(27.09)***	(18.05)***	(18.32)***	(22.15)***	(23.95)***	(8.75)***	(9.45)***	(9.17)***	(9.25)***
ood	10.77%	10.71%	10.14%	10.20%	9.33%	9.03%	12.28%	12.12%	12.84%	12.61%
000	(33.92)***	(33.61)***	(18.5)***	(18.53)***	(33.18)***	(35.48)***	(9.93)***	(10.47)***	(10.28)***	(10.02)**
hut a a	· · · ·	· · ·	· · · ·	· /	· · ·	· · ·	()	· · ·	· · · ·	· · ·
rice	2.67%	2.93%	3.50%	3.81%	2.13%	2.28%	3.78%	4.34%	3.70%	3.62%
	(15.26)***	(16.56)***	(9.12)***	(9.77)***	(13.45)***	(14.35)***	(6.1)***	(6.91)***	(4.68)***	(4.59)***
hopping	8.27%	8.73%	5.10%	5.59%	8.33%	8.82%	10.74%	10.87%	5.39%	5.94%
	(26.11)***	(27.48)***	(7.41)***	(8.05)***	(29.15)***	(30.83)***	(9.93)***	(10.37)***	(4.57)***	(4.95)***
nfo	6.17%	6.98%	7.54%	7.82%	5.80%	6.18%	9.22%	9.84%	5.50%	6.42%
	(27.78)***	(31.79)***	(14.19)***	(13.76)***	(27.88)***	(29.99)***	(10.13)***	(10.48)***	(6.83)***	(7.99)***
afety	14.86%	14.98%	14.25%	15.29%	13.28%	13.29%	14.93%	17.29%	13.48%	13.94%
	(51.92)***	(51.69)***	(24.82)***	(20.71)***	(45.36)***	(45.18)***	(17.74)***	(19.2)***	(12.1)***	(12.59)**
emester ^a										
	2	-1.84%		-2.60%		0.07%		-6.10%		5.13%
		(-2.18)**		(-1.05)		(0.09)		(-2.88)***		(1.19)
	3	-1.81%		-1.37%		-1.53%		-2.87%		3.23%
		(-2.18)**		(-0.59)		(-2.12)**		(-1.31)		(0.81)
	4	-1.27%		-2.74%		-1.19%		-2.79%		11.79%
		(-1.4)		(-1.01)		(-1.48)		(-1.13)		(2.53)**
<i>,</i> .										
'ear ^b 20	05	6.60%		6.73%		1.61%		18.56%		9.05%
20	00	(4.83)***		(2.3)**		(1.19)		(4.81)***		(1.66)*
20	06	2.54%		-1.43%		0.71%		7.85%		1.35%
20	00									
20	07	(1.96)**		(-0.54)		(0.49)		(2.14)**		(0.23)
20	07	2.32%		-1.18%		2.90%		3.84%		-1.47%
		(1.6)		(-0.45)		(2.11)**		(0.88)		(-0.24)
20	08	1.65%		5.55%		0.72%		2.26%		2.76%
		(1.45)		(2.11)**		(0.6)		(0.75)		(0.48)
20	09	2.62%		3.75%		1.19%		4.64%		4.31%
		(2.17)**		(1.55)		(0.95)		(1.36)		(0.69)
20	10	1.61%		4.88%		3.04%		-4.11%		3.42%
		(1.34)		(1.85)*		(2.45)**		(-1.48)		(0.64)
20	11	-0.97%		-0.09%		-0.44%		-1.66%		-4.95%

Table 3. Determinants of overall satisfaction for the category: "very satisfied"- Generalized Ordered Logit estimations (marginal effects)

