Can sustainability drive tourism development in small rural areas? Evidences from the Adriatic

# Can sustainability drive tourism development in small rural areas? Evidences from the Adriatic

Andrea Guizzardi[a], Annalisa Stacchini[b]* and Michele Costa[c]

[a]*Department of Statistical Sciences "Paolo Fortunati" and Center for Advanced Studies on Tourism, University of Bologna, Italy;*

Via Belle Arti 41, 40126 Bologna (IT) - andrea.guizzardi@unibo.it

[a] *Center for Advanced Studies on Tourism, University of Bologna, Italy;*

Via Angherà 22, 47921 Rimini (IT) - annalisa.stacchini2@unibo.it.it

[b]*Department of Economics and Center for Advanced Studies on Tourism, University of Bologna, Italy;*

Piazza Scaravilli 2, 40126 Bologna (IT) - michele.costa@unibo.it

**Abstract**

This study explores how sustainability can constitute a driver of tourist demand in small areas, at the early stage of tourism development. Feasible methods and scales are proposed to analyse the perceived value of rural tourism and visitor perceived sustainability, where the low tourist demand and the touch-and-go nature of the typical visit imply measurement and modelling problems. The advantages of ordinal SEM in our empirical setting are compared to the standard model. Results indicate that a good state of conservation of the cultural heritage is the most important indicator of perceived sustainability, followed by a well-protected natural environment. We disentangle the relationship between tourism and sustainability, showing that the latter is perceived as a limitation directly, but it turns out to be a driver of destinations' competitiveness thanks to its strong influence on the perceived value, that moderates its contribution to destination image, satisfaction and intention to recommend.

**Keywords**: perceived sustainability; sustainable tourism development; rural tourism; ordinal SEM; small areas; perceived value.

## 1. Introduction

Tourist perceived sustainability is starting to be recognized as a driver of destinations' competitiveness, in light of the first evidences of its influence on visitor perceived value and satisfaction (Iniesta-Bonillo et al, 2016). The growing heed about sustainability and environmental themes is manifesting in new tourist motivations supporting sustainable and green practices, which are becoming valuable competitive assets to favour loyal behaviours and availability to pay a premium price (Lee et al, 2010; Polo Peña et al, 2012). Sustainability-conscious travellers are appealed by the sustainability characters of well conserved areas, that can attract more visitors if effectively promoted (Ashraf et al, 2020). As the market segment of sustainability-aware tourists expands, new chances of development open up for territories off the beaten tourism tracks.

In particular, rural areas endowed with natural and cultural, tangible and intangible resources look promising candidates to grasp the opportunities of green and heritage tourism, for stopping depopulation, boosting socio-economic growth and safeguarding local resources and life quality (Cucari et al, 2019). 'Rural heritage' has been defined as a dynamic collection of ecological, cultural, economic and social forms, contents and attributes, historically developing in a rural place together with the meanings and values attached to them by the rural community (Lekakis and Dragouni, 2020). For instance, the rural heritage of mountain areas can include examples of spontaneous architecture (huts and barns), ancient rural churches, museums about art crafts, local cuisine, ancient traditions and typical lifestyle.

The chances of establishing rural areas as tourist destinations might be increased after the COVID-19 outbreak, as travellers are expected to privilege less overcrowded places, where the risk of infection is minimal. However, a successful tourism development of rural areas could be hindered by conflicting interests of the different stakeholders (Idziak

et al, 2015). In particular, the visitors' perceptions of the quality and sustainability of the local tourism system may contradict those of the host community, generating dissatisfaction in one or both sides (González Herrera et al, 2018).

If travellers do not perceive a carefully protected heritage (e.g. a natural park rich in biodiversity, where activities that can disrupt flora and fauna are prohibited) as an added value, they will not be attracted in the destination (Ashraf et al, 2020), thus residents will not benefit from tourist spending and may perceive heritage preservation as an unproductive burden, in antagonism with the needs of their contemporary life (Lowenthal, 2015). As highlighted by Sánchez-Fernández et al. (2019), for a successful tourism development it is not enough that a destination is sustainable, it is necessary that visitors perceive sustainability and that this perception increases the value received from the tourist experience. Travellers tend to choose destinations based on their perceptions rather than on objective indicators (Amir et al, 2015). Therefore, in order to devise an effective sustainable tourism development strategy, it is crucial to analyze tourist perceived sustainability and how it contributes to the formation of value for the visitor (Sánchez-Fernández et al, 2019).

This study explores how sustainability can constitute a driver of tourist development in nine rural areas of the Adriatic, selected for project funding by the European Regional Development Fund (ERDF), to the aim of leveraging natural and cultural heritage for sustainable territorial development. The relationships of perceived sustainability with visitor perceived value, satisfaction, destination image and intention to recommend are investigated. The links between the two latter constructs and perceived sustainability have never been explored before, to the best of our knowledge, as the literature addressing the perceived value of sustainability and its influences on tourist impressions and behaviour is still in its infancy. Thus, this work brings new empirical

evidence that shall prompt interesting theoretical developments, but also two methodological innovations. First, a measurement scale feasible for small areas with low tourist inflows is proposed. Second, both direct and indirect effects of visitor perceived sustainability are tested through an ordinal SEM, that, to the best of our knowledge, is innovative in the tourism literature about perceived value. By comparing estimates to those yielded by the standard approach for continuous data, important implications for research practice are drawn.

## 2. Literature review and research hypotheses

### 2.1 Rural areas and sustainable tourism

Rural areas are often characterized by poor economic conditions, lack of employment opportunities, languishing social fabric, depopulation, and their natural resources are frequently threatened by the expansion of industrial plants (Cucari et al, 2019). Many rural areas are endowed with natural and cultural assets potentially attractive to tourists, but lack infrastructures, tourist services and facilities, thus they are typically excluded from mass tourism itineraries (Blanco, 1996). This latter aspect, that traditionally was an obstacle to tourism development, is becoming a competitive advantage, since mass tourism is increasingly criticized as unsustainable and new forms of tourism are emerging, along with the sustainability awareness of the general public (Lee et al, 2010; Polo Peña et al, 2012). Rural areas are transforming into niche destinations, chosen by sustainability sensitive travellers seeking for contact with nature and tranquillity (Polo Peña et al, 2012).

According to the traditional definition, sustainability is compounded of four dimensions: environmental, social, economic and institutional (UNDPCSD, 1996). Consistently, sustainable tourism should improve the material and non-material well-being

of the host community, preserve intergenerational and intragenerational equity, maintain biological diversity and ecological systems integrity, and protect cultural assets (Lane, 1994; UNESCO, 2012). Different forms of sustainable tourism have emerged, for instance ecotourism, heritage tourism, community-based tourism, social tourism, smart tourism and relational tourism (Onni, 2012). However, achieving a balance between the components of sustainability is very difficult (Dragouni et al, 2018). The preservation of natural and historical heritage, can be perceived as an obstacle to fully exploit the local resources, in socio-economic terms (Almeida et al, 2017). A major issue is the antagonism between environmental and economic interests, and that between the public sector and private business (Almeida et al., 2018). As an instance of the former, according to destination managers and policy-makers of some sites under investigation, due to the decline of agriculture profitability, some rural areas owe most of the local employment and production to factories, that would like to expand their plants, with the consent of a part of residents, desiring more job opportunities, and the opposition of those locals who want to preserve the environment from industrial pollution. As an example of public-private conflict, some residents in mountain areas would like to expand ski resorts, for increasing winter sports-related business opportunities, but public administration does not authorize the use of public land for this purpose. In addition, the conservation of the cultural heritage from the past is often perceived to contrast with residents' contemporary needs (Lowenthal, 2015). For example, some residents in ancient villages would like to build comfortable roads, or enlarge their houses to open little businesses, but landscape and urbanistic constraints, aimed at the conservation of the historical heritage, prevent such structural interventions.

Ecotourism is frequently pointed out as a viable solution to reconcile the protection of the natural resources with the wellbeing of the local community, but, in practice, it has

sometimes failed to ensure the expected benefits, due to the lack of human, financial and social capital, and to the absence of a fair redistribution of economic profits (Coria and Calfucura, 2012). The valorization of the rural areas' cultural heritage is another recommended tourism development path oriented to sustainability, that has sometimes failed to generate socio-economic benefits, mainly due to conflicting interests between stakeholders (Almeida et al, 2018; Dragouni et al, 2018). The literature has pointed out that community participation in sustainability-focused tourism development is crucial in order to reconcile contrasting values of destination stakeholders, increase resident satisfaction and quality of life, boost social support and enhance social capital (e.g. Koutra and Edwards, 2012; Su and Wall, 2014 Jordan, 2015). Residents usually support tourism and participate in its development motivated mainly by the related economic benefits (Haralambopoulos and Pizam, 1996). Thus, it is necessary that the sustainability of the destination is perceived by visitors as a motive of attraction, to be profitably marketable (Sánchez-Fernández et al, 2019; Ashraf et al, 2020).

**2.2 Perceived sustainability**

Visitor perceived sustainability of tourism destinations has been recently defined as the demand-side cognitive-affective assessment of the sustainability policies in force in the considered area (Sánchez-Fernández et al, 2019). While numerous consumer behavior studies explored the perceived value of sustainability and its influences on purchasing and consumption choices (e.g. Chang, 2011), the literature addressing this topic with reference to tourism destinations is still in its infancy (Bernini et al, 2020). The extant tourism research focuses mainly on host communities, analyzing local stakeholders' perceptions of sustainability in their region (e.g. Haralambopoulos and Pizam, 1996; James et al, 2020).

As residents' perceptions provide essential information to assess the social dimension of sustainability, visitors' perceptions can reveal the marketability level of sustainability, its contribution to destination's competitiveness (Sánchez-Fernández et al, 2019; Ashraf et al, 2020). In fact, it is necessary that travellers perceive a carefully protected heritage as an added value (e.g. that their feeling of contributing to biodiversity protection overcomes the disappointment for not being allowed to fish rare species), for sustainability to be a competitive advantage (Polo Peña et al, 2013; Ashraf et al, 2020). Thus, studying perceptions is fundamental, because tourists tend to choose destinations based on these, rather than on objective indicators (Roehl and Fesenmaier, 1992; Amir et al, 2015).

Although early attempts are being made to formulate a general theoretical framework and a measurement model for visitor perceived sustainability (Sánchez-Fernández et al, 2019), the review of the literature suggests that it is necessary to adopt a scale consistent with the specific research context, because some dimensions of a universal model could not be correctly measurable or relevant in particular cases. In fact, the extant models are different, although all inspired to the traditional dimensions of (objective) sustainability (UNDPCSD, 1996). All the authors agree that this is a multidimensional unobservable construct. Some studies identify tourists' segments based on how they perceive sustainability and characterize the found clusters through socio-demographic variables (e.g. Cottrell et al, 2004; Sánchez-Fernández et al, 2019; Bernini et al, 2020). Others confront residents' perceptions with the visitors' ones (e.g. González Herrera et al, 2018),

Recent studies investigate the relationships between perceived sustainability and fundamental constructs of destination's competitiveness. Satisfaction has been either defined as the positive difference between pre-consumption expectations and ex-post

perceived performance of the consumed good/service (Parasuraman et al, 1985), or identified with the latter (Tse and Wilton, 1988). Bernini et al. (2020) show that, in mass tourism destinations, perceived sustainability is the least important determinant of satisfaction. Iniesta-Bonillo et al. (2016) identify a positive influence of this construct on the satisfaction levels of visitors in two 'greener' destinations. These mixed results, suggest to test the following hypothesis:

H1: Visitor perceived sustainability exerts a positive direct effect on satisfaction.

