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Master Thesis

The Audience Experience in Immersive Art Spaces

How are immersive art displays perceived as cultural experience goods? What are the implications for museums?

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Abstract

Since the late 20th century, the traditional practices and roles of the established art world have experienced a major shift. The emergence of technology and the growth of commercialization are introducing new ways of displaying and consuming art, that are challenging the 'white cube' ideal and emphasize on the economic value of experience. At the same time, the 'experience economy' creates new needs to a diverse art audience, to which the museum exhibition environment needs to respond. Under those circumstances, art spaces and museums are challenged to re-conceptualize their role by bringing individuals in the center of curatorial attention and being market-oriented, while having social and political relevance.

Among the innovative changes of art spaces, the digital, immersive art displays are considered to generate intellectual and emotional stimulation in a unique and distinct exhibition environment. Taking this into consideration, this study aims to explore immersive art displays as cultural experience goods that can engage visitors and facilitate future museums in the provision of 'experience services'. After conducting a quantitative analysis of 287 surveys regarding the individual visitor experience in three immersive art exhibitions, the study proved that immersive displays were perceived positively, they successfully met different expectations and they stimulated 'leisure learning' through escapist experiences that motivate individuals to re-visit again in the future.

Reflecting the analysis in a post-museum context, it is implied that the immersive displaying practices could be used to address different consumption patterns and increase current, as well as future demand, while shaping tastes and conceptualizing the cultural value of the institution. Aiming for inclusiveness, participation and omnivorousness, the immersive museum experiences would also fit in a democratic context that allows diversity, active participation and meaning-making practices in the exhibition environment.

Keywords: immersive art, digital displays, museums, exhibition design, experience economy, visitor experience, democratization, post-museum

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1. Introduction

"A gallery is constructed along laws as rigorous as those for building a medieval church. The outside world must not come in, so windows are sealed off. Walls are painted white. The ceiling becomes the source of light. (…). Unshadowed, white, clean, artificial-the space is devoted to the technology of esthetics."

(O' doherty, 1976, p. 15)

The spatial elements of the exhibition environment have always been significant for displaying practices and art experiences. The transition from the 19th century 'white cube' to the postmodern art movements of installation, as well as the digital innovations that emerged in artistic practices, have re-conceptualized the exhibition environment, posing both opportunities and challenges. In the postmodern art space, the viewer becomes the center of curatorial attention and the individual experience is regarded as a dynamic process influenced by emotions, personality traits and social factors. In addition to that, the growth of commercialization and the blending of 'high' with 'popular' culture, have resulted in the dominance of an experience economy, in which consumers value and are willing to pay for experience-stimulating activities (Soares & Simao, 2019).

As a result of the aforementioned conditions, the immersive art displays emerge to engage visitors through a multi-sensory, digital exhibition environment that goes beyond physical space and allows individuals to be active participants in their experience emotionally and intellectually (Dziekan, 2012). In that sense, the visitor's perspective is the key for understanding immersive digital displays as cultural experience goods that can successfully address demands of diverse audiences who seek for more than purely aesthetic experiences when entering an art space. Considering also that cultural consumers are highly driven by tastes and broader socioeconomic influences, the economic value of immersive art displays can be addressed in relation to the 'behavioral' nature of demand in the arts and the need for art spaces to become market-oriented and acknowledged as leisure activities (Falk, 2016).

Reflecting the radical changes of the late 20th century art space on an institutional level, the re-conceptualization of the museum exhibition environment should also be addressed. As the 'white cube' realm faded away, museums were challenged to shift their role from 'cultural memory banks' to 'multimedia' environments that are market-oriented and designed with a visitor-centered approach (Dean, 2002). This changing role is necessary, not only to respond to the postmodern ideal

of an inclusive museum that offers active spectatorship and knowledge, but also to the new economic and digital realities (Marstine, 2008). In the realm of experience economy, the visitors-consumers choose to engage with art spaces, as long as their different needs and tastes are met during their visit. That being said, the 21st century 'post-museum' is required to address its social and political relevance while being an economic agent that can shift cultural consumption patterns and maximize audience attendance (Fernandez & Pietro-Rodriguez, 2011).

Consequently, cultural economists need to address the dual challenge of creating innovative museums and art spaces that compete with leisure activities in an experience-oriented market, while still maintaining a socially relevant exhibition environment that invites diverse audiences and disseminates knowledge. Taking this challenge as a starting point, the purpose of this study is to facilitate cultural economists in their effort to sustain visitor engagement. Having noticed the potential of digital immersive art environments to create unique gallery spaces, the research aims to explore immersive art displays as cultural experience goods that can successfully address the demand for 'experiences' and engage individuals with visiting art spaces in the future.

