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# DOES IT PAY MUSEUMS TO FOSTER CREATIVITY? THE COMPLEMENTARY EFFECT OF INNOVATIVE VISITOR EXPERIENCES

**ABSTRACT.**

This paper aims to explore the link between creativity orientation, investment in visitors' experience and operating and funding performance in tourist attractions, taking museums as a case study. The empirical work is based on an analysis of the information provided by a sample of Spanish, French, German, British and American museums. The findings highlight the positive impact of creativity orientation on museums' operating performance, but show a curvilinear effect on funding performance. The use of new technologies and adaptation to the audience proves positive when seeking to attract visitors

**KEYWORDS:** Creativity, visitor experience, museums, cultural heritage management, cultural tourism, museum funding, technology, innovation, performance, tourism marketing.

## *1. INTRODUCTION*

Creativity is a human trait which drives people to imagine, invent and create (Bryant & Throsby, 2006). Creativity has become essential if the loss of distinctiveness in tourist attractions is to be prevented (Richards & Wilson, 2006). Although it can emerge in any tourist attraction, certain activities are characterised by high degrees of creativity. This is the case of some museums, specially, those devoted to arts and science. In these museums, creativity

entails fostering the activities of artists and researchers alike, stimulating creation, knowledge and ground-breaking projects. Some art museums promote the work of new artists and devote spaces and resources to them; similarly, some science museums provide resources for the projects of academics and researchers (Sheets, 2016; The Art Newspaper, 2016). However, given that creativity is born out of the spirit and will of the artists and researchers, this entails the risk that new ideas and new projects might not meet the expectations of tourists and visitors and by no means ensures a positive market response. The question of how to strike a balance between artistic creativity and economic viability in an uncertain environment arising from the novelty of artistic products for consumers is not a new problem in the field of arts and culture (Greffe, 2016). In the tourism sector, Richards and Wilson (2006) state that creativity and product innovation may be rejected by consumers. In a similar vein, Thimm (2014) highlights the ambivalence of tourists' encounters with creativity, since they can both contribute to supporting innovative tendencies in creative industries or jeopardize creative processes when arts products must be adapted to tourists' tastes.

Bearing in mind this dilemma between creativity and visitor attraction, the present work seeks to explore the link between creativity orientation and performance in museums, focusing specifically on two aspects of museums performance: operating and funding performance. Thus, the current study posits (1) that fostering creativity has a curvilinear effect on operating and funding performance, and (2) that the impact of creativity on operating performance is reinforced by the museum's effort to translate creativity into a valuable and innovative experience for visitors through interaction, adaptation, and technologies.

This paper aims to contribute to the study of creativity in tourist attractions in several ways. Firstly, it explores the effects of creativity on performance in museums. Inquiry into creativity in the specific domain of cultural and creative activities has aroused growing interest in recent years. Various studies have analysed creativity and innovation in different cultural industries

(Wilson & Stokes, 2005; Pratt & Jeffcutt, 2009a; Brandellero & Kloosterman, 2010), as well as creativity in arts from the economic standpoint (Throsby, 2001; Bryant & Throsby, 2006) together with their implications for tourism (Richards & Wilson, 2006, 2007; Richards, 2011). In tourism studies, creativity has been relocated "from a narrow market niche related mainly to the arts and craft products into a much broader phenomenon which touches a wide range of tourism actives" (Richards, 2011, p. 1236). Yet, despite this, there has been little empirical work focusing on creative tourism and results, and the implications for museum performance have scarcely been touched upon.

Second, this study analyses the moderating effect of innovative visitor experiences. A major finding to emerge from a review of the literature reveals that in the context of museums, works addressing visitor experience from the standpoint of museum management are few and far between (Mencarelli & Pulh, 2006; Mencarelli, Marteaux, & Pulh, 2010; Dirsehan & Yalçın, 2011). Creativity may end up driving visitors away from museums unless it is coupled with and channelled through the necessary tools that can serve to promote value by satisfying consumer experiences. As Richards and Wilson (2006, p. 1217) state, "the value of the creative product (…) can be increased by shifting from the passive consumption of creative spectacles or creative spaces to the active involvement of tourists in the creative process". In this vein, we also maintain that studying the moderating role of visitor experience, that is to say, museums' capacity to captivate visitors' emotions, can make a vital contribution to tourism research. As a result, this study conjectures that how the museum handles visitor experience may help to enhance performance, whilst moderating the effect of creativity on performance. Specifically, museums may resort to many complementary means of ensuring that visitor experience is handled effectively. A commitment to a creative supply entails adapting this supply to the particular visitors in question, encouraging visitors to engage and to participate in the exhibition, whilst activating interaction through new technologies.

To sum up, this paper contributes to the debate on the role of creativity in tourism and its implications for developing and managing tourist attractions. From a theoretical point of view, the concept of creativity is introduced as a driver of operating and funding performance. On a practical level, this study finds evidence to support the link between creativity and attracting audiences and museums' revenues, especially when museum management turns creativity into value through interactive experiences.

## *2. LITERATURE REVIEW*

### *2.1. The concept of creativity*

Creativity is more and more being recognised as an important driver of an organization's performance, its success and indeed its very long-term survival (Anderson, Potočnik, & Zhou, 2014). The potential role of creativity as a key resource in the so-called "New Economy" is increasingly attracting the interest of researchers (Bryant & Throsby, 2006; Hon & Lui, 2016). Despite its recognised importance, creativity remains a somewhat hazy concept, the boundaries of which prove hard to define (Markusen, Wassall, DeNatale, & Cohen, 2008). This situation is reflected in the lack of consensus surrounding the notion (Anderson et al., 2014), and has given rise to a variety of approaches when exploring it.

One interpretation sees creativity as a basic human ability: the capacity of certain individuals to create or dream up new things. Such an idea is based on the concept of the "Creative Economy", viewed today as a sector capable of generating wealth and promoting economic development (Florida, 2002; Markusen et al. 2008). According to the *Creative Economy* report published by the *United Nations Conference on Trade and Development* (UNCTAD, 2010), there are varying sources of creativity in the economy, each linked to certain skills: artistic creativity, which implies imagination and the ability to come up with fresh and original ideas and ways of viewing the world; scientific creativity, which involves curiosity and the

willingness to experiment and make new connections when solving problems; or economic creativity, perceived as a dynamic process which leads to innovation in technology, business, marketing, etc.