2012 2013	(-0.89) -2.58% (-2.51)** -1.68% (-1.61)	(-0.04) -1.01% (-0.46) -0.07% (-0.03)	(-0.38) -2.47% (-2.29)** 0.96% (0.88)	(-0.58) -0.10% (-0.04) -3.61% (-1.5)	(-0.91) -4.61% (-0.96) -3.03% (-0.64)
# of destinations	-1.28%	1.11%	-1.52%	-0.85%	-0.40%
	(-2.94)***	(1.08)	(-3.42)***	(-0.42)	(-0.21)
Ln Expenditure	2.17%	3.15%	1.54%	0.38%	3.76%
	(5.68)***	(3.42)***	(3.73)***	(0.59)	(3.29)***
# nights spent	0.02%	0.10%	-0.02%	0.16%	-0.16%
	(0.51)	(1.09)	(-0.46)	(1.33)	(-1.29)
Travel with others	1.55%	3.58%	1.80%	-1.06%	-3.83%
	(1.87)*	(1.95)*	(2.33)**	(-0.45)	(-1.13)
Female	2.22%	5.70%	0.79%	2.72%	3.81%
	(3.8)***	(4.74)***	(1.5)	(1.6)	(1.61)
Inclusive tour. trip	-2.59%	-0.47%	-4.07%	6.21%	1.65%
	(-4.09)***	(-0.33)	(-6.44)***	(3.09)***	(0.41)
Accommodation ¢ Flat rental Hosted (family/friends) Other	0.86% (1.02) -1.66% (-1.63) -1.56% (-1.86)*	3.31% (2.17)** -4.34% (-1.66)* -2.14% (-1.27)	0.18% (0.22) 0.84% (0.76) -0.40% (-0.41)	-0.24% (-0.09) -3.21% (-0.88) -2.06% (-1.02)	3.13% (0.98) -2.62% (-0.62) 0.18% (0.06)
Age group ^a 25-34 35-44 45-64 65 and over	-5.29% (-4.83)*** -8.92% (-7.85)*** -9.70% (-8.5)*** -10.69% (-6.77)***	-6.14% (-2.28)** -9.27% (-3.32)*** -11.26% (-4.17)*** -10.46% (-3.02)***	-5.11% (-5.29)*** -8.53% (-8.54)*** -8.90% (-8.43)*** -11.34% (-7.15)***	-6.21% (-1.35) -8.09% (-1.85)* -7.85% (-1.76)* -9.86% (-2.14)**	-1.03% (-0.19) -9.26% (-1.76)* -9.87% (-1.88)* -1.92% (-0.26)
Job title • Manager Clerical worker Blue-collar worker	-0.35% (-0.34) -2.84% (-3.02)*** -3.36%	-0.15% (-0.08) -4.61% (-2.15)** -8.30%	-0.78% (-0.88) -2.82% (-3.15)*** -2.74%	0.72% (0.22) -6.95% (-2.61)*** -0.09%	-0.90% (-0.22) 4.40% (1.04) -2.22% 29

	(-2.77)***	(-3.45)***	(-2.06)**	(-0.03)	(-0.45)
Other employee	1.42%	0.23%	2.30%	1.12%	1.02%
	(1.26)	(0.12)	(2.15)**	(0.39)	(0.21)
Self-employed	0.72%	1.95%	-1.20%	0.72%	0.45%
	(0.58)	(0.65)	(-0.93)	(0.23)	(0.08)
Student	-2.65%	-4.05%	-2.92%	-9.24%	-3.98%
	(-1.69)*	(-1.12)	(-1.97)**	(-1.62)	(-0.49)
Retired	-0.29%	-0.63%	1.88%	0.74%	-4.26%
	(-0.14)	(-0.19)	(0.87)	(0.16)	(-0.64)
Other	1.76%	4.39%	4.84%	-7.93%	14.16%
	(0.8)	(1.2)	(2.45)**	(-1.75)*	(1.17)
Country of origin ^f					
The United Kingdom	12.84%	11.59%	10.97%	19.25%	11.56%
8	(15.61)***	(6.31)***	(11.13)***	(7.08)***	(3.22)***
The USA	12.68%	21.38%	10.75%	7.76%	1.10%
	(12.53)***	(8.18)***	(9.36)***	(1.42)	(0.19)
France	3.61%	1.79%	1.50%	5.56%	9.82 [%]
	(3.91)***	(0.82)	(1.43)	(1.54)	(2.2)**
Spain	5.48%	2.57%	3.24%	9.27%	3.73%
1	(5.85)***	(0.84)	(3.19)***	(2.01)**	(0.54)
Other European	· · · ·		· · · ·		× ,
Countries	3.71%	5.06%	3.53%	0.11%	-0.78%
	(4.89)***	(3.68)***	(3.69)***	(0.07)	(-0.27)
Rest of the World	8.82%	12.65%	6.50%	4.57%	13.46%
·	(8.03)***	(4.27)***	(5.63)***	(0.58)	(2.19)**
Geographical area ^g					
Northeast	0.01%	-3.29%	2.07%	-5.49%	-1.39%
	(0.01)	(-1.84)*	(2.2)**	(-3.2)***	(-0.39)
Centre	11.29%	0.39%	10.45%	10.82%	4.22%
	(14.26)***	(0.18)	(11.9)***	(3.28)***	(1.09)
South	8.03%	3.01%	6.13%	9.61%	3.70%
	(6.25)***	(1.42)	(2.96)***	(1.32)	(1.14)
Islands	5.13%	-1.25%	9.89%	-3.83%	6.58%
	(4.29)***	(-0.64)	(4.27)***	(-0.68)	(1.52)
Ν	256,199	49,760	162,983	33,264	10,192
Pseudo R^2	0.4696 0.4828	0.4791 0.4904	0.446 0.4557	0.5425 0.5549	0.4783 0.4948
I SCUUDIN Z	0.1070 0.1020	0.1//1 0.1/01	0.110 0.1007	0.0120 0.0017	0.1700 0.1710

Note: Significant at *10%, **5%, and ***1%. Reference categories: ^a first semester; ^b year 2014; ^c hotel and B&B; ^d tourists aged 15-24; ^e senior manager; ^f Germany; ^g Northwest Italy.

