

**LOCATION ATTRACTIVENESS AS A MAJOR FACTOR IN MUSEUM VISITOR
SATISFACTION**

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Abstract: Previous studies have examined the role of museums in enhancing the image of a destination and in attracting and conveying additional tourists' fluxes. A number of studies argue that, although not all museums are a destination of choice for visitors, still a great museum or a strong exhibition program do represent a national and international attraction. This paper overturns this argument. It investigates whether an appealing location such as a tourist destination can be considered as an influencing added attribute in determining in prospective visitors the level attractiveness of a pay cultural event taking place therein. In other words, this study examines whether location plays a role in the overall visitor's satisfaction and affect consumer behavior. Therefore, the paper verifies whether an appealing location may function as an attractive platform for cultural events, through which a visitors' satisfaction may be positively influenced.

Key Words: Cultural event; Visitor satisfaction; Location attractiveness; Conjoint Analysis

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INTRODUCTION/ RESEARCH BACKGROUND

Previous studies have frequently observed the role of cultural events and cultural institutions in the attractiveness of a determined destination (a city or a definite area). Specifically, the majority of such studies have collectively examined the role of museums in reinforcing and regenerating the image of a place and in attracting and conveying additional tourists' fluxes. A number of studies argue that, although not all museums are a destination of choice for visitors, still a great museum, an architecturally significant building, or a strong exhibition program do represent a national and international attraction. This paper overturns this argument. It investigates whether an appealing location such as a tourist destination can be considered as an influencing added factor in determining in prospective visitors the level attractiveness of a pay cultural event taking place therein. More precisely, this study examines whether location plays a role in the overall visitor satisfaction and consumer behavior. In sum, the paper verifies whether an appealing location, thanks to its cognitive and emotional features, may function as an attractive platform for cultural events through which a visitor satisfaction may be influenced affecting his willingness-to-pay.

The function of marketing in cultural services and cultural tourism seems more and more relevant. Such fact is particularly evident considering the interest shown by numerous cultural and artistic subjects such as foundations, museums, or exhibitions in visitors' judgments and experience estimation and perceptions' relation to satisfaction.

Visitor experience turns out to be a strategic idea in cultural and artistic marketing as tourists

satisfaction is frequently influenced by the overall experience attained. Visitors look for a complete experience, counting culture, entertainment, knowledge, etc. In order to realize complete and satisfactory experiences for visitors, museums realize a growing number of public-involving events and supply a range of digital and non-digital tools. These events are also developed in order to facilitate the learning or educational experience, and to enhance the overall visitor involvement. In this sense, the museum (within the exhibition) becomes an opportunity for further elaboration of visitors' understanding (Colbert, 2003). Such background explains why museums and exhibitions offer a variety of tangible and intangible services (e.g. educational programs, bars, restaurants, bookshops, events, etc.) aimed to enhance the global experience in terms of accessibility and in terms of various significances transmitted to the visitors. Moreover, museums enforce the general tourism product of a destination by offering a set of emotions linked to a peculiar place and time, which is frequently inaccessible somewhere else (Tuft & Milne, 1999). Museums contribute to the creation of a universal cultural system aimed to disseminate experiences and knowledge (Herreman, 1998) and, at the same time, supply "hereness" emotions (Kirchenblatt-Gimblett, 1998).

Among all these factors, which clearly affect the visitor satisfaction, the location of the museum appears therefore another significant element that deals with visitors' emotions and that may influence their level of satisfaction and their consumer behavior.

Marketing literature has extensively debated consumer satisfaction (Bowen, 2001; Oliver, 1993; Yuksel & Yuksel, 2001). Although past literature has focused on observing satisfaction by the estimate consumers formulate of perceived quality from their expectations, latest literature has understood the emotions consumers experienced as the determinants in generating satisfaction.

Through such theoretical framework, this paper consider a different explanatory factor of

visitor satisfaction in exhibitions as promoters of cultural goods. Therefore, this study assimilates a new location-based theoretical path. In fact, despite the correlation between expectations and perceived quality seems crucial in order to measure visitor satisfaction, we argue that experiences and emotions are also relevant to cultural and artistic activities, and that an attractive location positively influences both (experiences and emotions).