**2.3 Perceived value and sustainability**

The perceived value can be measured either as a single variable (e.g. Zeithaml and Bitner, 2003; Hasan et al, 2019), or as a compound of multiple dimensions (e.g. De Oliveira Santini et al, 2018; Frías-Jamilena et al, 2018). The validity of the unidimensional measurement has been queried, because it is unlikely that different customers share the same meaning of 'value' (Petrick and Backman, 2002). Moreover, the multidimensional model seems to be preferable for tourism destinations, because of their multifarious, complex and composite nature (Rodrigo and Turnbull, 2019). However, there is no standard measurement model for the perceived value of destinations, so we stick to that proposed by Polo Peña et al. (2012) for rural tourism. Accordingly, perceived value is a second-order reflective construct, manifested through two first-order latent factors: functional and affective benefits (see figure 1).

To the best of our knowledge, only Iniesta-Bonillo et al. (2016) and Polo Peña et al. (2013) have already investigated the contribution of perceived sustainability to the overall perceived value. Thus, to the aim of strengthening this finding, the following hypothesis is formulated:

H2: Visitor perceived sustainability has a positive direct influence on the perceived value.

In the tourism field, the positive influence of perceived value on tourist satisfaction has been robustly confirmed by a plethora of studies (e.g. Bajs, 2015; Prebensen et al, 2016; Oviedo-García et al, 2017). If perceived sustainability influences perceived value (H2) and the latter affects satisfaction, then perceived sustainability exerts an indirect effect on satisfaction. Consistently, we test:

H3: The perceived value mediates the positive relationship between perceived sustainability and satisfaction.

Loyalty has been defined as "a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future" (Oliver, 1997, p. 392). A large body of literature has found a direct positive effect of perceived value on tourist's loyal behavioural intentions (e.g. Cheng and Chiang-Chuan, 2013; De Oliveira Santini et al, 2018). In this study we survey visitors' intention to recommend the destination to others (that is a way of patronizing the site in the future) and consider that, if the influence of perceived sustainability on perceived value (H2) is verified and the latter affects the intention to recommend, then perceived sustainability has an indirect influence on this behavioural intention. Thus, we test:

H4: The perceived value mediates the positive relationship between perceived sustainability and intention to recommend.

To the best of our knowledge, so far it has never been tested whether a direct relation exists between perceived sustainability and behavioural intentions. In order to start to address this issue, we specify the following hypothesis:

H5: Visitor perceived sustainability has a direct positive influence on the intention to recommend.

Some works assume destination image to be a dimension of the perceived value (Cheng and Chiang-Chuan, 2013; Bajs, 2015). Others consider image as a construct of its own (e.g. Moon and Heesup, 2019; Ramseook-Munhurrun et al, 2015). According to Baloglu and McCleary (1999), "Research of the past two decades has demonstrated that image is a valuable concept in understanding the destination selection process" (p.868). It may seem controversial to assume that a construct that influences the pre-trip choice of the destination could measure its value as experienced during the visit. So, we consider image as a holistic (Kim and Chen, 2016) and synthetic concept that can be measured unidimensionally with no important loss of information (Moon and Heesup, 2019). Image foregoes perceived value before the travel, but can change, from the pre-trip to the post-trip stage (Yilmaz et al., 2009), influenced by the tourist experience. In fact, studies on the relation between perceived value and destination image have found a direct positive effect of the former on the latter (e.g. Cheng and Chiang-Chuan, 2013; Kim and Chen, 2016; Ramseook-Munhurrun et al, 2015; Hasan et al, 2019). This relationship, if verified together with the influence of perceived sustainability on perceived value (H2), would point out an indirect effect of visitor perceived sustainability on destination image. Therefore, we test:

H6: The perceived value mediates the positive relationship between perceived sustainability and destination image.

To the best of our knowledge, a possible direct effect of visitor perceived sustainability on destination image has never been tested. Therefore, to start to fill this gap, we specify also the following hypothesis:

H7: Visitor perceived sustainability exerts a direct positive effect on destination image.

The research model, that takes shape from the hypotheses formulated above, is sketched in figure 1.

<<Figure 1. approximately here>>

## 3. Research design and methods

### 3.1 Study areas

We focus on visitor perceived sustainability in six Italian and three Croatian rural areas at the very early stage of tourism development. These sites are homogeneous in many respects. They are all endowed with valuable natural and cultural heritage, unknown to the general public. They currently attract scarce tourist inflows, mainly composed by travellers passing by, for business motivations or to reach a nearby mass tourism destination, along with emigrants that periodically visit their birthplace. The typical visit lasts very little. Accommodation and restoration supply is minimal, while infrastructures and tourist facilities lack almost completely.

The nine rural areas (listed in table 3) participate in a ERDF Project, EXCOVER, with the goal of augmenting tourist inflows by conveying more value to visitors. Whence the focus on the visitor perceived value. In particular, we stress the role of perceived sustainability, because all the considered areas own natural reserves or historical sites, the protection of which is perceived by residents to conflict with their socio-economic needs.

**3.2 Scales items definition**

Following Churchill (1979), first we drew a large set of items for each construct from the literature review. Then, we held meetings with the local authorities, experts and destination managers, to adapt the identified indicators to the specific context of research. All the nine panels (one for each site) suggested to formulate general questions, because there the typical visitor, being just in transit or staying for very little time, very hardly can observe all the implemented sustainability policies' outputs and all the components of perceived value, identified by the extant studies. These considerations, along with the concern that non-response rates would be excessive, if fine-grained questions were asked, led to the conclusion that just the items shown in table 1 are feasibly measurable and with ensured content validity.

<<Table 1. approximately here>>

Satisfaction, destination image and intention to recommend are measured each with a single item to avoid excessive lengthening of the questionnaire, as in some extant studies (see table 1). Like in most of the literature (e.g. Bajs, 2015; Moon and Heesup, 2019), answers are expressed through a Likert-type scale ranging from 1 to 7. The scale items were

developed in English and verbally translated by trained professional interviewers in the respondent's language during the questionnaire submission.

The EXCOVER project's agenda and budget (as well as the difficulty to find visitors in these areas) prevented us from performing an exploratory factor analysis on a pilot study (e.g. Baral et al, 2017). Thus, we test both the measurement models, recommended by the experts' panels, and the structural model, resulting from the research hypotheses, by adopting a confirmatory approach.

**3.3 Data collection**

The reference population of this study are visitors (also those who spent no night at the destination) of the nine rural areas under investigation. The lack of timely official data about the tourist demand at the municipal level forced us to determine the sample sizes based only on the last available figures of tourist arrivals (see table 2).

<<Table 2. approximately here>>

Questionnaires were submitted through face-to-face interviews, between April and December 2019, as not all destinations were ready to start at the same time for administrative reasons and because peak season differs by area. 1,129 questionnaires over 1,256 were completed, reaching a global response rate of 90%. The samples composition is shown in table 3.

<<Table 3. approximately here>>

Non-response rates are very low, except for Čavle and Karlovac, where interviewers reported that a considerable percentage of visitors, on site for sport activities, declared themselves too busy to answer. However, we checked the presence of non-response bias (see: Berg, 2010) through chi-square tests for difference in proportions. Samples resulted unbiased at the usual 5% significance level.

**3.4 Data analysis**

In most tourism literature, the perceived value of destinations and its relationships with other constructs are modelled through either covariance-based Structural Equation Models (CB-SEM, e.g. Cheng and Chiang-Chuan, 2013; De Oliveira Santini et al, 2018), or Partial Least Squares (PLS, e.g. Oviedo-García et al, 2017; Frías-Jamilena et al, 2018). Both methods treat ordinal variables (ratings) as continuous. This may produce biased results whether the sample size is not big enough, in presence of heteroskedasticity or when the responses' distribution is too skewed (see Tiefenbach and Kohlbacher, 2015; Guizzardi and Stacchini, 2017). In CB-SEM, departure from multivariate normality of the latent continuous factors, that underlie ordinal indicators, biases results (Prebensen and Xie, 2017). PLS require less tighten distributional assumptions, nonetheless standard errors are biased if data are highly skewed (Hair et al, 2016) as typically happens for customer survey data (see: Winship and Mare, 1984; Peterson and Wilson, 1992).

When responses are heteroskedastic or concentrated on the top levels of the rating scale, it may become necessary to employ a less frequently used class of models, conceived for ordinal data specifically: the ordinal SEM (Katsikatsou, 2013), that takes the following form:

Measurement model $Y^* \sim N_{13}(0,1)$ (1)

| | | | |
|---|---|---|---|
| | $Y^* = \eta\Lambda + \varepsilon;$ | $\varepsilon \sim N_{13}(0, \sigma_\varepsilon^2)$ | (2) |
| | $\eta = \Pi\xi + \partial;$ | $\partial \sim N_3(0, \sigma_\partial^2)$ | (3) |
| Structural model | $\xi = \eta B + X\Gamma + \zeta;$ | $\zeta \sim N(0, \sigma_\zeta^2)$ | (4) |
| | $Y^* = X\Theta + k;$ | $k \sim N_{13}(0, \sigma_k^2)$ | (5) |
| | $W = X\varphi + \eta\Psi + \xi\varrho + \nu;$ | $\nu \sim N_3(0, \sigma_\nu^2)$ | (6) |

$Y^*$ is a 1,129x13 matrix (1,129 observations, 13 indicators of 3 exogenous latent variables: perceived sustainability, functional and affective benefits) of latent standard normal variables, assumed to underlie indicators (as in the common Probit model, but with 7 ordered categories). The thresholds delimiting the 7 intervals of the standard normal variables are to be estimated. $\eta$ is the 1,129x3 matrix of the 3 exogenous latent variables. $\Lambda$ is the 3x13 constrained matrix of loadings (here, as in the following, the vector elements not representing a relation hypothesized in the research model are constrained to zero). $\varepsilon$ is the first-order measurement error, with variance $\sigma_\varepsilon^2$ fixed to 1 to scale $\eta$. $\xi$ is the perceived value. $\Pi$ is a 3x1 vector of parameters evaluating the degree to which the corresponding first-order latent factor measures $\xi$. $\partial$ is the second-order measurement error, with variance $\sigma_\partial^2$ fixed to 1 to scale $\xi$.

The $\beta$ parameter in the 3x1 vector $B = (0,0,\beta)'$ measures the effect of perceived sustainability on the perceived value. $\Gamma$ is the *m*x1 vector of regression coefficients, quantifying the influences of *m* observable exogenous variables (both trip-related and socio-demographic), contained in the 1,129x*m* matrix $X$, on $\xi$ (*m* varies for different specifications we used to test the poolability of the sample). $\zeta$ is the regression error, with variance $\sigma_\zeta^2$ to be estimated. $\Theta$ is the *m*x1 vector of regression coefficients, representing the effects of observable exogenous variables on $Y^*$. $k$ is the corresponding regression error, with variance $\sigma_k^2$ to be estimated. $W$ is the 1,129x3 matrix of endogenous observable

variables (destination image, satisfaction and intention to recommend), with regression coefficients contained in the *m*x3 matrix $\varphi$ and regression error $\nu$, with variance $\sigma_\nu^2$ to be estimated. $\Psi=(\mathbf{0},\mathbf{0},\psi)'$ is the 3x3 matrix of regression coefficients measuring the influences of perceived sustainability on endogenous observable variables, represented by the 1X3 vector $\psi$. $\varrho$ is the 1x3 vector of regression coefficients assessing the effects of perceived value on the 3 dependent variables of equation (6). It is assumed that the latent variables $\eta$ are not correlated with measurement nor with regression errors.