Another interpretation sees creativity as a process through which ideas are spawned, connected and turned into value (UNCTAD, 2010). Viewed from this latter perspective, it is clear that creativity and innovation are two inter-related concepts. Thus, West and Farr (1990, p. 10) define creativity as the emergence of a novel product "... growing out of the uniqueness of the individual on the one hand, and the materials, events, people or circumstances of his life on the other".

Consequently, creativity and innovation form part of a process (requiring knowledge, networks and technologies) that enables new ideas in innovative goods and services to be generated and transferred (Jeffcutt & Pratt, 2002; Pratt & Jeffcutt, 2009b). Creativity is the stage prior to innovation. Yet whilst creativity deals primarily with the process of stimulating individuals' creative ability to come up with new ideas, innovation focuses on placing a value on and exploiting said ideas (Wilson & Stokes, 2005) by turning them into new products or services. Creativity is used extensively to forge a competitive advantage by developing innovations, turning "creative capital" (Florida, 2002) into a key competitive factor. Moreover, in the domain of museums, creativity has been seen as one ingredient in innovation (Bharadwaj & Menon, 2000) that is inherent in employees and which, when applied correctly, can lead to innovation (Cokpekin & Knudsen, 2012). In organisations, the creative climate influences the person's personal creativity, the creative process or operation, and the outcome or product (Isaksen, 1984). The better that managers can understand how a creative climate influences decisions, the better they can develop and influence performance within organisations.

### *2.2. Creativity orientation in museums*

In the domain of museums, creativity and the role it plays in such institutions may be perceived in a number of ways (Selwood, 2009). One perspective focuses on the creativity of the museum itself and how the latter may contribute towards change and towards achieving museums' goals. Viewed from such a standpoint, creativity is linked more closely to the notion of museums' creating public value. Museum management should thus be geared towards responding to the demands of the citizens, on behalf of whom such creativity is enacted. As mentioned before, this broad vision of creativity nears the concept of innovation.

Another perspective sees museums as catalysts of creativity in other sectors, prominent amongst which is their role as "guardians" of creative capital and, therefore, vital to its development. Viewed from this particular standpoint, as Selwood points out (2009, p. 229), the core issue would be to "encourage an interest and even a passion for the creative abilities and skills of a high order" and inspire creativity amongst visitors. This study adopts the latter of these two positions and proposes that creativity orientation is the stimulation of human creative capital, in other words, encouraging individuals' capacity to generate new and original ideas in the artistic, scientific, aesthetic or symbolic domains. Creativity orientation in museums involves attracting and fostering artistic and imaginative capacity, curiosity and, in sum, certain individuals' ability to create (artists, scientists). In museums, this entails promoting and producing the activity of artists and researchers, stimulating creation and knowledge and taking a risk on ground-breaking ventures. In museums, encouraging artists' and scientists' creativity may lead to disruptive and radical innovation since it entails committing to new cultural (or entertainment) product options and producing new works and projects for the world. As pointed out by Sandy Naine, former Director of the National Portrait Gallery, (cited in Selwood, 2009, p. 229), "creative risk-taking encourages displays that are controversial, publications that stimulate responses, activities that stretch and challenge the participants, and appropriate

acquisitions and exhibitions that will generate public debate". Moreover, since creativity is a source of novelty and originality it is linked to authenticity, a critical component of a meaningful experience (Lu, Chi, & Liu, 2015; Ram, Björk, & Weidenfeld, 2016). Richards & Wilson (2006) explain that applying creativity to cultural tourism products has the potential to provide genuine experiences and, consequently, authenticity. According to this argument, museum visitors transformed by creative experiences will perceive authenticity, even if the site and the environment are familiar to them.

### *2.3. Innovative visitor experiences in museums*

Pine II and Gilmore (1998, p. 98) define entrepreneurial use of experiences in the following terms: "an experience occurs when a company intentionally uses services as the stage, and goods as props, to engage individual customers in a way that creates a memorable event". In the case of museums, Kotler and Kloter (2000, p. 276) assert that generating experiences involves developing "activities in which visitors can directly participate, intensive sensory perception combining sight, sound, and motion, environments in which visitors can immerse themselves rather than behave merely as spectators, and out-of-the-ordinary stimuli and effects that make museum visits unique and memorable". Mencarelli et al. (2010) state that without altering the core offer (exhibition), there are many peripheral features around the core that may be more readily adapted to facilitate the encounter with visitors (social ties, arousing the senses, the active role of the audience, edutainment, time management, mixed genres, and new technologies). Following on from these ideas, this study focuses on innovative visitor experiences in three areas:

- Adaptation. Pine II and Gilmore (2014) posit customisation as one way of creating experiences and recommend companies to focus on making their offerings as personal and individual as the customer. Yet there are different levels of customisation. Pine II and Gilmore (2014) explain that customising a service turns it into an experience, but that

customizing an experience turns it into a transformation. In the case of museums, the visit can be adapted to each visitor's interests in terms of content, time or proposed activities. A low level of customisation involves offering different routes depending on the time available to the visitor (Joy & Sherry, 2003). Offering alternative guided tours (for children, families, or experts) involves a greater level of adaptation. Eventually, it is even possible to involve the audience in the choice of topics and content in certain exhibitions.

- Interactivity and participation. Visitor interactivity and participation are probably the two most frequently cited aspects in museum literature as ways of generating experiences (Falk and Dierking, 2000). Museums are concerned with encouraging visitors to become active players and to interact as much as possible during the visit. Ingle's (1994) work reports how being able to handle the exhibits, actually touching and feeling them as well as other activities which allow for active participation, had a positive effect on visitor learning. As a result, individuals can be seen as real actors in the museum offer (Mencarelli et al., 2010).
- Technology use. Museums benefit from technological innovations to improve the services and facilities they offer, through virtual material and content, thereby enriching viewers' experiences during their visit. This entails the use of new technologies that have already been tried out in other areas and allows for innovations when presenting the collection and enhancing the services provided to the visitor.