Among all the various resources, services, and tools supplied by museums, the insertion of emotions in the notion of satisfaction is quite significant assuming that the preponderance of services are founded on visitors' experiences (Szymanski & Henard, 2001). An attractive location, such as a famous touristic destination, simultaneously represents an added value in the overall visitor experience and affects museum visitors' emotions. Effectively, visits to cultural attractions and events are usually a secondary activity and not the main motivation for visiting a destination (McKercher, 2004). Thus, considering a museum, an appealing location such as a tourist destination can be considered as an influencing added factor in determining in prospective visitors the level attractiveness of a pay cultural event taking place therein such as an exhibition. In this paper, we will then consider a particular type of cultural tourist which views art and culture as an "extra" beside another principal motivation which is represented by the attractive tourist destination (Silberberg, 1995).

Moreover, an attractive tourist destination represents in visitors' mind a particular level of emotion connected to enjoyment (Dolnicar, 2002). Taking into account visitor satisfaction, previous literature underlines the effect of service quality (Caldwell, 2002; Harrison & Shaw, 2004), but doesn't reflect on emotions such as the enjoyment resulting from the exhibition's location.

In this paper results of a survey are proposed in order to enlighten the creation of visitor satisfaction from the relationship between cognitive opinions and affective opinions, and to

demonstrate the role of positive emotions linked to the exhibition's location when such location it is represented by an appealing tourist destination. Empirical analysis performed in the Doge's Palace during the "Venice and Islam 829-1797" art exhibition held in Venice in 2007 allows us to formulate conclusions and establish managerial implications.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Visitor satisfaction

The topic of visitor satisfaction is extensively discussed in literature. First of all, the concept of satisfaction has been variously identified (Babin & Griffin, 1998; Oliver, 1997; Vanhamme, 2000), which means that the concept itself is heterogeneous by its nature. Conventionally, the concept was judged to be a cognitive condition, subjective to precedent perception, and has virtual nature because it is the consequence of the association between a subjective experience and a precedent base of reference (Churchill & Surprenant, 1982; Oliver & Desarbo, 1988). Lately, there has been a growing acknowledgment amongst literature that a merely cognitive approach might be inappropriate in shaping models in order to measure satisfaction. Moreover, the urge to value satisfaction from a more emotional angle has been emphasized, even though constantly beside cognitive perceptions (Philips & Baumgartner, 2002; Wirtz & Bateson, 1999). The insertion of emotions into the approach of consumer satisfaction is notably relevant considering services: services, in fact, have an experiential nature (Wirtz et al., 2000). For this reason, in this paper instead of considering the exhibition as a product, we will consider the exhibition as a service provided by the museum. Moreover, for the purpose of this study we will consider satisfaction as the total evaluation of different aspects and elements of the service, but also as the sum of the emotions developed both by its cognitive and affective features. The location of the exhibition is in fact a relevant part of the overall visitor experience and when the location is represented by an appealing and attractive tourist destination, this will affect the visitors' perceived quality, visitors' emotions, and the general level of satisfaction.

By assuming the cognitive path in order to observe satisfaction, literature recognizes the

disconfirmation model of expectations (Churchill & Surprenant, 1982; Oliver & Swan, 1989; Prakash, 1984), whereby satisfaction represents a function of disconfirmation which is a meaning of realization and expectation (Oliver, 1997). The confirmation or disconfirmation model expects that satisfaction is accomplished when expectation is reached, and that negative disconfirmation of expectation brings non-satisfaction whilst positive disconfirmation enhances satisfaction. Subsequent to these theories assessing that consumer behavior derives from product and service benefits, use, and perceived quality, marketing literature has started to consider the role of emotions despite their ambiguous nature (Bagozzi, Gopinath, & Nyer, 1999).

In order to prove that an appealing location of an exhibition affects visitor satisfaction, both theoretical paths are useful. In fact, if visitors certainly evaluate the exhibition perceived quality, compare perceived quality and expectation, and pass through a confirmation or disconfirmation procedure in order to assess their satisfaction (cognitive path), they also evaluate through emotions if the exhibition attains or even surpasses expectation.

This paper argues that an appealing location is linked to perceived quality but also stimulates emotions. Therefore, an appealing location impacts visitor satisfaction.

Perceived quality, satisfaction, and consumer behavior

Products and service quality studies are mainly based on a cognitive approach (Vida & Reardon, 2008). At the same time, satisfaction is an emotional effect resulting from experience (Lee et al., 2007). However, the processing paths for measuring quality and satisfaction are different therefore evaluating satisfaction through a feature such as destination/location (Kozak, 2001; Truong & Foster, 2006) might cause a certain degree of complexity derived from dissimilar theoretical and empirical backgrounds. When the evaluation of satisfaction is not alienated from the measurement of destination/location features, authors are not capable to observe the influence of each specific set of features on tourist/visitor satisfaction. Therefore, as for conventional marketing theories (Oliver, 1997) some authors consider quality and satisfaction as different constructs (Hui et al., 2007; Yoon & Uysal, 2005).