By examining the role of immersive displays as economic tools that shift demand through the provision of sensory experiences, important observations can be generated regarding museum engagement. Specifically, the immersive experience can be discussed in the post-museum context to acknowledge the potential implementation of immersive displaying practices that create an 'active' museum environment that fits in the experience economy realm and addresses the needs of diverse visitors-consumers. Considering both an economic and a democratic approach, the immersive museum space can also be addressed for its social and institutional relevance, as a dynamic environment where individuals can equally participate and construct their own meaning (Bal & Bryson, 2013).

Taking the above into account, the research aims to demonstrate the relationship between digital immersive art displays and the individual visiting experience in order to facilitate the discourse regarding engagement with museums. The accumulation of such data seems important for maintaining an overall effective and meaningful creative sector that recognizes current opportunities and challenges. Hence, this research aims to provide empirical evidence that can be used in a cultural economic context to address the aforementioned issues.

To achieve this, the study is structured in a coherent way that frames and defines all of the examined concepts. To be more precise, in the first chapters, the theoretical framework will provide an overview of the evolutionary process of exhibiting in art spaces and museums, under which the current displaying opportunities and challenges were born. Both the ideological and economic consequences of the transition from the 'white cube' to the immersive art space, as well as the 19th

century art museum to the multimedia museum, will be highlighted and provide a contextualized perception of the issues that will be examined later on.

Following that, the notion of experience will be defined on the basis of theoretical models that illustrate the different factors and dimensions influencing individuals when ‘being’ in an exhibition environment. In order to address the value of immersive art displays as cultural experience goods, experience will also be analyzed in relation to the economic concepts of cultural consumption and demand n the arts. The sufficient understanding of the economic theories that underline the choices of cultural consumers will provide an essential framework for discussing the empirical results and implications that will be generated from the study.

Apart from that, a broader democratic approach will be given to cultural consumption and exhibiting experiences, in order to address the value of immersive art displays in accordance with the institutional role of art spaces to be inclusive, social environments. Specifically, a democratic cultural sector will be discussed regarding the satisfaction of diverse consumers through the provision of active participatory experiences and meaning-making practices that potentially contribute to a culture of omnivorousness. This sociological perspective of demand in the arts will be valuable for addressing immersive practices in museums and understanding how their economic value is generated under the greater social and art historical change that was sketched.

The aforementioned concepts will provide the theoretical foundations on which the research questions and hypothesis were formulated and the empirical analysis was achieved. A further, more detailed description of the research method will provide insight into the analytical tools, design and sampling decisions that were followed by the researcher. In addition to that, the research implementation will be analyzed in relation to the theoretical framework, as well as empirical tests of SPSS survey analysis. Specifically, the ‘visitor perception’ of three immersive art exhibitions will be examined in terms of overall satisfaction, personal and social influences, as well as the different experience realms.

The results of the individual visiting experience will then generate a discussion concerning the economic value of immersive art displays as cultural experience goods and their potential adoption in the post-museum context for addressing demand and achieving a social role. In that sense, the conclusions of this study will not only answer the primary research questions but, more importantly, will motivate a fruitful conversation concerning current issues in museum studies and the potential of museums to evolve under the constantly changing digital, economic and social conditions.

2. Theoretical Framework

In this chapter the main theoretical framework that drives the research will be defined. Combining elements both from a cultural economic and a sociological perspective, the immersive art displays will be understood in relation to the experience economy, post-museology and cultural democracy. Based on the theoretical foundation, a set of hypothesis will be formulated in order to be tested in the further quantitative analysis, and indicate the implications that will be derived from it.

2.1. Art Spaces

2.1.1. The 'white cube' model

The elements of physical space have always been significant in the establishment of art museums and galleries. According to O'Donnell (2016), the space of the exhibition involves an interplay between the building, the curatorial program presented in the spatial construct, as well as the visitor's actual use of the gallery. In that sense, the environment of an art space goes beyond the physical display of artworks, integrating elements of people, materials, time and character (Kaprow, 1958). However, perceiving art spaces as active environments in which visitors have an important role, has not always been the case. It is rather the late 20th century that seems to define art spaces as social environments reflecting historic and cultural influences. In fact, it is argued that the art history of the 20th century is not a history of artworks, but a history of exhibitions (Vogel, 2016). Hence, it is first necessary to examine how art spaces, experiences and audiences have evolved.