### *2.4. Museums' operating and funding performance*

Museum performance encompasses several aspects (Gilhespy, 1999; Paulus, 2003; Camarero & Garrido, 2008; Camarero, Garrido, & Vicente, 2011). Gilhespy (1999) and Paulus (2003) proposed four dimensions: efficiency, effectiveness, economy, and equity. Efficiency refers to the best possible relationship between inputs and outputs (economic efficiency, output divided by inputs, and social efficiency, the cost of inputs divided by the outputs). Effectiveness refers to the museum's ability to achieve its objectives. Economy refers to the input costs compared

to the planned costs, and equity refers to the distribution of opportunities to benefit different groups (social groups, geographical regions or areas, and future generations).

Other classifications of museum performance focus on effectiveness, that is, on achieving the museum's objectives. In this sense, Camarero and Garrido (2008) distinguish between economic performance, which includes income and funds, visitor numbers or job creation, and social performance, which alludes to the benefits obtained by visitors and society (education, satisfaction, standard of living, or the area's image). Camarero et al. (2011) draw a distinction between social performance itself and market performance. While the former refers to museums' main mission (namely, to spread and foster a positive attitude towards culture and favour research and conservation), the latter refers to visitor perception and evaluation of the museum in terms of satisfaction as well as interest in the museum's activities or reputation.

In the current paper, we focus on the economic dimension and analyse two aspects of museums' economic performance: operating performance and funding performance. Museums' operating performance refers to the increase in visitor numbers and the income generated thereby. Moreover, museums increasingly pursue objectives related to revenue generation (Wilson and Boyle, 2004), that is, funding performance. The need for funding to ensure their viability, mainly in the wake of dwindling public financial support, requires the involvement of donors and sponsors in supporting museums' activities. As will be explained in the next section, these two aspects of economic performance may be influenced by the museum's creativity orientation and by the degree of innovation in visitor experience.

## *3. HYPOTHESES*

### *3.1. Creativity orientation and performance*

In a business context, creativity is related to entrepreneurial orientation, i.e. to five dimensions proposed by Lumpkin and Dess (1996): innovativeness, risk taking, proactiveness, autonomy, and competitive aggressiveness. In this context, creativity has been positively related to

performance. Because of rapid change and short product lifecycle, entrepreneurial orientation and creativity are sources of new opportunities (Rauch, Wiklund, Lumpkin, & Frese, 2009). The empirical literature has underpinned the positive and significant indirect effect of the creativity orientation and innovativeness on organisational performance (Hult, Hurley, & Knight, 2004; Barrett, Balloun, & Weinstein, 2005). In their exploratory research, Barrett et al. (2005) found in two key sectors (health care and education), how the creativity orientation (they refer to creative climate) affects learning orientation and its relationship to organisational performance. Creativity is actually an intangible resource that provides a competitive advantage as well as product differentiation, which improves a firm's performance by enhancing its customer loyalty and satisfaction (Im & Workman, 2004). Hughes and Morgan (2007), however, conclude that the success of entrepreneurial orientation mainly depends on the level of proactiveness and innovativeness.

In cultural industries, the impact of creativity on performance remains unclear. Voss and Voss (2000) analysed the impact of product orientation on firm performance in the theatre industry. Product orientation is a concept akin to creativity, since it refers to seeking and developing innovative new plays. They found a weak association between product orientation and performance in the number of subscribers, although the impact on single-ticket performance and financial performance was not significant. Later, Voss, Montoya-Weiss, and Voss (2006) show that product portfolio innovativeness (in their case, percentage of new-to-the-world plays produced by the theatre) displays an inverted U-shaped association with subscriber ticket revenue, but a U-shaped association with revenue through single tickets. On these bases, we propose that creativity orientation in museums might have a mixed effect on museum performance. While the direct impact on operating and funding performance might be curvilinear, the impact on operating performance could become positive in a setting of innovative visitor experiences.

As regards the impact on funding performance, creativity and innovativeness can act as a magnet for sponsor and donor engagement. A commitment to talent and creative risk should be expected to endow the museum with an image of a prestigious institution, which is at the forefront and is a leader in renovation. Creativity and renewal can surprise and inspire donors and sponsors alike in that they link the museum to an image of talent and new ideas. Benefactor investment is likely to be related to the organisation's ability to innovate. According to Wagner (2002) new donors seek to ensure effective organisation and skilled management. Venture philanthropists show strategic thinking, respect for innovation, and a belief in the values of measurement, accountability and return on investment. As a result, fostering creativity in museums, staging new exhibitions and developing new activities appeal to donors and sponsors in that it allows them to sponsor new ventures and benefit from the innovative image the museum projects.

However, creativity is assumed to be risky. Boeuf, Darveau, and Legoux (2014, p. 36) indicate that one "handicap faced by artistic projects is the perception of inaccessibility and elitism and the assumption that they have little mass audience appeal". As a result, funding by private corporations may prove difficult when sponsors seek the event's visibility. In line with this idea, Chan and Parhankangas (2017) find that crowdfunders tend to be less willing to contribute to radically innovative projects because they are often less comprehensible and less likely to receive consumer feedback. Therefore, we contend that museum funders (donors and sponsors) will value creativity, but that too much investment in innovative yet risky projects, may undermine funder engagement. Thus,

***H1. Creativity orientation has a curvilinear (inverted U-shaped) impact on funding performance.***

Innovations in museums aim to create a fresh discourse by employing a range of resources that seek to increase visitor numbers. As mentioned before, Voss and Voss (2006) found a positive

significant effect of the commitment to innovativeness in theatres and revenue through single tickets, especially in sophisticated marketplaces, namely those more willing to adopt innovations. However, due to their very nature, creative activities are amongst the riskiest of businesses (Pratt & Jeffcutt, 2009c). Although engaging audiences is inherent to creativity, Bergamini, Van de Velde, Van Looy, and Visscher (2017) recognize that novel, experimental or challenging productions do not usually appeal to large audiences. One problem is that artistic creation may not be guided by the audience's taste, but geared towards responding to artistic integrity, authenticity, as well as peer and expert recognition (Shymko & Roulet, 2017). Another problem which characterises creative activities or industries is that a priori it is impossible to say whether or not they will prove to be a commercial success (what will or will not "work") (Pratt & Jeffcutt, 2009c). This is what Caves (2000) terms the "nobody knows" property, which is such a feature of creative products, and entails high levels of risk and uncertainty in relation to audience response and outcomes (Castañer & Campos, 2002). This is linked to the fact that specific tastes for cultural goods and services are cumulative. A person's preference for a particular art form and, therefore, their willingness to consume it is closely linked to their knowledge and understanding thereof (Throsby, 2001). This is acquired through education and experience. Audience risk aversion inclines their preferences towards well-known works or those produced by classical authors whose quality is recognised (Urrutiaguer, 2004). In fact, popular art shows usually attract large crowds, whereas more experimental work draws smaller numbers (Bakhshi & Throsby, 2010). Thus, when committing to creativity, museums may gain visitors, but when introducing too much novelty and experimental works they also run the risk of losing their audiences. As a result, we posit that the effect of creativity on operating performance will be curvilinear.