As the asymptotic normal approximation does not hold (see results), we calculate the matrix of observed correlations through polychoric coefficients, in case of two ordinal variables, and tetrachoric correlations, for ordinal-binary variables (Mangal, 2010). To cope with high frequencies of missing data, that prevent the use of a 'complete' maximum likelihood method, we apply the pairwise likelihood (PL) approach (Katsikatsou, 2013). It consists in specifying the likelihood function by multiplying the joint probability density *f* of two variables (generically indicated as *x* in equation (7)) at a time (instead of all variables jointly), to obtain more robust estimates:

$$PL = \prod_{m=1}^{M-1}\prod_{j=m+1}^{M}[f(x_{n,m}, x_{n,j}\,;\Theta\,]^{w_{m,j}} \qquad (7)$$

Where *M* is the total number of variables of the model, *m={1, …, m, j ,…, M}*, *n={1, …, n, …,* 1,129*}* indicates the *n-th* observation, Θ is the matrix of all the model parameters and $w_{m,j}$ is a weight that can be used to attribute different importance to certain observations. In this case $w_{m,j} = 1$ for all *m* and *j*.

We compute direct, indirect and total effects of perceived sustainability on endogenous variables, by replacing $\xi$ in equation (6) with the right-hand side of equation (4), as suggested by Bollen (1987):

$$W = X\varphi + \eta\Psi + [\eta B + X\Gamma + \zeta]\varrho + \nu = X(\varphi + \Gamma\varrho) + \eta(\Psi + B\varrho) + \zeta\varrho + \nu \quad (8)$$

Then, the total effects of perceived sustainability on the observable endogenous variables are $T_W = (\Psi + B\varrho)$ , the indirect effects are $I_W = B\varrho$ and the direct effects are $D_W = \Psi$. Since perceived value is the only endogenous latent variable of the structural model, it results: $T_\xi = \beta = D_\xi$ and $I_\xi = 0$.

The model form in the case of CB-SEM for continuous data can be described by equations (2) to (6), by replacing $Y^*$ with the matrix of observed indicators. There, the parameters to be estimated are the same, except for the items' thresholds, therefore, fixed a sample size, it implies a higher number of degrees of freedom.-The whole analysis is conducted with R statistics (lavaan package).

## 4. Findings

### 4.1 Data distributional properties and poolability

The frequency histograms of endogenous observed variables and indicators (figure 2) show markedly non-normal distributions, confirmed by the Shapiro-Wilk's tests, (see appendix, table 6). All the assessed variables are strongly negatively skewed, as shown by D'Agostino's tests, except for entertainment and shopping ratings, that have a positive and less marked skew (0.176). Geary's statistics has not detected concerning kurtosis. Overall, the excessive skewness suggests to employ a SEM for ordinal data.

<<Figure 2. approximately here>>

We aim to investigate perceived sustainability in nine rural areas, but the very small size of the reference populations does not allow to obtain enough degrees of freedom to estimate separate models, not even a multigroup model. So, we pool data from all the areas together. To avoid spatial and samples heterogeneity bias, we add exogenous variables (*X*) on the right-hand side of structural equations (4)-(6). We keep only significant variables, among both the trip-related (country, accommodation type, days of stay, interviewees' ratings of marketing and communication initiatives) and visitors' socio-demographic characteristics (nationality, sex, age, occupation, sector of occupation, education level, income class).

Unobservable heterogeneity is checked through poolability tests for cross-sectional data. First, we consider the significance of destinations' fixed effects, both singularly (through the correspondent paths' P-values) and collectively, by comparing the log-likelihood of the model with and without destination effects. Then, we check for significant differences in correlation matrices between the various areas (Jennrich, 1970). Results (in appendix, table 7) suggest that it is reasonable to estimate a single pooled model.

**4.2 Measurement models**

First, we check the scales reliability. The Cronbach's alpha is 0.71 for perceived sustainability, 0.772 for functional benefits, 0.789 for affective benefits and 0.94 for perceived value, indicating that the measurement instruments are adequate. Indicators do not show multicollinearity problems, as variance inflation factors range between 1.296 and 2.048. We verified the robustness of the scales employed, selecting a 70% of the data randomly – in each municipality - and estimating the same model on this subset. Results are very stable.

The magnitude of loadings $\Lambda$ (see table 4) suggests that the perception of a good state of conservation of the cultural heritage is the most important indicator of perceived sustainability, followed by the observation of environmental protection measures, confirming the findings of Iniesta-Bonillo et al. (2016). The appreciation of a well-developed social welfare is a significant indicator of perceived sustainability, similarly to the recognition of a good level of safety and security in the destination. The first item approximates perceived economic sustainability, while the second is a proxy of perceived social sustainability (Sánchez-Fernández et al. 2019).

<<Table 4. approximately here>>

With reference to the estimated coefficients $\Pi$ of equation (3), functional benefits appear the most important dimension of perceived value, consistently with previous findings (e.g. Polo Peña et al, 2012; Bajs, 2015). Functional benefits are indicated to the greatest extent by visitors' evaluations of climate, that, in the extant literature, is considered a territory's natural quality (Dedeoğlu, 2019) or component of destination image (Yen and Teng, 2015), contributing significantly to perceived value. The negative loading for the evaluation of prices supports the conception of perceived value as a cost-benefit trade-off (Oliver, 1999; Lapierre, 2000). Consistently with the rural character of the sites under analysis, relaxation is the most important indicator of affective benefit (Park and Yoon, 2009; Polo Peña et al, 2012). However, also feeling welcomed by the local community is fundamental to visitors, confirming the prominence of the social character of tourism (Gallarza and Gil-Saura, 2008).

**4.3 Hypotheses testing**

Overall, the model is significant at a level lower than the usual 5%, based on heteroskedasticity-consistent Huber-White standard errors. The goodness-of-fit is very satisfying (Tucker-Lewis non-normed fit index equal to 0.95). For the sake of synthesis, in table 5 we show only the coefficients' estimates useful to test our research hypotheses (the complete estimation output is shown in appendix, table 8). Parameters $\psi_1$, $\psi_2$ , $\psi_3$ and $\beta$ quantify the direct effects of perceived sustainability on satisfaction, intention to recommend, image and perceived value, respectively. Coefficients $\varrho_1$, $\varrho_2$ and $\varrho_3$ assess the direct influence of perceived value on the three observed endogenous variables.

<<Table 5. approximately here>>

Although, as expected, both total and indirect effects of perceived sustainability on satisfaction are positive and significant, its direct influence is negative, with a significance level lower than 10%. Therefore, H1 is not supported by our data. This result contrasts with that of Iniesta-Bonillo et al. (2016) for green destinations, but is consistent with findings by Bernini et al. (2020) for mass tourism destinations. This may suggest that the perception of sustainability in blatantly eco-friendly destinations increases satisfaction directly, confirming the tourist's expectation (Oliver, 1980), while, in areas not expected to be particularly sustainable, measures for protecting the natural and cultural heritage might be perceived immediately as limitations to a more comfortable and full-service tourist experience (similarly to Mariani and Guizzardi, 2020). Nonetheless, the results of such measures (a pristine nature and well-conserved historical attractions) increase the perceived value greatly. In fact, the estimated value of $\beta$ is by far the largest one, strengthening the finding of Iniesta-Bonillo et al. (2016) and confirming H2. Since perceived value exerts a direct positive effect on satisfaction, as shown by the value of $\varrho_1$, also H3 is

verified, consistently with a wide corpus of studies (e.g. Bajs, 2015; Prebensen et al, 2016; Oviedo-García et al, 2017).

Based on the estimate of $\varrho_2$, the hypothesis that the perceived value mediates the positive relationship between visitor perceived sustainability and intention to recommend (H4) is supported. In the light of the literature, we expected this positive influence on behavioural intentions (e.g. Cheng and Chiang-Chuan, 2013; De Oliveira Santini et al, 2018). Conversely, we detected no significant direct effect of perceived sustainability on the intention to recommend. Thus, H5 does not hold. In this case, the total effect equals the indirect effect, that is positive and of considerable magnitude.

The perceived value mediates also the positive relationship between perceived sustainability and destination image, so H6 is verified. This evidence confirms previous findings (e.g. Cheng and Chiang-Chuan, 2013; Kim and Cheng, 2016; Ramseook-Munhurrun et al, 2015; Hasan et al, 2019) and supports the view of image as dynamic construct, influenced by the perceptions accumulated during the tourist experience (Yilmaz et al., 2009). The direct effect of perceived sustainability on destination image ($\psi_3$) is negative and significant, leading to the rejection of H7.

These results help to disentangle the complicated relation between tourism and sustainability (Buckley 2018): on the one hand, the conservation of heritage resources often limits the presence and usability of tourist services (Blanco, 1996), with negative (direct) consequences on visitors' perception of the area as a tourist destination. To the eye of the average tourist, heritage protection manifests in strict rules, restrictions and prohibitions that limit the range of experiences he can enjoy in the destinations (Cohen et al, 2014), and contrast the idea of freedom and relax connected to a vacation (Aron, 2001). Furthermore, conservation policies can imply difficult accessibility to attractions (e.g. sites not accessible by car) and lack of comfortable services and facilities (e.g. restaurants in parks). If visitors

expected to find missing services and comforts, and to experience forbidden activities, they feel dissatisfied (Weber et al, 2019). On the other hand, the high quality of the natural and cultural heritage, well-preserved thanks conservation policies, increases the overall perceived value, which in turn augments the appeal of destination image (Needham et al, 2016; Stewart et al., 2016), on which perceived sustainability exerts both an indirect and a total positive effect.

**4.4 Comparison of estimates between ordinal and 'continuous SEM'**

Based on the analysis of the data distributional properties, an ordinal SEM looks preferable. However, the SEM for continuous data is the standard in the overabundant literature about perceived value. So, there is room to wonder if, in this case, it is actually worth using a less familiar and more complex method.

In our empirical setting, the ordinal SEM represents the relations between variables more faithfully: the Tucker-Lewis index and the log-likelihood are 0.95 and 768.6 respectively, while for the 'continuous SEM' they are 0.776 and 582.77. Therefore, the systematic differences in size of parameters estimates suggest that those obtained from the 'continuous SEM' are upward biased (see table 5). This was expected, since most of the indicators' levels are higher than the mean (data are highly negatively skewed). In fact, the 'continuous SEM' estimates a reflective latent factor by modelling the differences between the observed levels of its indicators and the corresponding mean, without adjusting for skewness and kurtosis through level thresholds, as the ordinal SEM does. The first-order measurement model appears much more sensitive to the method employed than the other parts of the SEM. Conversely, there is no significant difference in the measurement models of perceived value, as this second-order latent variable is measured by two first-order continuous latent factors in both cases.

Looking at the left panel of table 5, highly significant deviations in estimates can be noticed. We do not discuss their size and direction here, but we highlight that this example clearly suggests that when data seriously depart from normality an ordinal SEM should be preferred.

## 5. Conclusions and implications

The goal of this work was to explore how sustainability can constitute a driver of tourist demand in nine small rural areas of the Adriatic, at the very early stage of tourism development. To this aim, we adapted the measurement model of perceived value of rural tourism proposed by Polo Peña et al. (2012) and the few extant scales for perceived sustainability (Cottrell et al, 2004; Iniesta-Bonillo et al, 2016; Sánchez-Fernández et al, 2019) to the specific context of this research. Then, the contribution of visitor perceived sustainability to overall perceived value, satisfaction, destination image and intention to recommend was estimated through an ordinal SEM, robust to the highly skewed responses.

In general, data support the surmised measurement models fully. Results show that a good state of conservation of the local cultural heritage is the most important indicator of perceived sustainability, followed by the observation of environmental protection measures enforced, consistently with findings of Iniesta-Bonillo et al. (2016). In line with the extant literature (e.g. Polo Peña et al, 2012; Bajs, 2015), functional benefits appear the most important dimension of perceived value.

With reference to the structural relations, we tested seven hypotheses, regarding the direct and indirect effects of perceived sustainability on the main drivers of destinations' competitiveness. The direct effects are either negative (H1, H7) or non-significant (H5), except for that on perceived value, which is strong and significant (H2).

