APPLYING THE “SERVICESCAPE THEORY”
TO THE MUSEUMS: FIRST EVIDENCE FROM ITALY

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Abstract

This research aims to conceptualise and develop a scale that identifies relevant quality attributes in museum context adopting a servicescape approach. To assess such a relevance, the study examines the effects of the newly developed museumscape scale on museum visitor loyalty (word-of-mouth) in Italy.

The study is exploratory in nature and adopts quantitative methodology. Data have been collected through direct interviews in three Italian art museums and on the basis of a structured questionnaire. All constructs were measured on a five-point Likert scale.

The results showed that six of the seven dimensions of the museum servicescape positively influence visitors’ perceptions of service quality and their word-of-mouth. These are as follows: staff interactions, art gallery quality, aesthetic quality, sign and signage, social interactions and ambient conditions.

The discovered constructs could help museum managers to carefully design and manage the museum servicescape in order to enhance satisfaction and loyalty.
The museumscape scale proved to be adequate in museums and relationships among the service-model variables and other variables were tested, thus increasing knowledge of customer service experience and service quality management.

Keywords
museumscape scale; visitor satisfaction; positive word-of-mouth; service quality management

1. Introduction

Museums are important organizations in our society as they are called to pursue three goals (Chong, 2002; Kotler, Kotler, 1998; Boylan, 2004): to preserve aesthetic integrity and excellence of cultural proposal, to increase and acculturate visitors, to reach economic and financial balance and social consensus. International Council of Museum (ICOM, https://icom.museum/en/) recognized the cultural and social role of museums in our society and redefined the museum in 2007 as “a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment” (ICOM Statute, Article 3, Section 1). The mission of museums includes also the preservation of the cultural heritage over time, the divulgence of aesthetic values and the protection of community interests (Zan, 2003).

Furthermore, museums play a strategic role in our economy as arts and culture are the major components of cultural tourism, representing one of the main income sources for many developed countries like Italy (Banca d’Italia, 2018; Fondazione Symbola, 2018) which houses the highest number of Unesco heritage sites. In this regard, Italy counts 55 Unesco heritage sites and over 4.000 museums (Istat, 2019).

Over time, museums have developed from collection-care and research centres to public service institutions (Kotler and Kotler, 1998; Zan, 2003), and visit guides, events, facilities such as museum bookshops, cafes or restaurants have become part of the museum offering system.

Therefore, the preservation of the aesthetic quality, the improvement of quality of services and of interactions between museum staff and all types of public have become central managerial practices (Solima, 2016; Black, 2018), fundamental to maximize value creation for the visitors, the museum and the community (Di Pietro et al., 2015; Cerquetti, 2016; Pencarelli et al., 2017).

The recent Italian reform of public museums, the so called “the Franceschini reform” of 2014 is coherent to the need to move toward a more service perspective and relational approach to the audience. In particular, the reform was aimed to valorize the biggest Italian state museums, headed by “super managers” with international experience, through financial and managerial autonomy. The goal of the reform was to reinforce valorization and integrate it with conservation, which remains fundamental. In particular, valorization consists in two fundamental marketing activities: the communication of cultural heritage and the creation of adequate services to allow the best fruition of cultural heritage.

In this research, it is assumed that measuring the quality of services in a broad perspective plays an increasingly important role in designing all kinds of organizations’ offering and in satisfying their customers; furthermore, the measurement of customers’
perception of servicescape (Bitner, 1992) represents a fundamental tool to understand and satisfy audience. The servicescape model focuses on three main elements: 1. ambient conditions, 2. spatial layout and functionality, 3. signs, symbols and artifacts.

Considering the strategic role of museums in our society and in our economy and the increasing importance of valorization of cultural heritage to satisfy visitors and to reach museums and community purposes, this study aims to develop a museumscape scale adopting a servicescape approach, thus contributing to fill the gap in the literature and to offer an important marketing tool for museum managers.