***H2. Creativity orientation has a curvilinear (inverted U-shaped) impact on operating performance.***

### *3.2. The moderating role of innovative visitor experience*

In line with the service-dominant logic, consumers are always co-creators of value (Vargo & Lusch, 2004). Innovations and the supply of new products and services provided by the enterprise are merely proposals for value which only acquire real value when used. The notion of value-in-use implies that the user controls the experiential value creation process and is the one who experiences value by integrating resources, processes, and outcomes in his or her own social context (Grönroos & Voima, 2013). As Grönroos and Voima (2013) point out, value is accumulated, experienced and perceived by consumers throughout the whole interaction process with the product or service.

Interaction and active participation are situations in which the customer (the visitor) uses or consumes resources that are outputs of the firm's processes (the museum). Since value is created in usage, interactions belong to the customer sphere in order to create value-in-use (Grönroos & Voima, 2013). Therefore, in the context of tourism, tourists may co-create their own experience and become creative tourists (Richards & Wilson, 2006; Tan, Luh, & Kung, 2014).

In museums, as previously mentioned, creativity orientation is a proposal of value for the visitor. Such a proposal for value acquires value-in-use for the visitor when interacting with said services. Yet, to achieve this, proactive management is required on the part of the museum to ensure that the visitor does indeed interact and participate and can really feel a personalised experience. The most creative and avant-garde offer and innovative services (exhibitions, educational or leisure programmes, etc.) must go hand in hand with an experiential proposal if they are really to become memorable experiences that give consumers value, and thus boost audience results. By integrating the possibility of "visitor-actor" into the definition of the museum's overall offer, museum managers can define and organise said offer so that it genuinely allows for such "action" to be taken up by the audience (Kotler, 2003).

Although, as mentioned previously, creativity implies risk vis-à-vis visitor reaction, when museums transmit the offer through interactive, adapted, and technological experiences, the impact on visitors can become positive. Creativity orientation must thus be merged by adopting a more experiential approach on the part of the museum so as to ensure greater audiences. In this sense, Richards and Wilson (2006) maintain that active tourist participation in the creative activities being developed allows them to develop their creative potential and enhance their experiences. In the case of museums, consumer response to various stimuli and experiences has also been studied. Several authors highlight the key role played by emotions and entertainment in visitor learning in museums (Hooper-Greenhill et al., 2004; Mencarelli et al., 2010). For their part, technologies allow for a wider range of services and experiences to be offered to target audiences (Collin-Lachaud & Passebois, 2008) and can therefore attract a wider audience. If new technologies applied to museums can enhance visitor learning, then, technologies in museums may contribute towards securing better results in terms of audience and education (Camarero & Garrido, 2008). Therefore,

***H3. Innovative visitor experience (adaptation-H4a, interaction-H4b, and technology use-H4c) positively moderates the effect of creativity orientation on operating performance.***

### *3.3. Effect of operating performance on funding performance*

Museums face a highly competitive environment (Rowley, 1999). As regards funding, they compete with other museums and organizations for the limited public funding and private contributions available, but also compete in the marketplace for visitors (Johnson & Thomas, 1998). Their audiences are one of their main assets and, when well managed, can generate additional incomes (Johnson, 2003; Mermiri, 2010): visitors not only generate direct funding through tickets and sales, but also indirectly because a wide audience (both in terms of quantity and type) is one of the primary considerations for private contributors when investing in the arts. As for sponsors, taking into account that sponsoring is a promotional tool, like advertising,

and that its effects are proportional to the number of visitors (Frank & Geppert, 2004), museums will show sponsors that it is worth investing in them by evidencing that they have a strong market of visitor numbers (Alcaraz, Hume, & Mort, 2009). Donors, on the other hand, seek other goals, such as maximizing the social and public value of their donations (Andreoni, 1990; Bertacchini, Santagata, & Signorello, 2011). Donors may thus be expected to feel more inclined to contribute to museums that evidence a capacity to spread culture and knowledge and to generate social benefits by attracting large audiences. Therefore,

***H4. Museums' operating performance has a positive influence on funding performance.***

The proposed hypotheses are summed up in Figure 1.

Insert here Figure 1

## 4. RESEARCH METHOD AND RESULTS

### *4.1. Sampling*

A questionnaire was designed to measure museum involvement in creativity as well as results in terms of visitors and donors. Firstly, drawing up the questionnaire required exhaustive analysis of the particularities and evolution of such organisations by consulting news in the press, museum websites, journals specialising in museums and exhibitions together with other secondary sources. Secondly, we interviewed three curators responsible for three different museums: Science and Technology, Fine Arts and History, and Contemporary Arts. The interviews sought to gather information on a range of activities that museums currently engage in to foster creativity, to innovate in what they offer, and to improve the audience's experience. The questionnaire was sent via postal mail to museum curators in France, Spain, Germany, the United Kingdom, and the United States. The domain consisted of 4,800 museums (800 British, 1000 French, 1,300 German, 800 North-American, and 900 Spanish). The questionnaire was translated into the different languages by professional translators in order to ensure equivalence

of measures between languages. In the cover letter, it was indicated that the questionnaire should be completed by the manager or curator. Information was gathered from February to December 2014. The total number of responses collected during the process once incomplete questionnaires had been removed was 556. The museums comprising the sample encompassed various thematic areas. In order to achieve the aims of the current study, we decided to focus on museums that might be more involved in creativity and innovation, specifically, arts (contemporary art, decorative art, fine arts) and science museums (science and technology and natural science). Therefore, the final sample consists of 273 museums, 135 art museums and 138 science museums. Table 1 describes the sample according to the type of museum, the type of funding, and visitor numbers.