However, the total effects of perceived sustainability on the endogenous variables are all positive, thanks to the mediation of perceived value, that confirms a central construct for destination marketing and management. The indirect effects too are all positive and significant (H3, H4, H6). Thus, we can conclude that sustainability is perceived as a limitation directly, but, indirectly, it appears a booster of destinations' competitiveness, because it increases the overall perceived value.

**5.1 Implications for theory**

To the best of our knowledge, this is the first study exploring the relationship between visitor perceived sustainability and destination image. Results show that measures in place to conserve the cultural and natural heritage can directly decrease the perceived attractiveness of destination image. This mirrors the complicated relation between tourism and sustainability (Buckley 2018). On the other hand, the high quality of the natural and cultural heritage, resulting from sustainability-oriented policies, increases the overall perceived value, which in turn augments the appeal of destination image. This finding is not final, nor readily generalizable, as it regards nine rural areas of the Adriatic. However, it may contribute to the extant literature suggesting a starting point for further research.

Again, to the best of our knowledge, to date it had never been tested whether a direct or indirect relation exists between visitor perceived sustainability and behavioural intentions. Therefore, finding a positive relationship between the former and the intention to recommend the destination, mediated by perceived value, is another original contribution to the theoretical framework of tourist perceived value. In this respect too, we see room for theoretical developments, to disentangle the links that may exist between visitor perceived sustainability and further behavioural intentions, like that of revisiting. More in general, as the literature about perceived sustainability is still in its infancy, our

research can contribute to form the basis of a fruitful theoretical reflection oriented to the definition of a solid theory, able to explain the psychological mechanisms according to which perceived sustainability influences tourist experiences and perceptions. Our findings may suggest further theoretical developments also in the tourism marketing and management literature, for example to explore the effects of measures enforced to protect the environment and the cultural heritage on the perception and intention to visit.

**5.2 Methodological contributions**

A main methodological contribution of this study derives from the validity of the scales, tailored for feasibly appraising visitor perceived value of rural tourism and sustainability, in areas where most visitors are just in transit or stay for very little time. The proposed instruments are simplified and generalized compared to those employed in the little extant literature, but they cover all the fundamental dimensions of sustainability (Sánchez-Fernández et al, 2019) and perceived value of rural tourism (Polo Peña et, 2012). Therefore, the feasible scales presented in this paper can be employed for studying analogous areas, characterized by the touch-and-go nature of the typical visit, implying that interviewees are hardly aware of specific sustainability policies.

A further contribution to research methodology stems from the results of the comparison of the estimates obtained from the SEM for continuous data, that is the standard in the literature, with those yielded by the ordinal SEM. The latter fits the data much better, appearing the correct one. The 'continuous SEM' produced upward biased estimates of both indicators' loadings and structural coefficients, which might be of particular interest to policy-makers and destination managers, for evaluating current destination management and marketing actions, as well as to plan new ones. Therefore, when data display significant skewness or kurtosis, or in presence of omitted variables,

sampling bias and unobserved heterogeneity, data analysts, aiming to provide policy-makers with reliable information, should use an ordinal SEM.

### 5.3 Managerial implications

The results of this study have important implications for sustainable tourism planning and management in the nine areas considered. Destination managers and policy makers must be aware that the careful conservation and valorisation of the local cultural and historical heritage are of vital importance to attract more tourists and convey higher value. Therefore, based on the discussions of results with local policy-makers, destination managers and representatives of the host community, resources and efforts should be focused on the restoration of neglected cultural assets, like the Museum of the Territory in Ostellato, the historical center of Karlovac, ancient buildings in Campobasso, and on the protection of the natural environment. Among the most urgent actions: stop poaching and illegal phishing in Alfonsine, move the military shooting range out of the Interregional Park of Sasso Simone e Simoncello, restore gardens and green areas in Campobasso, and adopt a sustainable and clean waste management system in Čavle. These interventions require conspicuous time and funds. In the meanwhile, appropriate marketing strategies of product presentation, consistent with the characteristics of the target segment of sustainability-conscious travellers, could counteract the negative image of environmental degradation and physical deterioration of the mentioned sites (Hall et al, 2005).

Our finding that visitor perceived sustainability has a negative or non-significant direct effect on destination image, satisfaction and intention to recommend bears important implications. As claimed by local experts, heritage preservation can be perceived as an unproductive burden, in antagonism with the needs and comforts of contemporary life (see also: Lowenthal, 2015; Almeida et al, 2017). All the sites considered, except

Predappio and Čavle, host natural reserves, where fishing and hunting are restricted, while many other activities, like collecting fruits and lighting fires, are forbidden. Typically, tourists are disappointed by these conservation constraints, as they cannot find much else to do in these destinations with still poor tourism supply (Cohen et al, 2014; Weber et al, 2019). Similarly, the conservation of the rich historical heritage, implies urban planning restrictions, preventing the possibility to offer comfortable and modern accommodations and tourist services.

A first strategy to address this issue should focus on the creation of new entertainment opportunities through community participation, as the involvement of residents should favour sustainable solutions (Su and Wall, 2014). To this aim, it is important to explore also the residents' perceived value and mental models of rural tourism, because they change both the nature and the universal value of the heritage. (Honggang and Dai, 2012). However, the new initiatives should not stress already narrow services, nor to damage the natural and cultural resources (Rollins et al, 2016; Weber et al, 2019).

Another working direction can consist in leveraging marketing and communication, for changing potential visitors' expectations and interpretation of heritage protection policies (Lee et al, 2010; Polo Peña et al, 2012; Weber et al, 2019), considering the impact of perceived cultural distance on travellers' expectations (Kastenholz and Lima, 2011). By promoting allowed activities and communicating the social and moral value of supporting the local efforts for the preservation of the natural and cultural resources, destination managers could form a market segment of local heritage supporters (Needham et al, 2016). To this aim, sensitizing communication, also by residents and professional guides, and the experience itself of properly conserved heritage can greatly help (Stewart et al, 2016; Baral et al, 2017). The extant educational materials and activities (e.g. publications and

workshops regarding the local flora and fauna, geology and history), should be enriched by educational initiatives regarding the behaviours and factors threatening the integrity of the local heritage, as well as those favouring conservation and sustainable use (Stewart et al, 2016; Weber et al, 2019).

With reference to conservation constraints to visitor use of the historical heritage, although tourists attracted by cultural resources might willingly give up comforts in exchange for an immersion in the local history, they often remain disappointed by the short opening hours of museums and monuments, a widespread problem in Italy. Thus, destination managers should promote partnerships between the public sector and local associations, to involve residents in voluntary activities aimed at increasing the accessibility and sustainable usability of historical sites.

Our preparatory market researches highlighted that the nine destinations are usually not connected, in the imaginary of potential visitors, to famous historical events that took place there. For example, Nikola Tesla and Benito Mussolini are very famous all over the world, but most of the people has never heard about Gospić and Predappio: their birthplaces. Education and communication actions linking these sites to the most famous events and characters of their history could increase the perceived value of the historical heritage (Polo Peña et al, 2013; Ashraf et al. 2020).

However, a strand of literature has claimed the necessity of involving also tourists in planning heritage conservation and visitor use (Weber, 2019; Moreno-Mendoza et al, 2020). But tourists' preferences vary both between individuals and over time, thus not even the participatory approach is free from limitations.

Finally, in the nine areas, most enterprises are small and have no resources to finance sustainable policies/products outside their core businesses. This situation is common in rural destinations, where cooperation, community participation and networking

are crucial to develop tourism sustainably (Tinsley, and Lynch, 2001). Interregional tourism development projects, like EXCOVER, constitute important catalysts of knowledge, dialogue and collaboration among stakeholders, including visitors. Therefore, we recommend that EXCOVER experts and destination managers work at facilitating the establishment of SMEs networks and consortia, for developing local entrepreneurship, joint initiatives and sharing the costs of advanced services (marketing, ICT, expositions, etc.), taking carefully into account visitors' perspectives, emerging also from this research. By involving the local communities in this Project, we are increasing social cohesion, instilling trust in the possibility for new tourism-related businesses to succeed and providing the informative basis for development.

**5.4 Limitations and future research directions**

The theoretical and managerial implications of this study, and the structural relations tested, cannot be generalized, as they could be a peculiarity of the examined areas. Moreover, the scarcity of tourist demand prevented from collecting enough data to assess our research model for each destination separately and from surveying all the items included in the scales developed by the extant literature. We considered a relatively small set of trip-related variables, thus our model could be not exhaustive (though CB-SEM ensures results' reliability also in this case). Therefore, we would welcome future research continuing to test the structural relations between satisfaction, image and behavioural intentions, in different kind of destinations, with different market compositions (with reference to inbound-domestic segments), and at other stages of tourism development. Future works are also invited to try different indicators, as they may be destination-specific, and include more situational variables. More constructs measuring destinations' competitiveness could be added to the model, for example tourist expenditure, intention to

revisit, tourist expectations. Finally, we did not survey visitors' sustainability consciousness, that could be an important variable to understand the perceived value of sustainability (Gericke et al, 2018). Adding such variable and testing its relations can be another interesting future research direction.

**Declaration of interest statement:** The authors have no relevant financial or non-financial competing interests to report.

**Acknowledgements:** This work was supported by the European Regional Development Fund under Grant Rep.10 Prot.n.52. We thank EXCOVER Project Partners, destination managers and policy-makers for the collaboration.

**References**

Almeida Joana, Costa Carlos, Nunes da Silva Fernando. (2017). “A framework for conflict analysis in spatial planning for tourism.” Tourism Perspectives, 24(10): 94-106.

Almeida Joana, Costa Carlos, Nunes da Silva Fernando. (2018). “Collaborative approach for tourism conflict management: A Portuguese case study.” Land Use Policy, 75: 166-179.

Amir, Ahmad Fitri, Ismail, Mohd Noor Ismawi, and See, Toh Poh. (2015). “Sustainable tourist environment: Perception of international women travelers on safety and security in Kuala Lumpur.” Procedia - Social and Behavioral Sciences, 168: 123-133.

Aron, Cindy S. (2001). “Working at Play: A History of Vacations in the United States.” Oxford: University Press.

Ashraf, Muhammad Saeed, Hou, Fujun, Kim, Woo Gon, Ahmad, Wasim, and Ashraf, Rana Umair. (2020). “Modeling tourists' visiting intentions toward ecofriendly destinations: Implications for sustainable tourism operators.” Business Strategy and the Environment, 29(1): 54-71.

Bajs, Irena Pandža (2015). “Tourist Perceived Value, Relationship to Satisfaction, and Behavioral Intentions: The Example of the Croatian Tourist Destination Dubrovnik”. Journal of Travel Research, 54 (1): 122-134.

Baloglu, Seyhmus, and McCleary, Ken W. (1999). “A model of destination image formation”. Annals of Tourism Reseach, 26, 868-897.

Baral, Nabin, Helen Hazen, and Brijesh Thapa. (2017). “Visitor perceptions of World Heritage value at Sagarmatha (Mt. Everest) National Park, Nepal.” Journal of Sustainable Tourism, 25(10): 1494-1512.

Berg, Nathan (2010). “Non-Response Bias”. Encyclopedia of Social Measurement, 2: 865-873.

Bernini, Cristina, Emili, Silvia, and Vici, Laura. (2020). “Are mass tourists sensitive to sustainability?” Tourism Economics, 1(23), https://doi.org/10.1177/1354816620923212

Blanco, Herranz F.J. (1996). “Fundamentos de la polıtica comunitaria y Espa˜nola en Materia de turismo rural.” Estudios Turısticos, 131: 25-49.