It seems quite intuitive from a theoretical and practical perspective the importance of applying the Bitner (1992) theory to the museums context where the ambient and aesthetic conditions play a strategic role for visitors’ satisfaction together with the quality of services offered and of relationship between visitors and museum staff. Evaluating elements of the museum offering system is important to decide how to allocate scarce resources, and is becoming urgent especially in recent years in Italy because of the increasingly limited public resources available, the growing competition among museums and other cultural organizations and increasingly sophisticated and demanding visitors.

In addition, this study aims to assess the relevance of the newly developed scale that describes the quality in museum context adopting a servicescape approach and examines the effects of the proposed (museum scape) scale on museum visitor loyalty (word-of-mouth) in Italy. In particular, three Italian art museums were considered, one located in Mantua (the Ducal Palace of Mantua), one in Urbino (The National Gallery of the Marche, hosted in the Ducal Palace of Urbino), and another in Naples (the museum of Capodimonte hosted in the Royal Capodimonte palace in Naples). Data were collected through direct interviews in the above-mentioned museums. This study contributes to investigate, test and develop conceptually and empirically the important marketing model of Bitner (1992) which is applied to for profit sectors.

First, this study reviews the servicescape literature explaining this model components and their impact on customers’ loyalty (positive word-of-mouth). Then, applications of the model in different contexts are explained. Next, the development of the research design and the description of results are presented and, lastly, discussion and implications are proposed.

2. Theoretical background and conceptualization

The servicescape was introduced by Bitner (1992, p. 65) to the discipline of services marketing and comprises “the dimensions of the physical surroundings that include all of the objective physical factors that can be controlled by the firm to enhance (or constrain) employee and customer actions”.

The servicescape theory has been used extensively in studies examining customer behaviours across many contexts and cultures such as sports stadiums (e.g. Wakefield & Blodgett, 1999), casinos (e.g. Lucas, 2003), banks (e.g. Reimer & Kuehn, 2005), retail settings (e.g. Wirtz, Mattila, & Tan, 2007), airport terminals, universities, hospitals (e.g. Newman, 2007), restaurants, bars (e.g. Kim & Moon, 2009), wineries (Quintal et al, 2015), theatres (Jobst and Boerner, 2015) and hotel (Lockwood and Pyun, 2019).
Some scholars have extended servicescape framework also to specific contexts (cruise ships, festival, music) with unique attributes, referring to as the shipscape (Kwortnik, 2008), the festivalscape (Lee et al., 2008), the musicscape (Oakes & North, 2008).

This suggests there is potential to extend servicescape theory to the museum’s specific context referring to as the museumscape, as there aren’t studies that have examined the servicescape in museums.

Contributing to fill the existing gap in the literature, this study proposes a museumscape scale built on servicescape scales tested in tourism sectors. In particular, the servicescape elements included in the museumscape scale developed in this study have been drawn from the literature and have been properly adapted to the specific context of museums. In doing so, it was necessary first to state what is meant by museumscape. All the elements identified by Bitner (1992) for a servicescape framework understanding environment-user relationships in service organizations are important in a museum context in order to identify a museumscape and analyze the effects of specified attributes on museum visitors’ word-of-mouth. The mood states and behavioral intentions of museum visitors may be affected by these relevant dimensions: ambient conditions; spatial layout and functionality; signs, symbols and artifacts; social interactions.

Ambient conditions take into account variables that affect “perceptions of and human responses to the environment” (Bitner, 1992, p. 65). This dimension includes background characteristics of the environment such as temperature, lighting, noise, music, scent, that stimulate the five human senses and subsequently, affect mood states and behaviors (Bitner, 1992).

Optical, auditory, olfactory and haptic factors of the service environment contribute to affect customers emotions and behaviors (Kwortnik, 2007; Lucas, 2003; Martin and Turley, 2004; Ryu and Juang, 2007).