Insert here Table 1

### *4.2. Measurement of constructs and validation*

As for the measures of the various concepts, *ad hoc* scales were created based on a review of literature addressing creativity and innovation in museums and cultural organisations, particularly, Bakhshi and Throsby's (2010) report of innovation in arts and cultural organisations. Items were measured on a scale of five points, 1 indicating "Strongly disagree" and 5 "Strongly agree".

*Creativity orientation* is measured by a reflective scale of four items which refer to museum involvement in promoting the work of new artists or researchers, serving as a showcase for their works, producing their works or stimulating the creation of works. These indicators were based on interviews with museum curators, who explained to us that these were the most common ways to foster artists' creativity, and on Bakhshi and Throsby's (2010) definition of innovation in art form development as the creation of new work that at least has the potential to influence artistic trends and perhaps point them in new directions.

Three reflective scales were developed to measure *innovative visitor experience*: adaptation, interaction, and technology use. Adaptation is measured by three items referring to museums adapting visits to visitors' characteristics, time, or preferences. Interaction involves three items indicating the extent to which the museum encourages visitors to interact and participate in the exhibition. Finally, technology use is measured by a two-item scale concerning the museum's commitment to the use of new technologies aimed at visitors. *Operating performance* was evaluated with a three-item scale measuring the increase in the number and diversity of visitors and the increase in sales income over the last three years. *Funding performance* was gauged using a scale measuring the increase in the number of donors and sponsors and the increase in the amount of income through donations and sponsorship. These scales were considered reflective because of the high correlation between the respective items (Petter, Straub, & Rai, 2007).

Table 2 reports the descriptive statistics (means and standard deviations). Scales included in the study are reliable and valid (Cronbach's $\alpha$>0.7; CR>0.7; AVE>0.6). The discriminant validity of the scales used in the present research was also evidenced, since the square root of AVE is greater than the correlation of each scale with the remaining scales (Fornell-Larcker criterion). Table 3 shows the correlation matrix.

Insert here Table 2

Insert here Table 3

Since the sample comprises museums of quite differing sizes, size was used as a control variable. To do this, the sample was divided into two groups depending on the median: large museums, receiving over 24,000 visitors a year, and small museums, receiving fewer than 24,000 visitors. Likewise, the effect of the type of museum was also assessed as a control variable. Specifically, the sample was divided into science museums, those belonging to the

categories of science and technology and natural sciences, and the rest as art and history museums. Finally, the country was introduced as a control variable. As the number of museums representing each country is too small, we compared the responses of museums which have a different tradition in terms of financing arts and culture: those with a tradition of private funding (British and American) versus those with a tradition of public funding (Spanish, French and German).

### *4.3. Results*

In order to test the proposed hypotheses, Partial Least Squares approach (PLS) was used, specifically, *SmartPLS* software (Ringle, Wende, & Becker, 2015). This analytical technique makes it possible to estimate models with formative constructs. The level of statistical significance of the coefficients (both of the measurement and the structural model) was calculated by means of a bootstrapping procedure with 1000 sub-samples. The factorial loadings of each indicator are shown in Table 2. Table 4 shows the PLS path parameters. As regards the explained variance of the endogenous variables, $R^2$ adjusted values were 0.275 for museums' operating performance and 0.323 for museums' funding performance.

Additionally, a path analysis was conducted using the AMOS v20.0 statistical program to check the robustness of our results and to offer a global goodness-of-fit measure. Previously, each variable was reduced to a measurement index, specifically the latent variables scores provided by PLS in order to use similar measures. The results of the estimated model are also shown in Table 3 and confirm an adequate goodness of fit: $\chi^2(22)=69.442$ (p=0.000); RMR= 0.072; RMSEA=0.089; GFI=0.961; AGFI=0.837; CFI=0.942; NFI=0.923.

Insert here Table 4

First, creativity orientation has an inverted U-effect on funding performance, therefore supporting H1. This effect is depicted in Figure 2. Although low levels of creativity orientation

improve funding performance, we see how diminished marginal returns and high levels of creativity orientation have no impact on funding. H2, however, is rejected. The curvilinear effect of creativity on museums' operating performance is not supported. Contrary to our proposal, the effect of creativity orientation on operating performance is always positive. Museum visitors appreciate the experimental and innovative works of present-day artists and creative people, a result that questions creativity's supposed risk and limited capacity to attract audiences (Bakhshi & Throsby, 2010). As regards the interaction between creativity orientation and innovative visitor experience (H3), the significant effects are shown in Figures 3 and 4. The interaction between creativity orientation and visitor interaction has a weak positive effect ($p<0.10$ for AMOS estimation) on operating performance. The effect of creativity orientation on operating performance is greater if the museum invests in improving visitor experience with interactive activities. The interaction between creativity orientation and technology use is also significant, although the effect is negative. Although operating performance is higher when museums use new technologies to enhance visitor experience, the use of technology offsets the effect of creativity on operating performance. The interaction of adaptation and creativity orientation is not significant. Finally, H4 is accepted. Operating performance has a positive impact on funding performance.

Insert here Figure 2

Insert here Figure 3

Insert here Figure 4

As regards control variables, results indicate that the larger a museum, the higher the level of creativity, investment in visitor experience and operating performance. As for the type of museum, creativity orientation and funding performance are greater in art museums. Finally, British and American museums present higher values in creativity orientation, innovative

visitor experience (interaction and technology use), as well as operating and funding performance.

## 5. DISCUSSION

Museums are showing a growing concern with achieving better results in terms of attracting audiences, that is, increased tourist and visitor numbers and diversity as well as the revenues they bring in. Moreover, they pursue other economic goals such as funding performance (securing an increase in funds from donors and sponsors). It might seem rather obvious to state that creativity and innovation in organisations are vital for successful performance (Anderson et al., 2014). But, is it really so evident?

The current paper demonstrates that in order to achieve its economic goals, museum management must turn creativity into value through the necessary tools which ensure visitor interaction and involvement in the exhibition. This study finds evidence to support the positive and significant link between creativity and attracting audiences and museums' revenues. Museums that promote new artists and researchers and that produce and stimulate new projects achieve a wider audience. The challenge is to create products that are both new and valuable for visitors and tourists. In the tourist context, Santagata (2010) also argues that historical and spatial conditions alone are not sufficient requisites for success in cultural and tourism industries. This also entails being able to guarantee a constantly high level of creativity which, in turn, requires a shift in the priorities of public policy-makers and managers, who should play a more active and facilitating role (Bilton, 2016).