To begin with, in the origins of art spaces, a rather dichotomous nature can be observed. A clear hierarchical distinction is drawn, not only between the viewer and the displayed object, but also between 'fine' and 'popular' arts (Alexander & Bowler, 2014). Taking as a starting point the end of the 17th and beginning of the 18th century, a growing interest around art, both by the government and individuals of the intellectual cycles, can be observed. Initially, the literary public of the 17th century exclusively consisted of collectors and connoisseurs that made artistic judgments and determined quality and aesthetic values (Hauser, 1999). It was only after 1673 that art exhibitions were arranged regularly, attracting academics that were not solely interested in buying artworks and led to the dominance of a middle-class art public in the 18th century plastic arts. It was at that time, that the ideas of the Romantic movement (1800-1850) started to emerge, celebrating

the individual artistic expression as the only unique practice, by which art is sacred and the artist is a creative genius making 'art-for-art's-sake' (Abbing, 2002).

Romanticism certainly held an important role and represented a turning point in the history of art. Following the ideas of individualism, uniqueness and exclusivity, the 19th century avant-garde shared their own notions of art and authenticity, deciding what is considered as 'real' artwork, as well as, who has the legitimacy to produce and consume art. Works of art, from that perspective, were not only creations of individual artists, but also joint products of the art world (Becker, 2008). This is certainly reflected in the process of displaying collections which were transferred directly from the artist's studio to a church, a bourgeoisie home or a palace, aiming to satisfy the social elite (Carrier & Jones, 2016). Consequently, anything that belonged within the art world would fall into the category of fine art, with depth, complexity and intellectual qualities, aiming to elevate the viewer. In contrast, art that was widely accessible and entertaining, or else 'popular', was perceived as simple, lower quality and inauthentic.

The aforementioned distinction between 'art for the elite' and 'art for the public' was also manifested in the exhibition design and consumption patterns. Specifically, the traditional gallery space was static and operated as a form of reduction (Wigley, 2016), in a way that every physical detail set up to magnify the art on display, reduced the individual to the role of the viewer. By only being able to look and not touch, the gallery produced an optical frame that isolated the subject from the object physically and conceptually. At the same time, as Bourdieu (1985) argues, during the 19th century, *"the higher-class art society isolated itself in an aura of indifference and rejection towards the large-scale cultural production"*, that is, cultural goods that are destined for the public at large (Bourdieu, 1985, pp. 5).

Consequently, galleries and art spaces were forbidding and intimidating for the public majority due to boundaries of social status, dress code, education, art knowledge and economic power (Alexander & Bowler, 2014). These barriers not only excluded individuals from entering established art spaces and consuming art, but also affected curatorial practices which, ideologically frame the encounter between art and its public (Skrubbe, 2016). In that sense, a clear hierarchical distinction was drawn between 'high' and 'popular' art consumption. Having said that, it is apparent that the gallery's environment is more than a place for displaying art objects, it is rather a powerful manifestation of power relations, perceptions and expectations society places on art (Dziekan, 2012).

By the late 19th and early 20th century, this realization became stronger and modernism emerged as a reaction to the past, spiritual order and tradition. The revolutionary thought in the form of innovation and progress became synonymous with modern art movements, Futurism and

Cubism (1905-1920) being the first manifestations of that thought. It was however only in the late modernism, when the revolutionary innovations actually changed practices of displaying and experiencing art. O'doherty (1999) argues that, for the most part, the history of modernism is framed by space and the way we experience it in an artistic context. He believes that the 20th century hierarchical art norms were translated into gallery laws devoted to linear, static aesthetic experiences and he uses the term 'white cube' to frame all the traditional elements that were associated with art spaces in the 20th century.

"We have now reached a point where we see not the art but the space first. An image comes to mind of a white ideal space, that, more than any single picture may be the archetypal image of the twentieth century art. The ideal gallery subtracts from the artwork all cues that interfere with the fact that it is "art". The work is isolated from everything that would detract from its own evaluation of itself...The white cube (…) as a ritual place of meeting, censors out the world of social variation, promoting a sense of the sole reality of its own point of view." (O'doherty, 1999, p.14)

The white cube realm is probably the best to describe and summarize the hierarchical and static gallery environment that dominated in the 20th century. Thus, when referring to the white cube, a formal, neutral art setting is implied, in which visitors walk silently and observe from a distance. It is an art space that carries a certain status and responds to the demand of visitors that also have a status themselves (O' doherty,1999). Bennett (2006) uses the term 'educated citizen' to portray the formal behavioral set in the white cube environment, as well as the stereotypical profile of white cube visitors that are usually associated with higher social and economic status, educational backgrounds and sufficient art knowledge. Considering that the art space can be a reflection of social and cultural circumstances, the white cube is certainly a manifestation of dominant art norms and hierarchical distinctions.