Bollen, Kenneth A. (1987). “Total, Direct, and Indirect Effects in Structural Equation Models.” Sociological Methodology, 17: 37-69.

Buckley, R. (2018). “Tourism and Natural World Heritage: A Complicated Relationship.” Journal of Travel Research, 57(5): 563-78.

Chang Chingching. (2011). “Feeling ambivalent about going green.” Journal of Advertising, 40(4): 19-32.

Cheng, Tien-Ming, and Chiang-Chuan, Lu. (2013). “Destination Image, Novelty, Hedonics, Perceived Value, and Revisiting Behavioral Intention for Island Tourism.” Asia Pacific Journal of Tourism Research, 18(7): 766-783.

Churchill, Gilbert A. (1979). “A paradigm for developing better measures of marketing constructs.” Journal of Marketing Research, 16(1): 64-73.

Cohen, Scott A., Girish, Prayag, and Miguel Moital. (2014). “Consumer behaviour in tourism: Concepts, influences and opportunities.” Current Issues in Tourism, 17(10): 872-909.

Coria, Jessica, and Calfucura, Enrique. (2012). “Ecotourism and the development of indigenous communities: The good, the bad, and the ugly.” Ecological Economics, 73(15): 47-55.

Cottrell, Stuart, van der Duim, René, Ankersmid, Patricia, and Kelder, Liesbeth. (2004). “Measuring the Sustainability of Tourism in Manuel Antonio and Texel: A Tourist Perspective.”, Journal of Sustainable Tourism, 12:(5): 409-431.

Cucari, Nicola, Wankowicz, Ewa, and De Falco, Salvatore Esposito. (2019). “Rural tourism and Albergo Diffuso: A case study for sustainable land-use planning.” Land Use Policy, 82: 105-119.

Dadgostar, Bahram and Robert M. Isotalo. (1992). “Factors affecting time spent by near-home tourists in city destinations”. Journal of Travel Research, 2: 34-39.

De Oliveira Santini, Fernando, Ladeira, Wagner Junior, Hoffmann Sampaio, Claudio. (2018). “Tourists' perceived value and destination revisit intentions: The moderating effect of domain-specific innovativeness.” International Journal of Tourism Research, 20: 277-285.

Dedeoğlu, Bekir Bora. (2019). “Shaping tourists' destination quality perception and loyalty through destination country image: The importance of involvement and perceived value.” Tourism Management Perspectives, 29:105-117.

Dragouni, Mina, Fouseki, Kalliopi, and Georgantzis, Nikolaos. (2018). “Community participation in heritage tourism planning: is it too much to ask?” Journal of Sustainable Tourism, 26(5): 759-781.

Frías-Jamilena, Dolores M., Castañeda-García, Jose A., and Del Barrio-García, Salvador. (2019). “Self-congruity and motivations as antecedents of destination perceived value: The moderating effect of previous experience.” International Journal of Tourism Research, 21(1): 23-36.

Gallarza, Martina G., and Irene Gil-Saura. (2008). “The Concept of Value and Its Dimensions: A Tool for Analysing Tourism Experiences.” Tourism Review, 63 (3): 4-20.

Gericke, Niklas, Jelle, Boeve-de Pauw, Teresa, Berglund, and Daniel, Olsson. (2018). “The Sustainability Consciousness Questionnaire: The theoretical development and empirical validation of an evaluation instrument for stakeholders working with sustainable development.” Sustainable Development, 27(1): 35-49.

González Herrera, Manuel Ramón, Sasidharan, Vinod, Álvarez Hernández, Julian Alberto, and Azpeitia Herrera, Luis Daniel. (2018) “Quality and sustainability of tourism development in Copper Canyon, Mexico: Perceptions of community stakeholders and visitors.” Tourism Management Perspectives, 27: 91-103.

Guizzardi, Andrea, and Annalisa, Stacchini. (2017). “Destinations strategic groups via Multivariate Competition-based IPA.” Tourism Management, 5: 40-50.

Hair, Jr., J.F., Black, W.C., Babin, B.J., Anderson, R.E., and Tatham, R.L. (2006). “Multivariate data analysis” (6th Ed.), Upper Saddle River, NJ: Pearson-Prentice Hall.

Hall, Derek R., Irene Kirkpatrick, and Morag Mitchell. (2005). “Rural tourism and sustainable business.” Bristol: Channel view publications.

Haralambopoulos, Nicholas, and Pizam, Abraham. (1996). “Perceived impacts of tourism: the case of Samos.” Annals of Tourism Research, 233: 503-526.

Hasan, Kamrul, Abdullah, Shamsul Kamariah, Lew, Tek Yew, and Islam, Faridul. (2019), "Determining factors of tourists’ loyalty to beach tourism destinations: a structural model." Asia Pacific Journal of Marketing and Logistics, 32(1): 169-187.

Honggang, Xu, and Shanshan, Dai. (2012). “A system dynamics approach to explore sustainable policies for Xidi, the world heritage village.” Current Issues in Tourism, 15(5): 441-459.

Idziak, Wacław, Majewski, Janusz, and Zmyślony, Piotr. (2015). “Community participation in sustainable rural tourism experience creation: a long-term appraisal and lessons from a thematic villages project in Poland.” Journal of Sustainable Tourism, 23(8-9): 1341-1362.

Iniesta-Bonillo, Angeles M., Sánchez-Fernández, Raquel, and Jiménez-Castillo, David. (2016). “Sustainability, value, and satisfaction: Model testing and cross-validation in tourist destinations.” Journal of Business Research, 69 (11): 5002-5007.

James, Laura, Smed Olsen, Lise, and Karlsdóttir, Anna. (2020). “Sustainability and cruise tourism in the arctic: stakeholder perspectives from Ísafjörður, Iceland and Qaqortoq, Greenland.” Journal of Sustainable Tourism, 28(9): 1425-1441.

Jennrich, Robert I. (1970). “An Asymptotic Chi-square Test for the Equality of Two Correlation Matrices.” Journal of the American Statistical Association, 65: 904-912.

Jordan, Evan J. (2015). “Planning as a Coping Response to Proposed Tourism Development.” Journal of Travel Research, 54(3): 316-328.

Kastenholz, Elisabeth, and Joana, Lima. (2011). “The integral rural tourism experience from the tourist’s point of view – A qualitative analysis of its nature and meaning.” Tourism & Management Studies, 7: 62-74.

Katsikatsou, M. (2013). “Composite Likelihood Estimation for Latent Variable Models with Ordinal and Continuous or Ranking Variables.” Ph.D. thesis, Uppsala Universitet.

Kim, Hyangmi, and Chen, Joseph S. (2016). “Destination image formation process: A holistic model.” Journal of Vacation Marketing, 22(2): 154-166.

Koutra, Christina, and Jon, Edwards. (2012). “Capacity Building through Socially Responsible Tourism Development: A Ghanaian Case Study.” Journal of Travel Research, 51(6): 779-792.

Lane Bernard (1994). “Sustainable rural tourism strategies: a tool for development and conservation.” Journal of Sustainable Tourism, 1(2): 102-111.

Lapierre, Jozée. (2000). “Customer-Perceived Value in Industrial Contexts.” Journal of Business and Industrial Marketing, 15 (2/3): 122-45.

Lee, Jin-Soo, Li-Tzang, Jane Hsu, Heesup, Han, and Yunhi, Kim. (2010). “Understanding how consumers view green hotels: how a hotel's green image can influence behavioural intentions.” Journal of Sustainable Tourism, 18(7): 901-914.

Lekakis, Stelios, and Mina Dragouni. (2020). “Heritage in the making: Rural heritage and its mnemeiosis at Naxos island, Greece.” Journal of Rural Studies, 77: 84-92.

Lowenthal, D. (2015). The past is a foreign country: Revisited. Cambridge: Cambridge University Press.

Mangal, S.K. (2010). “Statistics in Psychology and Education.” Second edition. India, Prentice-Hall.

Mariani, Marcello M., and Guizzardi, Andrea. (2020). “Does Designation as a UNESCO World Heritage Site Influence Tourist Evaluation of a Local Destination?” Journal of Travel Research, 59(1): 22-36.

Moon, Hyoungeun, and Heesup, Han. (2019). “Tourist experience quality and loyalty to an island destination: the moderating impact of destination image.” Journal of Travel & Tourism Marketing, 36(1): 43-59.

Moreno-Mendoza, Héctor, Agustín, Santana-Talavera, and José, Boza-Chirino. (2020). “Perception of governance, value and satisfaction in museums from the point of view of visitors. Preservation-use and management model.” Journal of Cultural Heritage, 41: 178-187.

Needham, M. D., Haider, W., and Rollins, R. (2016). “Protected areas and visitors: Theory, planning and management.” In P. Dearden, R. Rollins, and M. Needham (Eds.), Parks and protected areas in Canada: Planning and management (pp. 104-140). Don Mills: Oxford University Press.

Oliver, Richard L. (1980). "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions". Journal of Marketing Research, 17(4): 460-469.

Oliver, Richard L. (1997). “Satisfaction: A Behavioral Perspective on the Consumer.” New York: Irwin/McGraw-Hill.

Oliver, Richard L. (1999). “Value as Excellence in the Consumption Experience.” In Morris B. Holbrook (Ed.). Consumer Value: A Framework for Analysis and Research, (pp. 43-62). London: Routledge.

Onni, Giuseppe. 2012. “Tourism forms and social sustainability.” 6th Conference of the International Forum on Urbanism (IFoU): TOURBANISM, 1-10, Barcelona: IFoU.

Oviedo-García, M. Á., Castellanos-Verdugo, M., Vega-Vázquez, M., and Orgaz-Agüera, F. (2017). “The Mediating Roles of the Overall Perceived Value of the Ecotourism Site and Attitudes Towards Ecotourism in Sustainability Through the Key Relationship Ecotourism Knowledge-Ecotourist Satisfaction.” International Journal of Tourism Research, 19: 203-213.

Parasuraman, Parsu A., Valarie A. Zeithaml, and Leonard L. Berry. (1985). “A Conceptual Model of Service Quality and Its Implications for Future Research.” Journal of Marketing, 49(fall): 41-50.

Park, Duk-Byeong, and Yoon, Yoo-Shik. (2009). “Segmentation by motivation in rural tourism: A Korean case study.” Tourism Management, 30(1): 99-108.

Peterson, Robert A., Wilson, William R. (1992). “Measuring customer satisfaction, fact and artifact.” Journal of the Academy of Marketing Science, 20: 61-70.

Petrick, James F., and Backman, Sheila J. (2002). “An Examination of the Construct of Perceived Value for the Prediction of Golf Travelers’ Intentions to Revisit.” Journal of Travel Research, 41(1): 38-45.

Polo Peña, Ana Isabel, Dolores María Frías Jamilena, and Miguel Ángel Rodríguez Molina. (2012). “The perceived value of the rural tourism stay and its effect on rural tourist behaviour.” Journal of Sustainable Tourism, 20(8), 1045-1065.

Polo Peña, Ana Isabel, Dolores María Frías Jamilena, and Miguel Ángel Rodríguez Molina. (2013). “The effect of a destination branding strategy for rural tourism on the perceived value of the conservation of the indigenous resources of the rural tourism destination: the case of Spain.” Current Issues in Tourism, 16(2), 129-147.

Prebensen, Nina K., Kim, Lina H., and Uysal, Musaffer. (2016). “Cocreation as Moderator between the Experience Value and Satisfaction Relationship.” Journal of Travel Research, 55(7): 934-945.

Prebensen, Nina K., and Xie, Jinghua (2017). “Efficacy of co-creation and mastering on perceived value and satisfaction in tourists' consumption.” Tourism Management, 60: 166-176.