Moreover, creativity sends out a signal to donors and sponsors. A museum's investment in talent and new ideas, if it results in wider audiences, will be perceived favourably by potential donors and sponsors, who will thus be more inclined to fund such museums. However, excessive orientation towards creativity will not attract further benefactors. Although the

experimental works of new artists and creative people are reasons to attract funding, there is a saturation point after which the increase in funding is insignificant in relation to the effort made to support these new artists.

Furthermore, in order to increase visitor numbers, a degree of investment in the way the offer is delivered to visitors is required; that is, innovation in creating and providing valuable experiences. The complementarity of creativity orientation and visitor interaction is evidenced. Museums can reach a wider audience and increase revenues if creativity is presented in conjunction with interactive activities. These results are supported by Jelinčić and Senkić (2017) who report three case studies in the museum context and suggest that creative museums which promote interactivity and participation increase visitor numbers. Moreover, adapting to visitors and implementing technological innovations attracts audiences and improves operating performance regardless of the content put into practice by the museum. In fact, although the combined proposal of creative ideas and new technologies is positive, the effect of creativity on operating performance is more visible when the use of technology is low. In short, managers should be actively involved so as to ensure that visitor experience is handled effectively. Indeed, as Bilton (2016, p. 674) posits, management itself becomes part of the creative process, with managers "nurturing, orchestrating and connecting" in this new context.

From a theoretical point of view, this study introduces the concept of creativity as a quality in tourist attractions that provides the basis for innovation and proves key to attracting donor and sponsor interest. Likewise, from the dominant-service logic framework, this paper brings together creativity and tourist experience to gauge how innovation must, perforce, also embrace the tourist. This is not only true when managing or developing ideas but also, and particularly vis-à-vis services, during the various stages of interaction, experience, and with regard to consumer involvement in the service, since this is when the value obtained by the consumer is generated.

### *5.1. Managerial implications*

Even if creativity is considered as a significant ingredient in any successful activity, museum managers cannot concentrate solely on creativity and staging new exhibitions if they wish to be successful. Benefactors are essential for obtaining resources and sustaining a museum's activities. Therefore, excessive orientation towards creativity and risky projects might undermine donor and sponsor interest. Likewise, since attracting larger audiences is necessary if benefactors are to be attracted, the creativity orientation must be appreciated and welcomed by the audience. If a museum offer based on creativity is to produce the best results, it must be accompanied by efficient handling of visitor experiences. In this context, visitor interaction during the exhibition emerges as a key element for cultural organisations since it allows new content and more risky ventures, which are less well understood by the public at large, to be turned into different and ground-breaking experiences, thereby maintaining competitiveness. Museums are places in which people seek experiences (Pallud & Monod, 2010). Thus, if museums redefine the role played by the visitor (from a passive individual to an actor fully involved in the museum's offer) they might increase and broaden their audiences. This implication can be extended to other tourist activities. The development of creative tourism as an extension of cultural tourism (Richards & Wilson, 2006) implies tourist participation as a creative co-creator of the experience (Richards, 2011). Creative destinations should thus provide the adequate tools to enable tourist participation and interaction.

Museums can also use experience as a competitive tool. Museum managers should therefore concentrate on correctly handling the experiences they offer to visitors, adapting the proposed activities to the interests of each visitor in terms of content as well as time, in other words making a commitment to customisation. Managers should also encourage visitors to interact and to get involved as much as possible during the visit by offering all kinds of sensorial experiences through the use of new technologies. Thus, the arrival of third generation

technologies in museums such as simulation and virtual reality experiences, sensorial technologies, 3D reconstructions, interactive applications for mobile devices, use of QR codes in rooms, etc. offers these organisations a vast range of opportunities to enrich visitor experience before, during and after the visit. However, the use of new technologies in a context of innovative and creative exhibitions will not be as effective as in the context of the main or permanent exhibitions.

It should be noted that the most advanced economies have understood the strategic advantage of creative tourism. Creativity is attractive as a policy option for stimulating a range of economic, cultural and social outcomes. As Andersson and Thomsen (2008, p. 42) argue, ‘‘the new integration of culture and business and hence the experience economy are central elements expressing the ‘creative’ turn where culture becomes an instrument for growth and development’’. Furthermore, museums must maximize public value, a value that relates not only to audiences but also to other stakeholders, including living artists (Bakhshi & Throsby, 2010, p. 41). However, in practice, creative changes in museums might be restricted, among other things, by tradition and bureaucratic rules (Frey & Steiner, 2016). Government dependence makes museums conservative. In the typical European model, bureaucratic rules strongly restrict the ability of pure public museum managers to make decisions and they offer little incentive to the directorate to creatively search for additional revenues (Frey & Steiner, 2016). In contrast, as our results show, in the Anglo-American model museums perform better and achieve greater values in creativity orientation and innovative visitor experience, as well as better results in operating and funding performance. Greater museum autonomy and financial independence seem to favour more creative and innovative museums. Governments should therefore give museums greater autonomy and guarantee them greater independence and flexibility to adapt their management to the new demands of visitor and tourist experiences. In this sense, Santagata (2010) points out that governments should realize that focusing on

creativity requires a transition from policies designed merely to conserve culture (protection, restoration and management) to policies designed to produce culture.

### *5.2. Limitations*

Several limitations of this study should be pointed out. First, data are taken from a single source. Museum curators have a global perspective towards the prevailing philosophy in museum management and the innovations implemented. Further, it is difficult to find another kind of staff member or employee common to all museums, particularly in the case of small museums. Likewise, the services offered to visitors to improve their experiences (interaction, adaptation, and technology) are assessed from the manager's viewpoint. It might be interesting to supplement this research among practitioners by making a parallel analysis of the practices and opinions of visitors themselves. By quizzing the public about their expectations, motivations, and consumer experiences, visitor reaction to creativity and experiential activities might be observed. Further research could complete survey data with information collected from secondary sources (e.g. annual accounts) to improve the robustness of the analysis. Moreover, it may be of interest to observe operating performance as separate constructs (number of visitors, profits from visits, visitor satisfaction, etc.).