A mainstream section of service marketing literature considers satisfaction as an emotional effect that derives from cognitive effects to service experience (e.g. quality perception). Although the main approach considers satisfaction as a result of service quality (Brady, Cronin & Brand, 2002; Taylor & Baker, 1994) a number of authors considers satisfaction as an precursor to service quality (Bolton & Drew, 1991). Moreover, for some authors the path of the relationship depends on whether measurements are formed at a general or transaction-specific level (Parasuraman, Zeithaml, & Berry, 1994). For others scholars, the service quality/satisfaction/behavioral intention theoretical framework is sustained in both levels (Brady et al., 2005).

Tourism literature generally considers the mainstream quality/affects/satisfaction perspective. The role of quality is sustained in the backgrounds of attractions at a tourist destination (Chen & Tsai, 2007). More precisely, some authors assess that perceived service quality impacts tourist satisfaction (Lee et al., 2007) whilst others distinguish between “push motivations” (tourist

emotions, drives, instincts, etc.) which straight impact tourist fidelity to a destination, and “pull motivations” (destination’s features) which straight impact tourist satisfaction (Yoon & Uysal, 2005).

Based on this setting, we propose that the location of an exhibition (represented by an appealing tourist destination) enhances the perceived quality of the exhibition intended as a service provided by the museum. Therefore, the location impacts visitor satisfaction.

In literature, consumer behavior is generally observed within the cognitive/affective/conative background (Lam, Shankar, Erramilli, & Murthy, 2004; Oliver, 1999). The cognitive element or attribute appraisal usually goes before emotional effects (Chiou & Droge, 2006). Emotional effects eventually guide consumer behavior. Empirical studies sustain this theory: in fact, affective satisfaction intercedes with the response of cognitive service quality on conative consumer behavior (Cole & Illum, 2006; Dabholkar et al., 2000). Thus, the relationship between perceived quality and fidelity is in part influenced by general satisfaction. Moreover, service quality, satisfaction, and service value all straight influence consumer behavior when evaluated jointly (Brady et al., 2005). In the midst of these concepts, satisfaction brings the most forceful influence on behavior, followed by service quality and service value. However, satisfaction and service value also influence the relationship between perceived service quality and consumer behavior.

For the aim of this study we consider consumer behavior as the degree of the willingness-to-pay the exhibition ticket. Such degree depends whether the exhibition itself is located in an appealing tourist location or not. In conclusion, we assess that the appealing location of an exhibition impacts the service (the exhibition) perceived quality, affects the overall visitor satisfaction, and influences visitor behavior in terms of willingness-to-pay the exhibition ticket. Based on this background, we suggest that the perceived quality of a destination/location’s features directly

positively influences visitor behavior, and that visitor satisfaction is positively connected to visitor behavior.

Emotional path, satisfaction, and consumer behavior

As previously stated, literature on satisfaction has assessed the necessity to consider emotions in the conceptualization of consumer satisfaction (Oliver et al., 1997; Wirtz et al., 2000). More precisely, in the tourist background there is evidence of a need to add emotional assets alongside with cognitive assets in order to understand visitor satisfaction and visitor behavior (Zins, 2002). A study assesses that emotions are separated in two different dimensions which are pleasure and arousal (Russel & Pratt, 1980). The first dimension refers to the degree at which somebody is happy and feels well under a specific circumstance, while the second dimension refers to the extent to which somebody feels dynamic and motivated.

Taking into account the aim of this study and the particular framework of marketing applied to cultural management and cultural tourism (more specifically to museums and art exhibitions), both dimensions (pleasure and arousal) seem relevant. In fact, in order to demonstrate that an attractive destination/location for an exhibition may function as a strategic tool to attract visitors, it is useful to take into account some features of tourists which refer both to pleasure and to arousal. Observing museums, there is evidence that tourists enhance their desire to visit museums when abroad and when based in an attractive tourist destination (McIntyre, 2007; Prentice, 2011). In other terms, they are more dynamic and motivated. Literature also shows that tourists that visit museums when based in an appealing tourist destination are already predisposed to do so (Harrison, 1997). At the same time, other studies show that tourists under the specific circumstance of visiting an appealing destination, feel well and are happy (Dolnicar, 2002).