Ramseook-Munhurrun, P., Seebaluck P., and Naidoo, V.N. (2015). “Examining the Structural Relationships of Destination Image, Perceived Value, Tourist Satisfaction and Loyalty: Case of Mauritius.” Procedia - Social and Behavioral Sciences, 175(12): 252-259.

Roehl, Wesley S., and Fesenmaier, Daniel R. (1992). “Risk perceptions and pleasure travel: An exploratory analysis.” Journal of Travel Research, 2(4): 17-26.

Rodrigo, P. Gawri Kumari and Turnbull, Sarah. (2019). “Halal holidays: How is value perceived by Muslim tourists?” International Journal of Tourism Research, 21: 675-692.

Rollins, R., Dearden, P., and Fennell, D. (2016). “Tourism, ecotourism, and protected areas.” In P. Dearden, R. Rollins, and M. Needham (Eds.), Parks and protected areas in Canada: Planning and management (pp. 391-425). Don Mills: Oxford University Press.

Sánchez-Fernández, Raquel, Iniesta-Bonillo, M. Ángeles, and Cervera-Taulet, Amparo. (2019). “Exploring the concept of perceived sustainability at tourist destinations: a market segmentation approach.” Journal of Travel & Tourism Marketing, 36(2): 176-190.

Stewart, Emma J., Jude, Wilson, Stephen, Espiner, Heather, Purdie, Chris, Lemieux, and Jackie, Dawson. (2016). “Implications of climate change for glacier tourism.” Tourism Geographies, 18(4): 377-398.

Su, Ming M., and Geoffrey, Wall. (2014). “Community participation in tourism at a world heritage site: Mutianyu Great Wall, Beijing, China.” International Journal of Tourism Research, 16(2): 146-156.

Tiefenbach, Tim, and Florian, Kohlbacher. (2015). “Individual differences in the relationship between domain satisfaction and happiness: The moderating role of domain importance.” Personality and Individual Differences, 86: 82-87.

Tinsley, Ross, and Paul Lynch. (2001). “Small tourism business networks and destination development.” International journal of hospitality management, 20(4): 367-378.

Tse, David K., and Peter C. Wilton. (1988). “Models of Consumer Satisfaction Formation, an Extension.” Journal of Marketing Research, 25: 204-212.

UNDPCSD, UN Division for Sustainable Development. Department of Policy Co-ordination and Sustainable Development. (1996). “Indicators of Sustainable Development, Framework and Methodologies.” United Nations, New York.

UNESCO. (2012). World Heritage and Sustainable Tourism Programme 2013-2015, retrievable from: https://whc.unesco.org/uploads/activities/documents/activity-669-6.pdf.

Weber, Melissa, Mark, Groulx, Christopher J. Lemieux, Daniel, Scott, and Jackie Dawson. (2019). “Balancing the dual mandate of conservation and visitor use at a Canadian world heritage site in an era of rapid climate change.” Journal of Sustainable Tourism, 27(9): 1318-1337.

Winship, Christopher, and Mare, Robert D. (1984). “Regression Models with Ordinal Variables.” American Sociological Review, 49: 512-525.

Yen, Chang-Hua, and Teng, Hsiu-Yu. (2015). “Celebrity Involvement, Perceived Value, and Behavioral Intentions in Popular Media-Induced Tourism.” Journal of Hospitality & Tourism Research, 39(2): 225-244.

Yilmaz, Yusuf, Yılmaz, Yıldırım, İçigen, Ebru, Ekin, Yakin and Utku, Burcu. (2009). "Destination Image: A Comparative Study on Pre and Post Trip Image Variations." Journal of Hospitality Marketing & Management, 18: 461-479.

Zeithaml, Valarie A., and Bitner, Mary Jo. (2003). Services Marketing: Integrating Customer Focus across the Firm. New York: McGraw-Hill Irvin.

Table 1. Scales items

| Latent Construct | Measurement scale items employed | Authors of original scale items we adjusted |
|---|---|---|
| Perceived Sustainability | In this destination I have seen measures in place to protect the environment (L.A.) | Cottrell et al, 2004; Sánchez-Fernández et al, 2019 |
| | I perceive a very well-developed social welfare here (L.A.) | Iniesta-Bonillo et al, 2016; Sánchez-Fernández et al, 2018 |
| | The cultural heritage of this destination is well conserved (level of agreement) | Iniesta-Bonillo et al, 2016; Sánchez-Fernández et al, 2019 |
| | This destination offers a high level of security (L.A.) | Cottrell et al, 2004 |
| Perceived Value | | Polo Peña et al. (2012) |
| Functional benefits | Climate (R) | Bajs (2015); Frías-Jamilena et al. (2018) |
| | Entertainment and shopping (R) | Polo Peña et al. (2013); Bajs (2015); Rodrigo and Turnbull (2019) |
| | Accommodation structures (R) | Polo Peña et al. (2012); Rodrigo and Turnbull (2019) |
| | Restauration services (R) | Polo Peña et al. (2013); Bajs (2015) |
| | Professionalism of the local workers in tourism-related businesses (R) | Polo Peña et al. (2012); Bajs (2015); Rodrigo and Turnbull (2019) |
| | Prices (R) | Polo Peña et al. (2012); Polo Peña et al. (2013) |
| Affective benefits | To be in this destination makes me feel excited (L.A.) | Frías-Jamilena et al. (2018); Rodrigo and Turnbull (2019) |
| | To be in this destination makes me feel relaxed (L.A.) | Frías-Jamilena et al. (2018); Rodrigo and Turnbull (2019) |
| | The residents' attitude towards tourists makes me feel very welcomed in this destination (L.A.) | Polo Peña et al. (2013); Rodrigo and Turnbull (2019) |

| | | |
|---|---|---|
| Satisfaction | Satisfaction (R) | Bajs (2015); Oviedo-García et al. (2017); Prebensen and Xie (2017) |
| Destination Image | The image of this destination is very attractive (L.A.) | Dadgostar and Isotalo, 1992; Moon and Heesup, 2020 |
| Intention to recommend | I would recommend to visit this destination (L.A.) | Polo Peña et al. (2012); Bajs (2015); Baral et al. (2017); Prebensen and Xie (2017) |

L.A. = Level of Agreement (1 means "I do not agree at all" and 7 means "I do fully agree").
R = Rating (1 means "very poor" and 7 means "excellent").

Table 2. Information about EXCOVER sites (provided by local policy-makers)

| Area | Tourist arrivals | GDP (millions of euros) | Population | Rural heritage highlights |
|---|---|---|---|---|
| Alfonsine | 846 | 187 | 11,993 | Po Delta Park natural reserve; Sanctuary of the Madonna of the Wood; Agnese Home; Museum of the Senio battle; Monti Home. |
| Campobasso | 97,059 | 523 | 49,320 | Sannitico museum; Mysteries museum and procession; Monforte castle; Murat historical center; Pistilli palace, St. Bartolomeo church; Holy Trinity Cathedral; Savoia Theatre; De Capoa house; Sain Giorgio church; St. Maria de Foras church; St. Antonio Abbot church; Terzani Tower; Musenga manor; Japoce palace. |
| Carnia | 5,789 | NA | 15,452 | Pieve di Gorto and its museum; Museum of Wood and Venetian Sawmill; "Planelas e Scugjelas" permanent exhibition; former Coal Mine Cludinico Museum; church of Saints Vito, Modesto and Crescente; church of St. Maria Maggiore in Dierico; Calice-Screm palace; Mocenigo-Linussio-Fabiani palace, Calice di Villafuori palace, "La Mozartina" museum; Pesariis Clock museum. |
| Čavle | 3,163 | NA | 7,220 | Rječina canyon and river; Ski resort Platak; Svežanj Bay; Crkvica St. Ambroza historical landmark; Church of St. Philip and James. |
| Gospic | 16,033 | 385 | 45,450 | Velebit Nature Park; Lika river; Ante Starcevic Memorial House; Cathedral of the Annunciation of Mary; Nikola Tesla native home; Grabovača cave; Plitivice lakes; Gacka river; ancient village of Vrelo Koreničko. |
| Karlovac | 65,906 | 1,402 | 128,899 | Dubovac castle; Kupa river; Klanac rock; Homeland War arms open-air museum; Rastoke national park; Aquatika aquarium. |
| Ostellato | 5,025 | 83 | 6,030 | The Valleys and and the Mezzano natural reserves; Civic Museum of the Territory; Pieve di St. Vito; Church of St. Peter and Paul; Pumpkin-based cuisine. |
| Predappio | 5,103 | NA | 6,297 | Monumental cemetery and church of St. Cassiano in Pennino; native home and mausoleum of Benito Mussolini; St. Rosa ancient kindergarten and oratory; church of St. Antonio from Padua; Varano palace; Urban museum; Hospitality and Fascio home. |
| Sasso Simone | 18,001 | 106 | 10,117 | Interregional park; Marecchia, Conca and Foglia rivers; many churches, museums, monuments and fortresses in Carpegna, Frontino, Montecopiolo, Pian di Meleto, Pietrarubbia and Pennabilli. |

Table 3. Samples composition

| Area | Sample Size | Non response rate | Percentage of under-35 | Percentage of retired | Percentage with a university degree | Percentage of inbound visitors | Percentage of female |
|---|---|---|---|---|---|---|---|
| Alfonsine | 75 | 0% | 45% | 11% | 36% | 11% | 45% |
| Campobasso | 152 | 7% | 23% | 17% | 50% | 24% | 47% |
| Carnia | 241 | 0% | 33% | 17% | 35% | 25% | 50% |
| Čavle | 143 | 30% | 52% | 2% | 67% | 9% | 49% |
| Gospic | 118 | 3% | 40% | 14% | 53% | 40% | 47% |
| Karlovac | 241 | 29% | 29% | 11% | 73% | 48% | 51% |
| Ostellato | 94 | 0% | 22% | 12% | 29% | 1% | 54% |
| Predappio | 75 | 0% | 21% | 14% | 25% | 13% | 50% |
| Sasso Simone | 117 | 0% | 21% | 48% | 21% | 1.7% | 57% |

Table 4. Estimated measurement models

| LATENT VARIABLES: | INDICATORS: | ESTIMATED LOADINGS |
|---|---|---|
| **Perceived Sustainability** | | |
| | Well-conserved cultural heritage | 0.692 *** |
| | Well-developed welfare | 0.382 *** |
| | Safety and security | 0.381 *** |
| | Environment Protection measures in place | 0.504 *** |
| **Perceived Value** | | |
| | Functional Benefits | 0,602 *** |
| | Affective Benefits | 0.491 *** |
| **Functional Benefits** | | |
| | Accommodations | 0.261 *** |
| | Climate | 0,311 *** |
| | Entertainment and Shopping | 0,106 *** |
| | Prices | -0,193 *** |
| | Tourism workers' professionalism | 0,182 *** |
| | Restauration services | 0,270 *** |
| **Affective Benefits** | | |
| | Excitement | 0,366 *** |
| | Relaxation | 0,404 *** |
| | Feeling welcomed | 0,354 *** |

*** = significance level ≤ 0.01; ** = 0.01< significance level ≤ 0.05; * = 0.05 < significance level ≤ 0.1.

Table 5. Structural effects of perceived sustainability on endogenous variables.

| Dependent variable | Model Parameter | Hypothesis | Estimate (direct effect) | | Indirect Effect of Perceived Sustainability | Total effect of Perceived Sustainability |
|---|---|---|---|---|---|---|
| Perceived Value | $\beta$ | H2 | 2.797 | *** | / | 2.797 *** |
| Satisfaction | $\psi_1$ | H1 | -0.345 | * | 1.013 *** | 0.667 ** |
| | $\varrho_1$ | H3 | 0.362 | *** | | |
| Intention to recommend | $\varrho_2$ | H4 | 0.318 | *** | 0.889 *** | 0.889 *** |
| | $\psi_2$ | H5 | -0.312 | | | |
| Destination image | $\varrho_3$ | H6 | 0.317 | *** | 0.887 *** | 0.334 *** |
| | $\psi_3$ | H7 | -0.553 | *** | | |