Second, the sample is not balanced by countries. The response was lower in American and British museums. We should therefore exercise caution when attempting to generalise the findings to museums overall. Since these countries represent different cultural public policies, as a future line we propose analysing the funding model as a determinant of creativity and innovation.

Finally, the research focuses on a specific context, museums. The analysis could be extended to understand the role of creativity and innovation in visitor experience in different tourist attractions.

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**Figure 1.Proposed hypotheses**

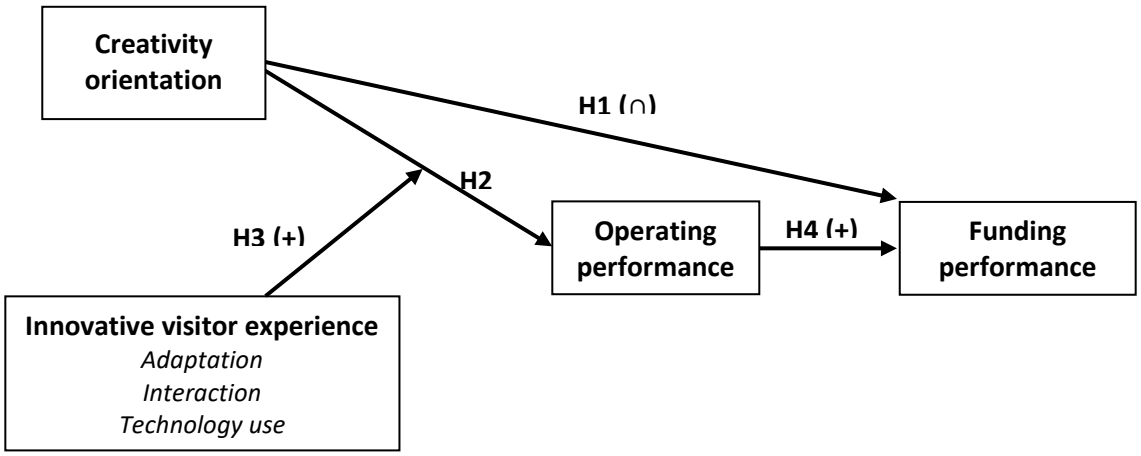

Table 1.Sample description

| | **Total** *(273)* | **Spain** *(80)* | **France** *(79)* | **UK** *(33)* | **USA** *(21)* | **Germany** *(60)* |
|---|---|---|---|---|---|---|
| **Type of museum** | | | | | | |
| Arts | 49.5% | 66.3% | 55.7% | 27.3% | 47.6% | 31.7% |
| Sciences | 50.5% | 33.8% | 44.3% | 72.7% | 52.4% | 68.3% |
| **Type of funding(*)** | | | | | | |
| *Public funding* | | | | | | |
| Up to 25% | 17.3% | 15.3% | 4.2% | 21.2% | 61.9% | 17.3% |
| 26-50% | 9.6% | 9.7% | 2.8% | 15.2% | 28.6% | 7.7% |
| 51-75% | 7.6% | 4.2% | 5.6% | 21.2% | 4.8% | 7.7% |
| More than 75% | 65.5% | 70.8% | 87.3% | 42.4% | 4.8% | 67.3% |
| *Private funding* | | | | | | |
| Up to 25% | 88.4% | 88.9% | 98.6% | 87.9% | 38.1% | 94.2% |
| 26-50% | 6.8% | 4.2% | 0% | 6.1% | 47.6% | 3.8% |
| 51-75% | 0.8% | 1.4% | 0% | 0% | 4.8% | 0% |
| More than 75% | 4.0% | 5.6% | 1.4% | 6.1% | 9.5% | 1.9% |
| *Own funding* | | | | | | |
| Up to 25% | 75.1% | 80.6% | 91.5% | 63.6% | 23.8% | 73.1% |
| 26-50% | 11.6% | 6.9% | 4.2% | 18.2% | 42.9% | 11.5% |
| 51-75% | 7.6% | 6.9% | 2.8% | 9.1% | 33.3% | 3.8% |
| More than 75% | 5.6% | 5.6% | 1.4% | 9.1% | 0% | 11.5% |
| **Number of visitors** | | | | | | |
| Up to 5,000 | 17.8% | 22.5% | 18.4% | 12.5% | 10.8% | 19.0% |
| 5,001 to 10,000 | 14.0% | 16.9% | 21.1% | 3.1% | 0.0% | 12.1% |
| 10,001 to 50,000 | 35.3% | 33.8% | 43.4% | 21.9% | 19.0% | 39.7% |
| 50,001 to 100,000 | 15.1% | 11.3% | 10.5% | 25.0% | 23.8% | 17.2% |
| More than 100,000 | 17.8% | 15.5% | 6.6% | 37.5% | 52.4% | 12.1% |

(*) Information provided by 249 museums of the sample.

Table 2. Measurement of variables and descriptive statistics

| | Mean | S.D. | Loadings |
|---|---|---|---|
| **Creativity orientation** *(α=0.796; CR=0.871; AVE=0.630)* | | | |
| The museum offers specific services of value for artists and creative persons | 2.74 | 1.37 | 0.788 |
| We serve as a showcase for artists or researchers to put on exhibitions of their work in the museum | 2.62 | 1.36 | 0.638 |
| We produce works by present-day artists and creative persons | 2.23 | 1.45 | 0.867 |
| We stimulate the creation of works for specific areas in our museum | 2.24 | 1.37 | 0.791 |
| ***Interaction*** *(α=0.844; CR=0.921; AVE=0.795)* | | | |
| Visitors are encouraged to take part in and interact in the activities proposed | 3.21 | 1.22 | 0.807 |
| We try to make visitors become active participants in the exhibition | 2.46 | 1.26 | 0.894 |
| We employ a range of techniques to involve visitors during the exhibition | 2.80 | 1.24 | 0.911 |
| ***Adaptation*** *(α=0.760; CR=0.874; AVE=0.699)* | | | |
| We adapt visits to visitor characteristics (children, groups, etc.) | 4.05 | 1.04 | 0.792 |
| Various tours are offered depending on the time available to the visitor | 3.20 | 1.39 | 0.815 |
| The guided tour routes vary depending on visitor preferences | 3.20 | 1.42 | 0.849 |
| ***Technology use*** *(α=0.786; CR=0.916; AVE=0.845)* | | | |
| The museum is committed to the use of new technologies to enhance visitor experience in the museum | 3.03 | 1.32 | 0.903 |
| The museum is a leader in the use of new technologies aimed at visitors | 1.97 | 1.19 | 0.908 |
| **Museums' operating performance** *(α=0.639; CR=0.817; AVE=0.600)* | | | |
| *Over the last three years…* | | | |
| The number of visitors per year has increased | 3.40 | 1.36 | 0.650 |
| A wider audience has been achieved | 3.62 | 0.96 | 0.785 |
| There has been an increase in commercial revenue (ticket sales, gift shop, ...) | 2.85 | 1.34 | 0.799 |
| **Museums' funding performance** *(α=0.853; CR=0.937; AVE=0.832)* | | | |
| *Over the last three years…* | | | |
| The number of donors and sponsors has increased | 2.78 | 1.36 | 0.807 |
| There has been an increase in the total amount of income through donations | 2.50 | 1.37 | 0.896 |
| There has been an increase in the total amount of income through sponsorship and patronage | 2.20 | 1.27 | 0.873 |