“Spatial layout refers to the way in which the furnishings and equipment are arranged and the spatial relationships among them”. “Functionality refers to the ability of these items to facilitate performance and the accomplishment of goals” of customers and employees (Bitner, 1992, p. 66). A well-conceived layout minimizes crowding and long waiting times in order to allow visitors to enjoy the core service experience (Kwortnik, 2007; Lucas, 2003). A sophisticated design positive influences the level of customer satisfaction and involvement and, consequently, his/her fidelity in term of repurchase intention (Wakefield and Baker, 1998).

Signs, symbols and artefacts displayed in the exterior or interior environment can play an important role in communicating symbolic meaning, firm image, rules of behavior, creating an overall aesthetic impression and reducing perceived crowding and stress in a jail lobby setting (Bitner, 1992). Effective signage creates positive customer perceptions of the servicescape, which impact on beliefs, attitudes and behaviors (Cockrill, Goode and Emberson, 2008; Newman, 2007).

Special consideration must be given to the effects of the physical environment on the nature and quality of the social interactions (Bitner, 1992, p. 58) between visitors and museum staff. “Behaviors such as small group interactions, friendship formation, participation, aggression, withdrawal and helping have all been shown to be influenced by environmental conditions” (Bitner, 1992, p. 61).

Some examples of servicescape elements adopted in different tourism sectors will follow.
Kwortnik’s (2008) shipscape identified: (1) the natural environment (sea); (2) ambient conditions (scents, sounds, cleanliness and lighting); (3) design factors (decor, color schemes, furnishings and layout); and (4) social factors (crowds, queuing and service staff interactions) for their influence on passengers’ attitude toward their cruise experience.

Alternatively, Lee et al. (2008) identified “festivalscape evaluative criteria (festival environment atmosphere)” and examined “their effects on visitors’ emotions, satisfaction, and loyalty” (p. 57). In particular, their study describes the key facilitating role played by festival emotions in linking controllable festival characteristics to tangible business outcomes. Lee et al. (2008) observed these festivalscape factors: (1) program content; (2) staff interactions (kindness, quick responsiveness, willingness to help, knowledge about the festival, courtesy); (3) facilities of the festival; (4) food (quality, price, traditional, variety); (5) souvenirs; (6) convenience (restroom, parking lot, rest area); and (7) information (installed signboards, prepared pamphlets).

Thomas et al.’s (2010a, 2010b, 2011) and Quintal et al.’s (2015) studies have identified the following attributes of the winescape as the: (1) setting; (2) atmospherics; (3) wine quality; (4) wine value; (5) complementary product; (6) signage; (7) service staff.

Lockwood and Pyun’s study (2019) explored the links between customers’ perceptions of the hotel servicescape and their emotional and behavioral responses. They identified the following hotel servicescape scale: (1) aesthetic quality; (2) functionality; (3) atmosphere; (4) spaciousness; (5) physiological conditions.

The aesthetic dimension (the beauty of artworks) is particularly important in a museum. Radder and Han (2015) developed and verified a conceptual framework through which they determined that museum visitors’ experiences could be represented in terms of Pine and Gilmore’s (1998) four realms of an experience, namely, education, entertainment, escapism and esthetics. They investigated the relationship between personal and trip-related characteristics of visitors and the experience realms and examined the relationship between museum experience and overall satisfaction/behavioral intentions.

3. Method

3.1. Sample and data collection

This exploratory study adopts the quantitative methodology. Data have been collected through direct interviews from 5th July 2019 to 12th July 2019 in three Italian art museums (Tab. 1): the Ducal Palace in Mantua (Lombardia Region, in Northern Italy), the National Gallery of the Marche in Urbino (Marche Region, in Central Italy), the National Museum of Capodimonte in Naples (Campania Region, in Southern Italy) and on the basis of a structured questionnaire. The selected museums are prestigious, have the same nature (they are all art museums), hosted in beautiful and historical palaces and heterogeneously distributed in Italy.