Moreover, researches show that highly motivated individuals will assumingly engage at a deeper level with cultural attraction and, as a consequence, will have a more meaningful and emotional experience. Thus, if the objectives of a museum include the animation of the visitors' motivations and the enhancement their knowledge about a particular topic in order to let the visitor experience happiness and pleasure, the museum will certainly attract more visitors. To do so, the fact to be based in an attractive tourist destination might help. On the basis of our assumptions in fact an attractive location enforce visitor satisfaction. Many authors show the relationship between the happiness felt throughout the consumer experience and the satisfaction gained. The more happiness individuals feel during the visit of a destination, the higher their satisfaction (Oliver, 1993; Westbrook & Oliver, 1991; Wirtz & Bateson, 1999). Therefore, an appealing tourist destination should enforce such happiness.

Moreover, some literature has studied the positive relationship between disconfirmation and the degree of emotions with the aim to observe satisfaction (Woodruff et al., 1983). Nevertheless, in a tourist background the relationship between disconfirmation and happiness has not always been proved even if disconfirmation appears to more caused by the perceived quality (Bigné, Andreu, & Gnoth, 2005). Therefore, the perceived quality represents the principal source of visitors' emotions and happiness.

We argue that there is a positive correlation between the emotional experience (linked to the degree of happiness) and the cognitive experience (linked to the degree of perceived quality). Therefore, on this basis perceived quality positively affects happiness feelings and happiness feelings affect visitor satisfaction. We argue that if an appealing location affects the degree of perceived quality, in order to enhance visitors' happiness feelings and visitors' satisfaction museum or an exhibition should be based in an attractive tourist destination.

Satisfaction and consumer behavior

Literature on services and on satisfaction states that satisfaction influences the desire to replicate the purchase and affects the post-purchase behavior (Anderson, 1994; Keaveney, 1995; Oliver & Swan, 1989; White & Yu, 2005). In this sense, visitor satisfaction influences the motivation of the exhibition visit, this being intended, for instance, as its willingness-to-pay the entrance ticket. More precisely, in the framework of museums and exhibition, such statement might be identified as a more intense desire and willingness-to-buy a ticket for an exhibition when such exhibition is located in an attractive location which is represented by an appealing tourist destination. Therefore, the location of the exhibition directly affects the intensification of the exhibition experience, evaluated as visitor aptitude in buying the ticket of the exhibition. This will generate for the museum an economic surplus.

Moreover, it is expected that satisfied visitors will feel more intensively the exhibition experience and, for instance, will be more engaged and more interested in the exhibition itself. In sum, the higher the degree of visitor satisfaction, the higher the degree of visitors engagement and motivation.

In order to quantify the impact of an appealing location in the framework of an exhibition, we consider the appealing location as a “change” in an attribute of the exhibition in monetary terms. In order to reveal the trade-offs among its attributes in terms of total revenue determinants of visitor demand in generating an economic surplus or shortfall, we use a new coefficient for the economic valuation of the “Venice and Islam 828-1797”.

A CONJOINT-BASED COEFFICIENT OF ECONOMIC VALUATION

Preference model

We firstly introduce the stated preference model we use to obtain part-worth utilities, we then propose a new coefficient that measures the monetary variation linked to a hypothetical change in the combination of the attribute levels of a non-market good.

In general, studies investigating willingness-to-pay for environmental or cultural goods use either contingent valuation method (hereafter, CV) or discrete choice experiment (hereafter, DCE) as the stated preference elicitation technique (Boxall, 1996; Bille Hansen 2003; Sanz et al., 2003; Mazzanti, 2003). A typical CV survey asks the respondent about his/her maximum (or minimum) willingness-to-pay for a hypothetical change in a non-market good. As noted by Irwin (1993), the CV process of making decisions differs from that required by the standard conjoint format of DCE in which the respondent is asked to compare alternatives which have a pre-specified price. Given its capability to evaluate differences in preferences of a multi-attribute good, the DCE approach has begun to be used as a multi-attribute based approach to elicit preference structure for non-market goods, such as cultural events (Willis & Snowball, 2009) or environmental goods (Roe, 1996). As price is commonly included as an attribute, DCE provides an estimate of price utility score which can be compared to those of the remaining attributes, even though this approach may imply some problems (Breidert, 2006). DCE adopts a choice modeling approach consistent with random utility theory (Mackenzie, 1993; Mazzanti, 2003). The random utility model often works on the probability of choosing the most preferred choice from the set of alternatives. But this model does not fully exploit all the information contained in the conjoint ranking format. When respondents are asked to express the exact rank order of the alternatives included in a set of choices, the additional information about ordinal ranking of the remaining alternatives beyond the first choice is not utilized by modeling the probability of any specific alternative being chosen as