		To	tal	То	
			S. moderately very satisfied	Dissatisfied of satisfied VS.	or moderately very satisfied
		(1)	(2)	(3)	(4)
Courtesy		0.2992	0.3244	0.3823	0.4323
-		(15.01)***	(15.96)***	(32.22)***	(36.08)***
Art		0.3253	0.2511	0.6476	0.5357
		(16.16)***	(11.66)***	(45.21)***	(37.03)***
Environment		0.1281	0.1562	0.2113	0.2497
A		(7.51)***	(8.97)***	(20.45)***	(23.66)***
Accommodation		0.2681	0.2903	0.2681 (24.98)***	0.2903
Food		(24.98)*** 0.2678	(26.75)*** 0.2738	0.4528	(26.75)*** 0.4504
1000		(11.28)***	(11.46)***	(32.84)***	(32.49)***
Price		0.1106	0.1217	0.1106	0.1217
		(15.22)***	(16.5)***	(15.22)***	(16.5)***
Shopping		0.1899	0.2077	0.3444	0.3651
		(7.44)***	(8.23)***	(25.68)***	(26.98)***
Info		0.2568	0.2912	0.2568	0.2912
		(27.77)***	(31.46)***	(27.77)***	(31.46)***
Safety		0.4932	0.4882	0.6331	0.6395
		(24.48)***	(24.09)***	(47.92)***	(47.94)***
Semester ^a					
	2		-0.076		-0.076
			(-2.17)**		(-2.17)**
	3		-0.0745		-0.0745
			(-2.17)**		(-2.17)**
	4		-0.0521		-0.0521
			(-1.4)		(-1.4)
Year ^b					
	2005		0.2698		0.2698
			(4.9)***		(4.9)***
	2006		0.105		0.105
	2007		(1.97)**		(1.97)** 0.0962
	2007		0.0962 (1.61)		(1.61)
	2008		0.0687		0.0687
	_000		(1.46)		(1.46)
	2009		0.1084		0.1084
			(2.18)**		(2.18)**
	2010		0.0667		0.0667
			(1.35)		(1.35)
	2011		-0.0406		-0.0406
			(-0.89)		(-0.89)
	2012		0.3214		-0.1093
	2012		(2.32)**		(-2.48)**
	2013		0.396 (4.38)***		-0.0707
			(±.50)		(-1.6)
# of destinations			0.0521		0.0521
π or destinations			-0.0531 (-2.93)***		-0.0531 (-2.93)***
			-0.0258		0.0899
In Expanditure					
Ln Expenditure			(-1 2)		
Ln Expenditure			(-1.2)		(5.64)***
Ln Expenditure # nights spent			0.0009		0.0009
			, , , , , , , , , , , , , , , , , , ,		. ,

Table A1. Determinants of overall satisfaction - Generalized Ordered Logit estimations (coefficients)

	(1.87)*	(1.87)*
Female	-0.1252 (-2.02)**	0.0919 (3.79)***
Inclusive tour. trip	0.0588	-0.1073
	(1.11)	(-4.08)***
Accommodation ^c Flat rental	0.0353	0.0353
Hosted (family/friends)	(1.02) -0.0689	(1.02) -0.0689
Other	(-1.62) -0.065	(-1.62) -0.065
Outer	(-1.86)*	(-1.86)*
Age group ^d		
25-34	-0.2221	-0.2221
35-44	(-4.75)*** -0.3779 (-7.64)***	(-4.75)*** -0.3779 (-7.64)***
45-64	-0.4093	-0.4093
65 and over	(-8.31)*** -0.4635	(-8.31)*** -0.4635
	(-6.39)***	(-6.39)***
Job title ^e		
Manager	-0.0144	-0.0144
Clerical worker	(-0.34) -0.1185	(-0.34) -0.1185
Blue-collar worker	(-3)*** -0.1405	(-3)*** -0.1405
Other employee	(-2.73)*** 0.0582	(-2.73)*** 0.0582
Self-employed	(1.26) 0.0297	(1.26) 0.0297
Student	(0.58) -0.1105 (1.67)*	(0.58) -0.1105 (1.67)*
Retired	(-1.67)* -0.012 (-0.14)	(-1.67)* -0.012
Other	(-0.14) 0.7146	(-0.14) 0.0723
	(3.63)***	(0.81)
Country of origin ^f		
The United Kingdom	0.528	0.528
The USA	(15.86)***	(15.86)***
The USA	0.0364 (0.39)	0.5216 (12.81)***
France	0.153	0.153
<i>c</i> :	(3.96)***	(3.96)***
Spain	0.2307 (5.96)***	0.2307 (5.96)***
Other European		()
Countries	-0.2032	0.1573
Rest of the World	(-2.8)*** -0.0172	(4.89)*** 0.3668
	(-0.22)	(8.23)***
Geographical area ^g		
Northeast	0.0005	0.0005
	(0.01)	(0.01)
Centre	0.4637	0.4637
South	(14.35)*** -0.3403	(14.35)*** 0.3329
	(-4.08)***	(6.39)***

	Islands		0.2148 (4.37)***		0.2148 (4.37)***
Constant		-13.95 (-33.64)***	-13.99 (-31.42)***	-27.91 (-117.9)***	-28.91 (-108.1)***

Note: Significant at *10%, **5%, and ***1%. Reference categories: ^a first semester; ^b year 2014; ^c hotel and B&B; ^d tourists aged 15-24; ^e senior manager; ^f Germany; ^g Northwest Italy.