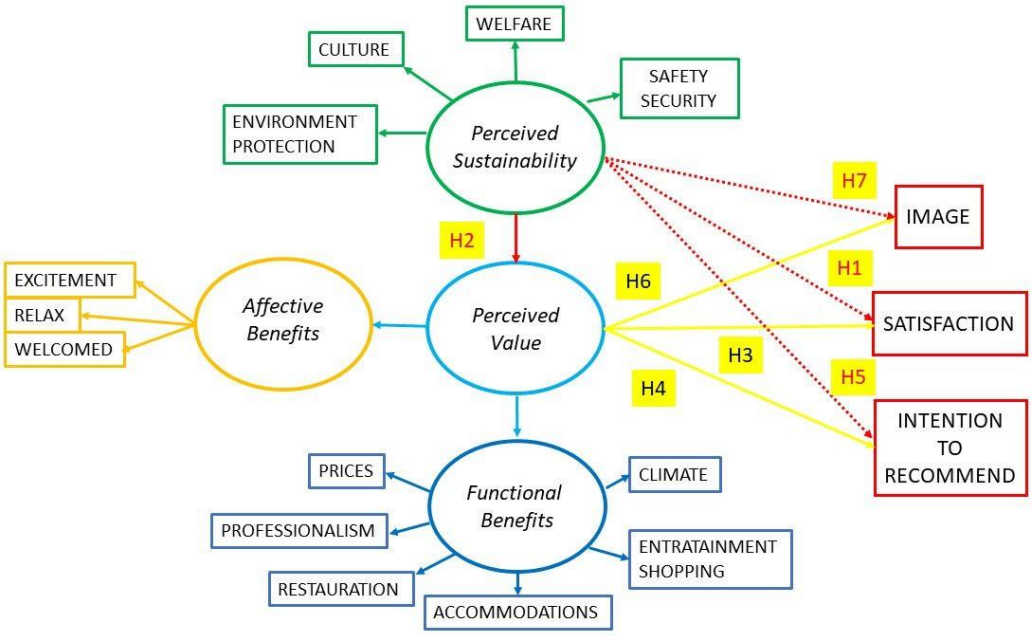



Figure 1. Research model

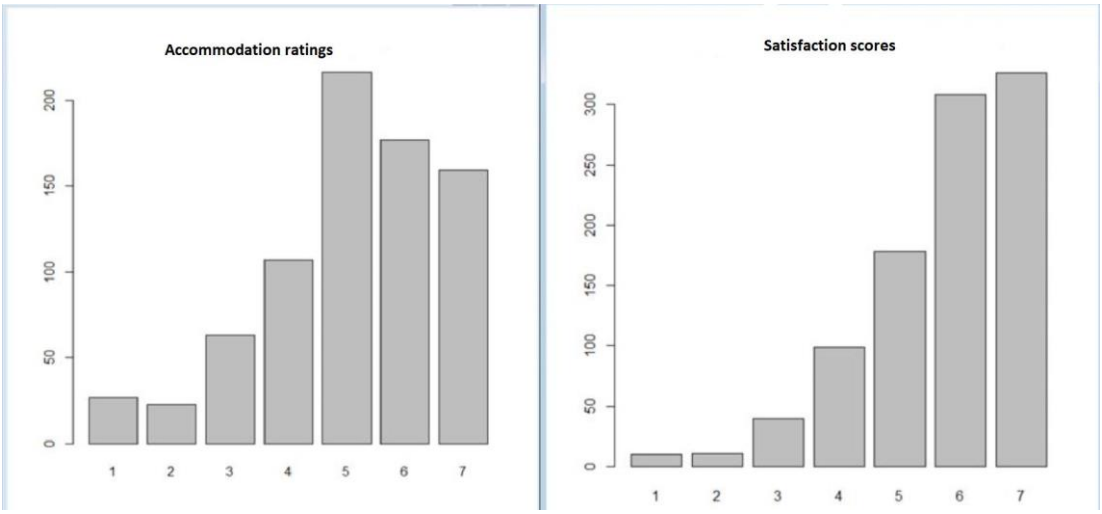
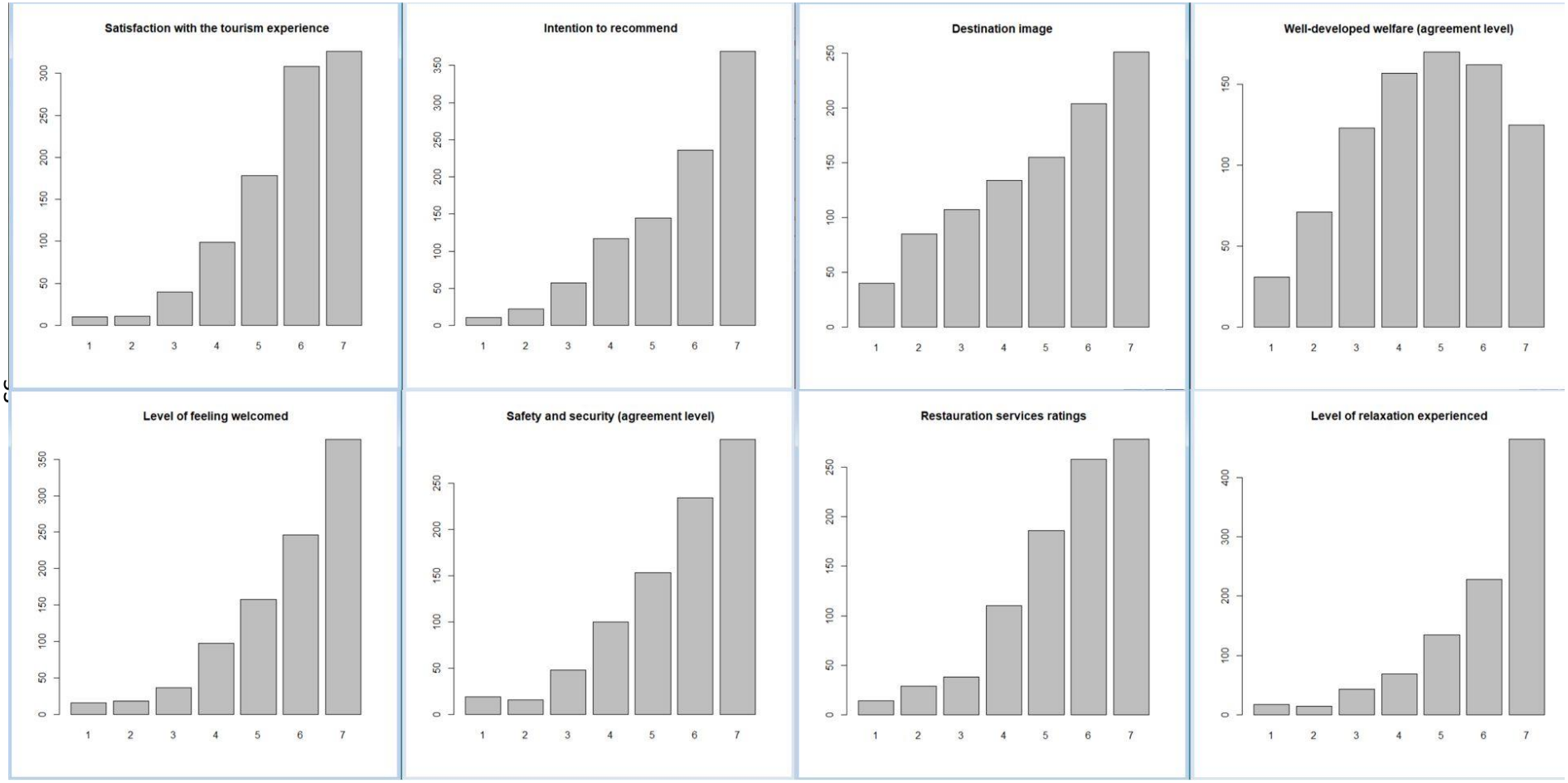
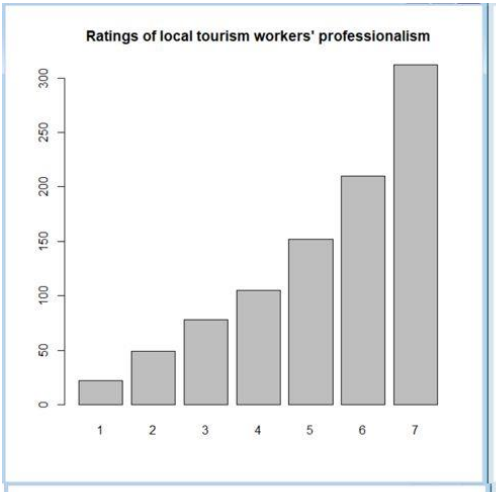



Figure 2. Distribution of accommodation ratings and satisfaction scores (see the appendix for the other variables).

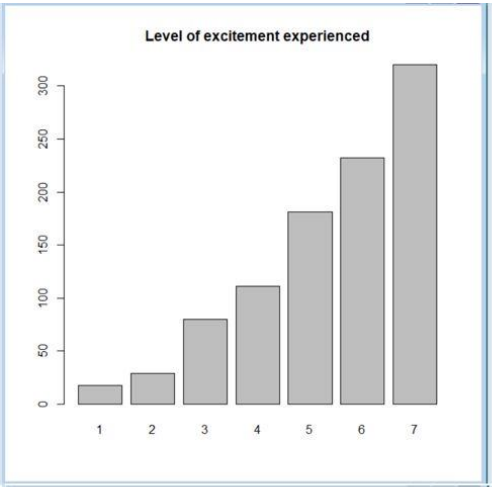
# Additional Materials – Appendix

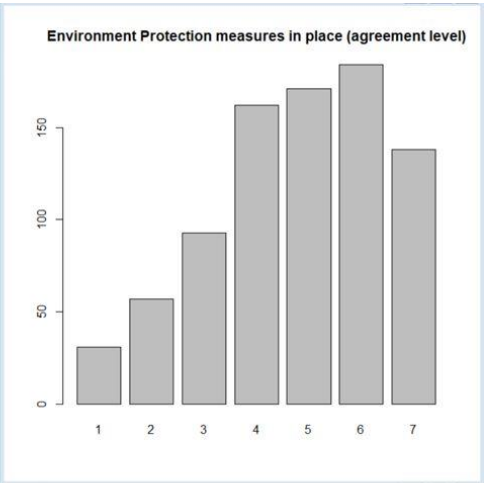
Table 2bis. Empirical distribution of observable endogenous variables and indicators


Satisfaction with the tourism experience
Intention to recommend
Destination image
Well-developed welfare (agreement level)
Level of feeling welcomed
Safety and security (agreement level)
Restauration services ratings
Level of relaxation experienced

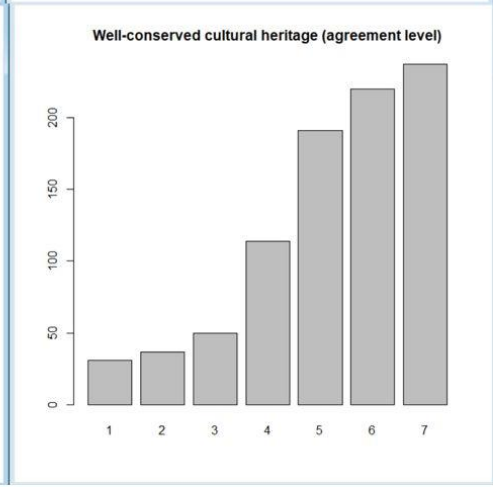

Ratings of local tourism workers' professionalism
0
50
100
150
200
250
300
1
2
3
4
5
6
7