the most preferred. Beggs et al. (1981) developed a rank data model which is consistent with the random utility theory and exploits all the information provided by a full ordering of the various alternatives. However, this model critically relies on the assumption of independent and irrelevant alternatives (IIA), the violation of which implies that the use of the model is not legitimate (Foster & Mourato, 2002). Hausman and Ruud (1987) argue that IIA violation does not illegitimize the use of the rank data model when aiming at estimating willingness-to-pay measures. In Allison et al. (1994), it was noticed that the use of the rank data model is feasible if its estimates are considered as an approximation of the preference structure of respondents.

More recently, Louviere et al. (2010) argued that DCE differs from traditional CA since there is no error theory associated with CA. Accordingly, DCE seems more suitable than CA for eliciting choice behavior, since the former shows a well-founded theoretical basis in random utility theory. On the other hand, there are at least two remarks in favor of the use of CA. First, when a respondent is asked to rank various alternatives, one can assume that the ranking behavior is related to the choice behavior (Chapman & Staelin, 1982), enabling the ranking choice process to be decomposed into a process composed of a set of DCEs (Louviere et al., 2010). In this case, the difference between discrete choice models and CA in understanding the underlying choice process seems less evident. Second, by using fractional factorial designs instead of full factorial design, CA reduces the set of alternatives the respondent is asked to rank, allowing one to face situations where there are several combinations of attribute levels.

In this paper, we focus on ranking scale and opt for a very general preference model used in traditional CA. In fact, we exploit the information contained in the ranking conjoint format by regressing the individual responses on a piece-wise linear function of all the attribute levels which describe the good in question. Since conjoint data is collected on a nonmetric scale, a nonmetric estimation procedure like MONANOVA would be more appropriate than OLS multiple

regressions; however, as demonstrated in Carmone et al. (1978) and Cattin and Wittink (1982), the OLS regression provides similar parameter estimates for both ranking and rating scales, therefore it seems a reliable estimation procedure. This function is defined as follows,

$$U_k = \sum_{i=0}^n \beta_i x_{ik} \quad (1)$$

where x_0 is equal to 1 and n is the number of all levels of the attributes which define the combination of a given good. Each variable x_{ij} is a dichotomous variable which refers to a specific attribute level, and it equals 1 if the corresponding attribute level is present in the combination of attributes which describes the alternative k , otherwise that variable is 0. As a result, the utility associated with alternative k (U_k) is obtained by summing the terms $\beta_i x_{ik}$ over all attribute levels, where β_i is the partial change in U_k for the presence of the attribute level i , holding all other variables constant. We refer to this piece-wise linear function as a part-worth function model which gives a specific utility value for each level of the considered attributes, usually referred to as part-worth utility. As a consequence, the number of parameters estimated by assuming the part-worth specification is larger than that required by alternative preference model specifications, such as the vector model form and the ideal model.

A new coefficient of economic valuation

Having chosen the preference model (and the ranking scale), we then proceed to develop a coefficient of economic re-evaluation for a hypothetical change that occurs in the combination of the attribute levels. We introduce the following notation:

- Let b be the current profile (hereafter, status quo) of the good or service;
- Let i (with $i=1, \dots, n$) be the alternative profile which differs from b for the attribute level i ;

- Let U_b denote the sum of the part-worth utilities associated with the status quo of the good or service;
- Let U_i denote the sum of the utility scores associated with the alternative profile i .

We can calculate the total utility variation obtained by replacing one attribute level of the status quo b with the attribute level i , that is when passing from the status quo b to the alternative profile i . M_i indicates the ratio which results by dividing the difference between the total utility of the alternative i and the status quo one by the total utility of the status quo (Mariani et al., 2011), formally

$$M_i = \frac{U_i - U_b}{U_b} \quad (2)$$

where U_b is assumed to be different from 0. The ratio in (2) indicates whether the status quo modification generates a loss or a gain in term of total utility. It is evident that a zero value for M_i represents the indifferent situation between loss and gain in terms of total utility. However, the utility modification arising from an attribute level modification can be considered more or less important by respondents. Consequently, such an attribute level modification can have a more important economic impact than a utility modification which has a similar intensity but involves a less relevant attribute. As a solution, we propose to weigh M_i by the relative importance of the modified attribute.