Table 1. Brief description of the three Museums included in the survey

<table>
<thead>
<tr>
<th>Museum</th>
<th>Cultural Heritage</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ducal Palace of Mantua</td>
<td>It was the main residence of the Gonzaga family, lords, marquises and finally Dukes of the city. Under the Austrian domination with Maria Teresa of Austria it</td>
</tr>
</tbody>
</table>
A convenience sampling approach using museum visitors was adopted for the study conducted in the three Italian aforementioned museums. Art museums have been selected as their visitors are more heterogeneous (age, education, employment, etc.) than those of scientific museums. The questionnaire draws on the item scales of servicescape (Bitner, 1982) built in different tourism contexts and developed in this study for the museum context (see next section). In particular, the questionnaire was composed by two sections, relevant to the current study. The first section sought to capture the visitors’ servicescape (Bitner, 1982) perception and its influence on loyalty, while the second describes the respondents’ profile. All constructs were measured on a five-point Likert scale.

Interviewees were asked to indicate the extent of their agreement/disagreement of each statement on a 5-point Likert scale or, alternatively to rate the quality of each museum characteristics on a scale of 1-5 where 1 is low quality and 5 is high quality. The questionnaire is available upon request from the Authors (both in Italian and English).

3.2. Measures and method to derive the measurement scale
Since the primary purpose of this study was to develop a scale that measures the servicescape in the museum context, the development of the “museumscape” measurement...
scale closely follows the recommendation suggested by Churchill (1979) and DeVellis (2003), being Churchill’s (1979) work considered as the gold standard for scale development within the marketing and tourism literature.

First, an extensive literature review has been put in place to delineate what exactly is to be measured. Findings revealed that museumscape, respecting Bitner theory has multiple dimensions. Second, an initial pool of museumscape items was generated from a review of relevant literature by four independent researchers to measure the dimensions derived from the previous literature review. 51 items were selected to represent constructs in the museumscape scale. Next, a review panel of three professionals, in particular directors of Italian national museums, examined the items and provided comments on the constructs and their corresponding items. Eleven items that were considered vague, ambiguous, double-barreled, lengthy or irrelevant were removed from the pool of items, leaving 40 items. No other items have been suggested as to be added by the professional panel.

Loyalty has been interpreted as word-of-mouth and has been derived from existing scales (Lockwood and Pyun, 2019) that demonstrate reliability ($\alpha = 0.89$) and contextual relevance.

In addition to the above variables, we used the following set of controls: gender, age, country of residence, education, employment, and previous museum visits.

3.3. Analytical Method

To identify the underlying dimensions of museumscape and above all to purify the initial items’ set, an Exploratory Factor Analysis (EFA) was conducted. Principal components analysis was used at the extraction stage with Varimax rotation. Kaiser’s (1960) eigenvalue rule (i.e. retention of factors with eigenvalues greater than one) was primarily consulted to determine the appropriate number of factors. Three criteria, namely, a high factor loading ($>0.5$), low cross-loading ($\leq 0.3$) and high communality ($>0.5$) (Costello & Osborne, 2005) were taken into account in deciding to retain an item.

To assess the influence of the museumscape dimensions on loyalty, each dimension score derived from EFA has adopted as explanatory variable in a multiple regression analysis (OLS). Variance Inflation Factor (VIF) has been computed to assess collinearity diagnostic.
4. Results

4.1. Respondents’ profile and descriptive statistics

The sample is composed of 512 respondents. About the demographic characteristics of the respondents’ sample, 56.3% of the interviewed were females, while males accounted for 43.8% in the sample. The majority of respondents were middle aged (35-44 years old sum to 39.8%), and almost all were frequent museum visitors as demonstrated by the number of museum visiting per year (3-5 visits per year equals to 52.3% and over that 5 visits per year equals to 34.0%). Similarly, the majority of respondents were well-educated as they were graduated (bachelor or master equals to 42.0%) or post-graduated (18.9%). The sample contained a variety of occupational groups, including 23.8% office clerks, 17.6% educators, and 10.9% freelancers/entrepreneurs. About one-fifth (20.3%) of the respondents were students. The majority of respondents came from Italy and slightly less than 40% are from all over the world.