Table 3. Correlation matrix

| | *(1)* | *(2)* | *(3)* | *(4)* | *(5)* | *(6)* | *(7)* | *(8)* | *(9)* |
|---|---|---|---|---|---|---|---|---|---|
| *(1) Creativity orientation* | *0.794* | | | | | | | | |
| *(2) Adaptation* | 0.249 | *0.836* | | | | | | | |
| *(3) Interaction* | 0.449 | 0.391 | *0.892* | | | | | | |
| *(4) Technology use* | 0.299 | 0.198 | 0.426 | *0.919* | | | | | |
| *(5) Operating performance* | 0.340 | 0.207 | 0.331 | 0.356 | *0.775* | | | | |
| *(6) Funding performance* | 0.296 | 0.115 | 0.208 | 0.284 | 0.528 | *0.912* | | | |
| *(7) Size* | 0.239 | 0.042 | 0.276 | 0.302 | 0.396 | 0.264 | *n.a.* | | |
| *(8) Type of museum* | -0.150 | -0.070 | 0.054 | 0.085 | 0.005 | -0.116 | 0.015 | *n.a.* | |
| *(9) Country* | 0.279 | -0.096 | 0.377 | 0.277 | 0.296 | 0.303 | 0.312 | 0.142 | *n.a.* |

(*) Diagonal elements show the square root of the AVE. n.a.- Not applicable.

Table 4. Path parameters

| | PLS estimation | | Path analysis estimation | | Hypotheses |
|---|---|---|---|---|---|
| | *Estimate* | *P-value* | *Estimate* | *P-value* | |
| *Size** →*Creativity orientation* | 0.162 | 0.004 | 0.164 | 0.006 | *Control* |
| *Size* →*Adaptation* | 0.078 | 0.236 | 0.078 | 0.216 | *Control* |
| *Size* →*Interaction* | 0.177 | 0.004 | 0.178 | 0.002 | *Control* |
| *Size* →*Technology use* | 0.243 | 0.000 | 0.240 | 0.000 | *Control* |
| *Size* → *Operating performance* | 0.249 | 0.000 | 0.253 | 0.000 | *Control* |
| *Size* → *Funding performance* | 0.016 | 0.795 | 0.016 | 0.772 | *Control* |
| *Type of museum*** →*Creativity orientation* | -0.185 | 0.001 | -0.192 | 0.000 | *Control* |
| *Type of museum* →*Adaptation* | -0.054 | 0.432 | -0.056 | 0.356 | *Control* |
| *Type of museum* →*Interaction* | 0.006 | 0.920 | 0.006 | 0.918 | *Control* |
| *Type of museum* →*Technology use* | 0.053 | 0.373 | 0.054 | 0.348 | *Control* |
| *Type of museum* → *Operating performance* | 0.003 | 0.960 | 0.003 | 0.956 | *Control* |
| *Type of museum* → *Funding performance* | -0.125 | 0.012 | -0.133 | 0.009 | *Control* |
| *Country**** →*Creativity orientation* | 0.250 | 0.000 | 0.259 | 0.000 | *Control* |
| *Country* →*Adaptation* | -0.110 | 0.125 | -0.114 | 0.075 | *Control* |
| *Country* →*Interaction* | 0.314 | 0.000 | 0.326 | 0.000 | *Control* |
| *Country* →*Technology use* | 0.192 | 0.003 | 0.195 | 0.001 | *Control* |
| *Country* →*Operating performance* | 0.121 | 0.045 | 0.126 | 0.041 | *Control* |
| *Country* → *Funding performance* | 0.164 | 0.005 | 0.174 | 0.002 | *Control* |
| *Creativity orientation* → *Funding performance* | 0.116 | 0.059 | 0.119 | 0.034 | - |
| *Creativity orientation squared* → *Funding performance* | -0.085 | 0.060 | -0.107 | 0.043 | H1 |
| *Creativity orientation* → *Operating performance* | 0.142 | 0.022 | 0.143 | 0.019 | - |
| *Creativity orientation squared* → *Operating performance* | 0.023 | 0.686 | 0.028 | 0.665 | H2 |
| *Adaptation* → *Operating performance* | 0.115 | 0.099 | 0.116 | 0.045 | - |
| *Interaction* → *Operating performance* | 0.041 | 0.540 | 0.041 | 0.539 | - |
| *Technology use* → *Operating performance* | 0.167 | 0.002 | 0.172 | 0.003 | - |
| *Creativity *Adaptation* → *Operating performance* | -0.064 | 0.314 | -0.067 | 0.268 | H3a |
| *Creativity *Interaction* → *Operating performance* | 0.098 | 0.116 | 0.114 | 0.097 | H3b |
| *Creativity *Technology use* → *Operating performance* | -0.115 | 0.019 | -0.139 | 0.017 | H3c |
| *Operating performance* → *Funding performance* | 0.442 | 0.000 | 0.449 | 0.000 | H4 |

(*) 0=Less than 24000 visitors; 1=More than 24000 visitors
(**) 0=Art; 1=Science
(***) 0=France, Germany, or Spain; 1=United Kingdom or United States