The range of the utility values (from highest to lowest) for each attribute provides an indicator of how important the attribute is compared to the remaining attributes. Attributes with larger utility ranges play more important roles than those with smaller ranges. For any attribute j , the relative importance can be computed by dividing its utility range by the sum of all utility ranges as follows

$$I_j = \frac{\max(W_j) - \min(W_j)}{\sum_{j=1}^J [\max(W_j) - \min(W_j)]}, \quad (3)$$

where J is the number of attributes and W_j is the set of part-worth utilities referred to the various levels of attribute j . Usually, the importance values are represented as percentages and have the property of summing to one hundred. Otherwise, we can express these importance values in terms of decimal fractions whose sum is one. If this is the case, entering the importance of the modified attribute in equation (2), the coefficient formulation becomes

$$MI_{ij} = M_i * I_j \quad (4)$$

Since U_b can be negative, the general formulation of the coefficient is

$$MI_{ij} = \begin{cases} \frac{U_i - U_b}{U_b} * I_j & U_b > 0 \\ \frac{U_b - U_i}{U_b} * I_j & U_b < 0 \end{cases} \quad (5)$$

We can use formula (5) for estimating the variation of the total revenue generated by assuming a change in the status quo profile. Given the total revenue associated with the status quo profile, π , the coefficient of economic re-evaluation is expressed as follows

$$V_{ij} = MI_{ij} * \pi \quad (6)$$

where V_{ij} denotes the amount of the revenue variation. Revenue variation in equation (6) is obtained by supposing that the monetary attribute referred to a non-market good (price or admission charge) varies in proportion to the change in total utility of that good. Although this assumption seems restrictive, we argue that if the monetary amount asked to a user (the visitor) concerning a non-market good (the exhibition) reflects on how that user values the combination of attributes of the good in terms of utility, it is credible to assess the economic value of a change in the combination of attributes as a function of the utility and importance of the modified attribute. In addition, we notice that CA serves the scope of approximating the real structure of preferences, given that only a partial knowledge of preferences can be known. We therefore suggest using the

coefficient of economic re-evaluation as a monetary indicator which approximates the impact of a given utility change in monetary terms.

Application to an exhibition

We apply the coefficient to a survey which refers to the exhibition “Venice and Islam 828-1797”, held in Venice, Doge’s Palace (28 July - 25 November 2007). After Paris and New York, this large-scale exhibition on the relationship between Venice and the world of Islam was hosted in Venice itself in the symbolic Doge’s Palace. Scholars from the Institut du Monde Arabe in Paris, the Metropolitan Museum of Art in New York and the Musei Civici Veneziani, worked together to produce the exhibition. Many of the exhibited works were rented by European and American museums and some private Venetian collections. The exhibition consisted of various sections illustrating different chronological phases and topics of the millenary relationship between the Venetian and Islamic civilizations. The path of the exhibition begins with the legendary transfer of San Marco’s corpse from Alexandria to Venice (827) and continues up to the end of the ‘doge’ era in 1797.

Survey design and data collection method

The sample comprises 501 respondents who were interviewed after the visit. Data was collected by using face-to-face interviews in which each respondent was asked to rank alternatives included in a set of choices presented within a questionnaire. The questionnaire was divided into four sections. In the first section, the respondent was asked to give the reasons that induced him/her to visit the exhibition and to describe the visit through a series of either bundled or unbundled questions. In

the second section, the respondent gave answers about the sources of information used to gather information concerning the exhibition. Furthermore, in this section, the respondent could express a judgment concerning the use of complementary services to be implemented in the visit in accordance with his/her experience. In the third section, the respondent was asked to rank a set of alternatives concerning the arrangement of the exhibition. The last section was devoted to collecting information on the socio-economic characteristics of the respondent.

The alternatives included in the set of alternatives were taken from a full factorial design produced by a permutation of all the attribute levels. Each alternative is described by four attributes: admission charge, location, modality of gathering information about the exhibition, additional information services. Admission charge is defined over three ticket levels. A dichotomous attribute locates the venue in Venice or in a different place. A further attribute distinguishes between information about the exhibition provided to visitors by organizers and information gathered by visitors autonomously. Another dichotomous attribute refers to the presence (or absence) of additional multimedia services that help in the understanding of the exhibition. Starting from a full factorial which comprises ($2 \times 2 \times 2 \times 3 = 24$) profiles, we created a fractional factorial design for main-effects which included eight profiles (Addelman, 1962).