All 40 items (with exception of 5 – see infra) generated for museumscape scale development demonstrated a mean score greater than 3.5 indicating that participants had positive experience from their museum visit.

In addition to descriptive statistics, normality was examined through skewness and kurtosis values. All kurtosis values were lower than the cut-off value of 3.0 (Chou and Bentler, 1995) except only 3 items. These 3 items are the same that do not demonstrate a mean score greater than 3.5 and after careful consideration it was decided to eliminate these 3 items from the subsequent analysis.

4.2. Exploratory Factor Analysis and Multiple Regression

The 37 scale items were examined with exploratory factor analysis using a Varimax rotation. The final solution, with 24 items, explained 72.4% of the variance with a KMO of 0.843 and a Bartlett’s Test of Sphericity of 0.000. Factor structures identified staff interaction, art gallery quality, aesthetic quality, sign and signage, social interaction, convenience, and ambient conditions. All dimensions demonstrated excellent reliability as denoted by their Cronbach α value. As expected, aesthetic and exhibition related content are the most important attributes, while structural dimensions (i.e., sign and signage, convenience, ambient conditions) are the least important attributes in the museumscape measurement scale.

Finally, the predictive validity of the dimensions in the museumscape scale has been investigated. Multiple regression analysis tested the capacity of each construct to predict museum visitors’ loyalty as demonstrated by their word-of-mouth. All the Variance Inflation Factors values are below 3, suggesting that multicollinearity is not an issue in this study. As showed in Table 2, staff interaction (β = 0.221, p = 0.000), aesthetic quality (β = 0.324, p = 0.000), art gallery quality (β = 0.372, p = 0.000), sign and signage (β = 0.130, p = 0.000), social interaction (β = 0.079, p = 0.05), and ambient conditions (β = 0.117, p = 0.001) produced significant relationships with the word-of-mouth of the museum visitors of the three Italian national museums, demonstrating the predictive validity of the six constructs. On the other hand, convenience dimension (p > 0.1) seems to not influence museum visitors’ loyalty.
Table 2. Means, standard deviation, and regression data (betas, t-test, p-value and VIF) of the museumscape constructs on museum visitor word-of-mouth

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>α</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-1,263</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Interaction</td>
<td>4,00</td>
<td>.74</td>
<td>,896</td>
<td>,221</td>
<td>6,194</td>
<td>,000</td>
<td>1,021</td>
</tr>
<tr>
<td>Art gallery quality</td>
<td>4,31</td>
<td>.64</td>
<td>,859</td>
<td>,372</td>
<td>10,489</td>
<td>,000</td>
<td>1,014</td>
</tr>
<tr>
<td>Aesthetic quality</td>
<td>4,40</td>
<td>.59</td>
<td>,840</td>
<td>,324</td>
<td>9,121</td>
<td>,000</td>
<td>1,016</td>
</tr>
<tr>
<td>Sign and signage</td>
<td>3,90</td>
<td>.88</td>
<td>,889</td>
<td>,130</td>
<td>3,584</td>
<td>,000</td>
<td>1,066</td>
</tr>
<tr>
<td>Social Interactions</td>
<td>3,03</td>
<td>.49</td>
<td>,762</td>
<td>,079</td>
<td>2,231</td>
<td>,026</td>
<td>1,016</td>
</tr>
<tr>
<td>Convenience</td>
<td>3,69</td>
<td>.68</td>
<td>,693</td>
<td>,044</td>
<td>1,225</td>
<td>,221</td>
<td>1,028</td>
</tr>
<tr>
<td>Ambient conditions</td>
<td>3,71</td>
<td>.90</td>
<td>,793</td>
<td>,117</td>
<td>3,263</td>
<td>,001</td>
<td>1,034</td>
</tr>
<tr>
<td>Gender</td>
<td>-5,014</td>
<td></td>
<td></td>
<td>-3,098</td>
<td>-3,98</td>
<td>,691</td>
<td>1,022</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,834</td>
<td>,067</td>
<td>1,513</td>
</tr>
<tr>
<td>Country of residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,228</td>
<td>,000</td>
<td>1,220</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,812</td>
<td>,417</td>
<td>1,275</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,586</td>
<td>,000</td>
<td>1,143</td>
</tr>
<tr>
<td>Previous museum visits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,097</td>
<td>,010</td>
<td>1,143</td>
</tr>
</tbody>
</table>