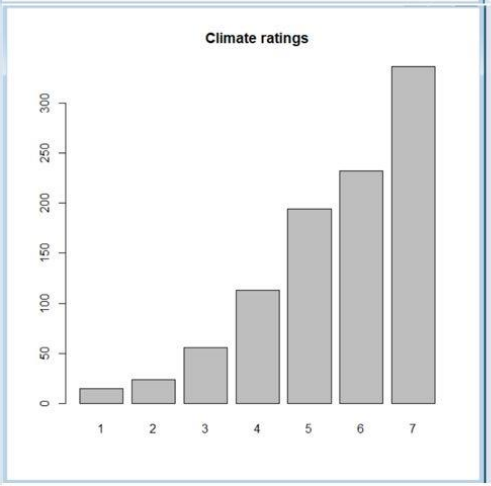

Prices ratings
0
50
100
150
200
250
1
2
3
4
5
6
7


Level of excitement experienced
0
50
100
150
200
250
300
1
2
3
4
5
6
7


Environment Protection measures in place (agreement level)
0
50
100
150
1
2
3
4
5
6
7


Entertainment and Shopping ratings
0
50
100
150
1
2
3
4
5
6
7


Well-conserved cultural heritage (agreement level)
0
50
100
150
200
1
2
3
4
5
6
7


Climate ratings
0
50
100
150
200
250
300
1
2
3
4
5
6
7

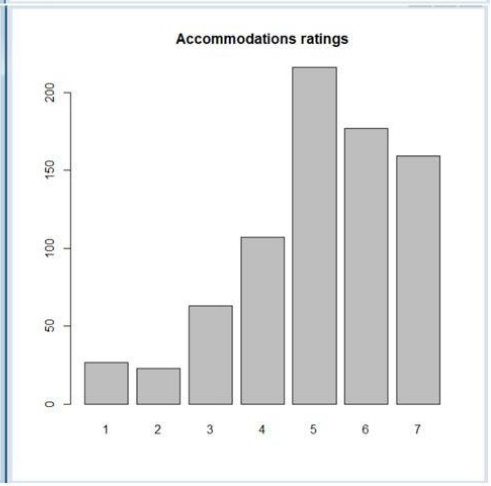

Accommodations ratings
0
50
100
150
200
1
2
3
4
5
6
7

Table 6. Normality test statistics

| Variable | Shapiro-Wilk's test statistics | D'Agostino's test statistics | Skew | Geary's kurtosis |
|---|---|---|---|---|
| Accommodations ratings | 0.902*** | -7.8*** | -0.766 | 0.777 |
| Climate ratings | 0.856*** | -10.6*** | -0.969 | 0.826 |
| Well-conserved cultural heritage (agreement level) | 0.876*** | -9.6*** | -0.914 | 0.807 |
| Entertainment and Shopping ratings | 0.934*** | **2.1**** | **0.176** | 0.850 |
| Environment Protection measures in place (agreement level) | 0.927*** | -5.2*** | -0.454 | 0.830 |
| Level of excitement experienced | 0.864*** | -9.9*** | -0.885 | 0.832 |
| Prices ratings | 0.917*** | -7.3*** | -0.639 | 0.786 |
| Ratings of local tourism workers' professionalism | 0.859*** | -9.3*** | -0.849 | 0.838 |
| Level of relaxation experienced | 0.767*** | -14.3*** | -1.482 | 0.766 |
| Restauration services ratings | 0.861*** | -10.7*** | -1.022 | 0.812 |
| Safety and security (agreement level) | 0.846*** | -10.9*** | -1.088 | 0.813 |
| Level of feeling welcomed | 0.819*** | -12.4*** | -1.229 | 0.798 |
| Well-developed welfare (agreement level) | 0.936*** | -3.4*** | -0.289 | 0.847 |
| Destination image | 0.895*** | -6.5*** | -0.538 | 0.843 |
| Intention to recommend | 0.837*** | -10.8*** | -1.012 | 0.827 |
| Satisfaction with the tourist experience | 0.844*** | -11.8*** | -1.126 | 0.795 |

*** significance level ≤ 0.01; ** 0.01< significance level ≤ 0.05; * 0.05 < significance level ≤ 0.1.

Table 7. Poolability tests

| Fixed effects test | | | | |
|---|---|---|---|---|
| Destination | P-value, Perceived Value eq. | P-value, Satisfaction eq. | P-value, Image eq. | P-value, Recommend eq. |
| Gospic | 0.115 | 0.111 | 0.872 | 0.786 |
| Sasso Simone | 0.783 | 0.187 | 0.863 | 0.621 |
| Čavle | 0.361 | 0.664 | 0.994 | 0.829 |
| Ostellato | 0.111 | 0.102 | 0.619 | 0.500 |
| Alfonsine | 0.121 | 0.131 | 0.731 | 0.711 |
| Carnia | 0.171 | 0.197 | 0.854 | 0.725 |
| Karlovac | 0.105 | 0.187 | 0.800 | 0.668 |
| Predappio | 0.620 | 0.210 | 0.950 | 0.890 |
| Campobasso | reference level | | | |

| | | | |
|---|---|---|---|
| log-likelihood of fixed effects model | 723.193 | Likelihood ratio test statistics | 280.846 |
| log-likelihood of pooled model | 582.77 | | |

Chi-square statistics for pairwise differences in correlation matrices

| | Gospic | Sasso Simone | Čavle | Ostellato | Alfonsine | Carnia | Karlovac | Predappio |
|---|---|---|---|---|---|---|---|---|
| Sasso Simone | 35.1 | | | | | | | |
| Čavle | 29.8 | 45.1 | | | | | | |
| Ostellato | 36.7 | 20.0 | 27.3 | | | | | |
| Alfonsine | 43.8 | 20.3 | 54.6 | 19.4 | | | | |
| Carnia | 49.0 | 25.7 | 48.8 | 36.5 | 33.0 | | | |
| Karlovac | 48.5 | 39.2 | 21.3 | 50.8 | 34.6 | 47.1 | | |
| Predappio | 27.7 | 18.2 | 28.0 | 18.5 | 20.3 | 27.8 | 18.5 | |
| Campobasso | 36.1 | 62.1 | 52.3 | 19.8 | 19.9 | 66.6 | 24.5 | 19.7 |

*** significance level ≤ 0.01; ** 0.01< significance level ≤ 0.05; * 0.05 < significance level ≤ 0.1.

Table 8. Full structural model estimation output

| Variable | Estimated coefficients Ordinal SEM | | Estimated coefficients Continuous SEM | |
|---|---|---|---|---|
| PERCEIVED VALUE | ~ | | | |
| DAYS | 0.558 | *** | 0.219 | *** |
| PERCEIVED SUSTAINABILITY | 2.797 | *** | 3.407 | *** |
| SATISFACTION | ~ | | | |
| PERCEIVED VALUE | 0.362 | *** | 0.45 | *** |
| MARKETING | 0.208 | *** | 0.281 | *** |
| PERCEIVED SUSTAINABILITY | -0.345 | * | -0.681 | |
| CROATIA | -0.249 | *** | -0.55 | *** |
| INTENTION TO RECOMMEND | ~ | | | |
| PERCEIVED VALUE | 0.318 | *** | 0.443 | *** |
| SELF.EMPLOYED | 0.145 | * | 0.179 | ** |
| MARKETING | 0.215 | *** | 0.335 | *** |
| PERCEIVED SUSTAINABILITY | -0.312 | | -0.706 | |
| DESTINATION IMAGE | ~ | | | |
| PERCEIVED VALUE | 0.317 | *** | 0.466 | *** |
| AGE | -0.132 | *** | -0.082 | *** |
| INCOME | 0.143 | *** | 0.082 | *** |
| | | | | *** |
| EDUCATION | -0.17 | *** | -0.15 | *** |
| FEMALE | 0.116 | ** | 0.222 | *** |
| MARKETING | 0.367 | *** | 0.66 | *** |
| PERCEIVED SUSTAINABILITY | -0.553 | *** | -1.002 | * |
| CROATIA | 0.186 | ** | -0.276 | * |
| ACCOMMODATIONS | ~ | | | |
| AGE | 0.199 | *** | 0.096 | *** |
| INCOME | -0.247 | *** | -0.158 | *** |
| EDUCATION | 0.21 | *** | 0.146 | *** |
| MARKETING | 0.221 | *** | 0.35 | *** |
| RESTAURATION | ~ | | | |
| INCOME | 0.134 | *** | 0.156 | *** |
| EDUCATION | -0.162 | *** | -0.17 | *** |
| MARKETING | 0.221 | *** | 0.303 | *** |
| PROFESSIONALISM | ~ | | | |
| AGE | -0.131 | *** | -0.042 | |
| INCOME | 0.15 | *** | 0.064 | * |
| EDUCATION | -0.18 | *** | -0.105 | ** |
| INBOUND | 0.304 | *** | -0.012 | |
| MARKETING | 0.338 | *** | 0.476 | *** |
| CLIMATE | ~ | | | |
| AGE | 0.147 | *** | 0.07 | ** |
| INCOME | -0.136 | *** | -0.018 | * |
| TOURISM SECTOR | 0.453 | *** | 0.348 | ** |

| | | | | |
|---|---|---|---|---|
| MARKETING | 0.101 | *** | 0.224 | *** |
| CULTURE | ~ | | | |
| AGE | 0.307 | *** | 0.259 | *** |
| INCOME | -0.317 | *** | -0.295 | *** |
| EDUCATION | 0.218 | *** | 0.148 | *** |
| TOURISM SECTOR | 0.357 | ** | 0.254 | *** |
| FEMALE | -0.225 | *** | -0.289 | *** |
| MARKETING | 0.157 | *** | 0.220 | *** |
| WELCOMED | ~ | | | |
| INBOUND | 0.282 | *** | 0.240 | *** |
| FEMALE | 0.132 | ** | 0.105 | * |
| MARKETING | 0.252 | *** | 0.335 | *** |
| EXCITEMENT | ~ | | | |
| INCOME | 0.064 | *** | 0.073 | *** |
| INBOUND | -0.213 | *** | -0.203 | *** |
| MARKETING | 0.229 | *** | 0.383 | *** |
| RELAX | ~ | | | |
| MARKETING | 0.163 | *** | 0.240 | *** |
| PRICES | ~ | | | |
| SELF.EMPLOYED | -0.317 | *** | -0.313 | *** |
| MARKETING | -0.143 | *** | -0.202 | *** |
| SEC_SAFETY | ~ | | | |
| INBOUND | 0.152 | * | 0.223 | *** |
| MARKETING | 0.167 | *** | 0.215 | *** |
| WELFARE | ~ | | | |
| AGE | -0.236 | *** | -0.041 | |
| INCOME | 0.313 | *** | 0.034 | |
| EDUCATION | -0.415 | *** | -0.229 | *** |
| INBOUND | 0.739 | *** | 0.286 | *** |
| MARKETING | 0.393 | *** | 0.51 | *** |
| ENVIRONMENT PROTECTION ~ | | | | |
| AGE | -0.205 | *** | -0.045 | |
| INCOME | 0.233 | *** | -0.039 | |
| EDUCATION | -0.328 | *** | -0.134 | *** |
| INBOUND | 0.673 | *** | 0.208 | *** |
| MARKETING | 0.373 | *** | 0.483 | *** |
| ENTERTAINMENT & SHOPPING ~ | | | | |
| TOURISM SECTOR | 0.304 | ** | 0.458 | *** |
| FEMALE | -0.2 | *** | -0.195 | ** |
| MARKETING | 0.274 | *** | 0.492 | *** |

*** significance level ≤ 0.01; ** 0.01< significance level ≤ 0.05; * 0.05 < significance level ≤ 0.1.