ANALYSIS OF RESULTS

In this section, we hypothesize changes in the status quo and we then calculate the corresponding revenue variation by using the coefficient of economic valuation. We pursue this objective in two stages. Firstly, we estimate part-worth utilities and the relative importance for each attribute. Secondly, we use these estimates to obtain a valuation of revenue variation associated with a change in the combination of the attributes describing the exhibition in question. We also

investigate how the degree of visitor satisfaction affects the visitor preference structure in terms of utility.

We estimate the part-worth utilities using OLS.¹ Table 1 shows the utilities for each attribute level and the relative importance assigned to the corresponding attribute.

Table 1 shows that visitors prefer the venue in Venice rather than in a different place. Visitors seem more interested in collecting information about the exhibition autonomously. In so doing, visitors show a preference towards the provision of additional multimedia services which makes the exhibition easier to understand. Table 1 also presents the importance for each attribute. The admission fee emerges as the most important attribute in terms of relative importance. The modality of gathering information appears as the least relevant attribute whereas location and additional multimedia services show a similar level of relative importance.

The part-worth utilities and relative importance values shown in Table 1 can be used to estimate revenue variation generated by the change in the status quo in accordance with equation (6). We therefore compute the total utility associated with the status quo by summing the part-worth utilities of the corresponding attribute levels. Thus, we can hypothesize any change in the status quo combination of the attribute levels and calculate the total utility assigned to that alternative. Table 2, column 1 outlines the combination of attribute levels specifying the actual exhibition (status quo). If we hypothesize that the revenue generated by this status quo is EUR 93,200 (π), we can estimate the revenue variation induced by a single attribute level change as shown in Table 2.

Table 2 shows that revenue decreases if the venue changes (EUR -5,811.84). Revenue increases by EUR 5,061.19 when multimedia services are available. Furthermore, as visitors prefer gathering information autonomously, such an option generates a revenue gain of EUR 1,770.01.

¹OLS regression is performed using SPSS statistical package.

We then distinguish between visitors who declared that the admission charge was too high and visitors who were happy with it, in order to check whether the utility estimates are influenced by visitor opinions after visiting the exhibition². We create two sub-groups: a group composed of 158 satisfied visitors and a group of 216 unsatisfied visitors³. We aim at assessing the effect of visitor satisfaction on the revenue variation induced by changing the attribute combination. Thus, we calculate the coefficient of re-evaluation for both groups. The results are reported in Table 3.

Table 3 shows that revenue variations are smaller for unsatisfied visitors. In this case, the monetary attribute's relative importance definitely exceeds the importance values of the other non-monetary attributes. This reduces the impact of a utility change generated by modifying a non-monetary attribute on the revenue variation.

CONCLUSIONS, IMPLICATIONS AND LIMITATIONS

In order to quantify the impact of an appealing location in the framework of an exhibition, we have considered the appealing location as a “change” in an attribute of the exhibition (observed as a service provided by the museum) in monetary terms. We have used a new coefficient for the economic valuation of the “Venice and Islam 828-1797” in order to reveal the trade-offs among its attributes in terms of total revenue determinants of visitor demand in generating an economic surplus or shortfall. In fact, conjoint-based studies can be used for non-market goods such as cultural events (e.g. exhibitions). Due to CA capability of addressing the multi-dimensional nature of a given good or service, it can serve the scope of investigating trade-offs between the

² Few respondents (16) answered that the paid admission charge was lower than the amount they were willing to pay. But we excluded these respondents from sub-group conjoint analysis because of the number of respondents willing to accept a higher admission charge was not large enough to form a further group beyond the two groups defined above.

³ A number of visitors (111) attended the exhibition with a cut price ticket or a complimentary ticket, we then excluded them from the sample.

attributes which describe the good or service in terms of utility associated with that good or service. A relevant issue in tourist economic valuation is determining the monetary variation related to a hypothetical change (an attractive tourist destination) which occurs in the combination of attributes (cognitive and affective features) which specifies the service (the exhibition). To solve this issue, we have proposed a coefficient of economic re-evaluation that works on part-worth utilities for determining which revenue variations derive from the introduction of changes in the current specification of the exhibition (here considered as a service provided by the museum). The coefficient has the appealing feature of accounting for the relative importance of the modified attribute when determining the revenue variation. This allows linking the monetary variation with the role played by the modified attribute (whether the exhibition location is represented by an appealing tourist destination or not) compared to those of the other attributes in the outline of the preference structure.