Source: Our Elaboration

From the findings, it is clear that the six dimensions appear to be relevant constructs in defining museum visitors’ loyalty toward a museum. Both art gallery quality and aesthetic quality represent the most predictive dimensions immediately followed by staff interaction. Convenience dimension as represented by the experience of cloakroom and bathroom, do not produce any influence on loyalty. It is likely that respondents would like to experience excellent museum core services (art gallery quality, aesthetic quality, quality of guides, etc.) with any specific attention to the other structural museum dimensions.

5. Conclusion, limitation and future research

From the theoretical point of view, the present research contributes to the deepening of the service marketing literature on servicescape in three ways.

First, it demonstrated that the servicescape may be successfully applied in the museum context. This study consists in the first application of such a construct in the museum sector,
while previous applications were focalized in for-profit sectors. It used servicescape theory (Bitner, 1992) to underpin conceptualisation of the museumscape and its attributes.

Second, it developed a scale for measuring the museumscape in the visitors’ perspective and the effects of the identified attributes on the museum visitor loyalty.

Third, it tested a newly museumscape scale that exhibited good reliability. Six constructs within the museumscape scale, i.e. staff interaction, art gallery quality, aesthetic quality, sign and signage, social interaction and ambient conditions, also demonstrated predictive validity, suggesting that it has potential to become a competent measure that can predict visitors’ perceptions and word-of-mouth of the museum visitors.

Furthermore, this study contributes to enrich the literature on museum studies.

From the managerial point of view, the study offers several implications. At a museum level, it identifies which attributes in the museumscape have the strongest effects on museum visitor loyalty and therefore it can assist in the allocation of scarce resources for both short and long-term projects. In particular, this study suggests that managers have to manage well and improve the quality of aesthetics and of art gallery together with the social interactions with staff. As a consequence, investments on conservation of artworks and on museum personnel (training courses, incentive systems, etc.) are strategic both for visitor’s satisfaction and museum success.

At a government level, it is important to support the competitiveness of a country and of its locally-operated businesses, among which, for the context of this study, the museum system is included, given its ability to attract tourists and visitors, and to motivate important investments in the territory. At this regard, the allocation of the resources can guide museum policy making, tourism region and infrastructures development, human resources management, integrated strategies of marketing and communication of brands.

A key limitation to this study regards its convenience visitor sample that is not representative of the average museum tourists/visitors.

Secondly, and as a consequence, the findings cannot be generalized.

Since this is the first step of the research in developing a museumscape scale, the convenience sample responded to the needs required by the exploratory nature of the study conducted. Moreover, convenience sample, given the multiple studies required, is quite normal when the goal is a measurement scale development.

The next steps of the research are the development of new tests to assess convergent and discriminant validity. In this sense, other study development could involve administering the newly developed scale to wider demographic samples, representative of the population at large. Replicating the museumscape scale and testing its psychometric properties across a variety of museums at different levels of development, cross-nationally and even cross-culturally would add rigour to it.

Future research could usefully determine at which stage in the decision-making process the museumscape attributes have the most influence.

References