The results from a conjoint survey concerning visiting the exhibition “Venice and Islam 828-1797” have revealed the way preferences affect the revenue generated by that cultural event. We have applied the coefficient to obtain a valuation in terms of total revenue variation generated by considering hypothetical changes in the combination of the attributes of the exhibition, in order to focus on the hypothetical change concerning the attribute of the exhibition location.

Our findings suggest that choosing Venice as the location for the exhibition generates the larger gain in terms of total revenue variation. The reason is that Venice represents an appealing tourist destination. However, we have shown how determinants of demand for the exhibition vary in accordance with actual visitor’s opinion on the admission charge required for attending the exhibit. More specifically, when visitors believe that the admission charge is too high, the hypothetical revenue variations are smaller than for people who are happy with the price. This study has esteemed visitor willingness-to-pay in the Venice-located exhibition by exploiting all the

information collected in a ranking or rating conjoint response format. In fact, this methodology may provide cultural managers cultural events organizers with information on determinants of revenue variation. In order to answer the question of which determinants are the key drivers of visitor behavior and business performance, the relationship between quality and satisfaction turns to be useful for both researchers and cultural managers. The perceived quality of an appealing destination's offerings detained the cognitive aspects of consumer behavior. The visitor satisfaction framework encompasses both cognitive (e.g. the information used to gather information concerning the exhibition; the use of complementary services; the arrangement of the exhibition, etc.) and emotional aspects (the location), while the behavioral framework (the willingness-to-pay) represents the conative feature of visitor behavior. In sum, the location/tourist destination image is linked to the exhibition quality, to satisfaction, and to customer behavior. In other words, an attractive tourist destination mediates the relationship between exhibition quality and satisfaction, which translates into visitor behavior or willingness-to-pay. In addition, visitor behavior is directly related to tourist destination feeling and tourist destination attributes determine the perceived quality and satisfaction of an exhibition/museum's offering. Cultural organizations and cultural managers should then consider most profitable to invest in a new museum or in a cultural event which is located in an attractive tourist destination. The expansion of the cultural tourism sector and improved accessibility of tourist destinations are enhancing competitiveness for cultural managers. Even though a museum comprises various particular cognitive and affective features, museums' visitors might take into account the location and consider the museum and its location as a single entity. Therefore, a visitor's satisfaction results from different cognitive and affective experiences involving various determinants that jointly establish the visitor's perception of the exhibition's attributes. Understanding what drive visitor satisfaction in a cultural organization represents a good foundation for increasing customer retention at the level of

individuals suppliers and the location as a whole and is, as such, fundamental input for cultural organization strategy development and management improvements.

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TABLES

Table 1: Part-worth utilities and attribute importance values

Attribute	Level	Part-worth utility	Attribute importance
Venue:	Venice	0.692	0.23526
Venue:	Other place	-0.692	
Inf. concerning the exhibition:	Autonomous	0.355	0.13948
Inf. concerning the exhibition:	Induced	-0.355	
Additional inf. services:	Present	0.567	0.24974
Additional inf. services:	Absent	-0.567	
Admission charge:	Ticket EUR 8-10	1.266	0.37552
Admission charge:	Ticket EUR 11-12	-0.124	
Admission charge:	Ticket >EUR 12	-1.143	
Intercept		4.183	

Source: own calculations on data provided by the “Fondazione di Venezia”

Table 2: Economic re-evaluation by changing a non-monetary attribute

Status quo	Modification of attribute j	MI_j	$V_j(\text{€})$
Venue in Venice	Other place	-0.06236	-5,811.84
Information concerning the exhibition (induced)	Autonomous	0.01899	1,770.01
Additional multimedia services (absent)	Present	0.05430	5,061.19
Number of observations		501	

Source: own calculations on data provided by the “Fondazione di Venezia”

Table 3: Economic re-evaluation by visitor's satisfaction degree

		Unsatisfied	Satisfied
Status quo	Modification of attribute j	V_{ij} (€)	V_{ij} (€)
Venue in Venice	Other place	-4,932.063	-7,080.85
Information concerning the exhibition (induced)	Autonomous	1,238.385	2,995.64
Additional multimedia services (absent)	Present	4,577.564	6,007.95
Number of observations		216	158

Source: own calculations on data provided by the "Fondazione di Venezia"