As it will be discussed further, the late 20th century postmodern art movements and the emergence of technology and installation, created new circumstances under which the aforementioned hierarchical notions of displaying, experiencing and consuming art, were actively transformed (Reiss, 2001). In addition to that, the growth of the experience economy and commercialization posed new demands and played a major role in changing existing consumption patterns. Nonetheless, to this day, the white cube art-setting is often regarded as the only way to present and experience art, particularly on an institutional level.

2.1.2. Exhibiting in Art Museums

In the same way that the exhibition, as a format, changed under the different social, cultural and artistic circumstances, art museums also experienced radical reinterpretation (Hansen, 2011). It is observed that, from their origins to the recent years, museum galleries and exhibiting practices mostly fit into a white cube model and are perceived as prestigious places where a few can enter, aiming for learning rather than entertainment. Miles (1986) refers to this as the 'scholarly perception', which portrays museum environments as formal, scientific places that require specific codes of behaviors. Similarly to the white cube realm, the dominance of such perception seems to be rooted in art norms and old-fashioned institutional purposes.

On the one hand, the birth of the museum resulted from the need to create 'cultural memory banks', to display information that have historic value for the global community (Dean, 2002). Taking this need into account, museums emerged as spaces for displaying private collections of scientists, travelers and explorers on behalf of the monarch (Towse, 2010). It was, however, by the end of the 18th and beginning of the 19th century, that a broader public had access to royal collections and the museum acquired its form as we know it today. In that sense, Bennett (1995) argues, the museum occurred as *"a new space of representation which, in providing a new context for display of the valued objects inherited from previous collections, allowed those objects to be harnessed to a new social purpose"* (Bennett, 1995, p. 25).

Therefore, the core institutional role of museums was to harness space as an access point to collections, that previously belonged to and were experienced by a royal minority. Through exposing collections to the public and providing educational experiences, museum exhibitions were used to satisfy the higher institutional mission of creating a social platform for displaying and experiencing art, while gaining public's trust as a communal tool of knowledge distribution (Dean, 2002). From this point on, the educational role of museums has become the foundation that justifies their existence and regards knowledge as a commodity they offer to society (Hooper-Greenhill, 1992). In addition to that, the 19th century bourgeois public sphere, along with the government's growing interest in museums as cultural resources, established their association with nation-building projects, along with educational and moral functions (Bennett, 1995; Hansen, 2011).

What is more, the 19th century 'exhibitionary complex', consisting of the institutions involved in the transfer of collections to a broader public, revealed the disciplinary and power relations of its era (Bennett, 2005). The dominance of high culture was reflected to museum exhibiting practices, which enforced the dichotomy between 'popular' and 'fine' arts and associated museums with a purely aesthetic and educational function aiming to elevate public taste, rather than

satisfy entertaining or commercial interests (Prentice et al., 1997). Under those power relations "*what may be viewed, how it should be seen, and when this is possible"* in museums was based upon the collecting subject (Hooper-Greenhill, 1992, p.7).

In other words, the museum gallery of the late 19th and early 20th century was curated with the intent to look but not touch and the visiting behavior was static and formal, while individuals were required to be silent, walk slowly and move in a particular way in front of the exhibits (Wigley, 2016; O'Donnell, 2016). This set of behavioral rules, as well as the formation of space in a way that forbids interaction with displays, perpetuated the idea that museum visitors need to be dedicated to learning and to have α background allowing them to respond to a high level of scholarship exhibited during their visit (Miles, 1986). This 'scholarly perception' of museums affected visiting motivations and attracted specific audiences, thus, creating specific consumption patterns.

To be more precise, frequent museum-goers were more likely to come from an upper-income social status, have formal education and shared ideological, material, cultural and social relationships (Coffee, 2007). Their 'prior experience and knowledge' was a key indicator for their engagement and expressed a deep interest in the subject matter of the art institution (Falk, 2016). In contrast, individuals from lower social classes and without educational or art-related knowledge background, were not motivated to visit and were, for the most part, absent from museum consumption. This distinction showcases a rather contradictory function of museums as elite temple of the arts on the one hand, and communal instruments for social representation and education on the other (Bennett, 1995; Hooper-Greenhill, 1999).

Overall, the formal character of the museum exhibiting environment, promoted the idea that museums can only be enjoyed by specific audiences, interested and knowledgeable in the displayed content, with a higher social and economic status. At the same time, the linear way of learning within museums, due to the lack of participation by the viewer, excluded individuals who were seeking for entertainment and interactive experiences. Moving away from the 20th century and coming to the recent years, the museum as a white cube is still a perception that can affect visiting behaviors and demotivate individuals from visiting museums in the first place. Thus, the white cube as the ideal gallery environment, not only reflects the hierarchically divided art world, but also shapes behaviors and consumption patterns accordingly, perpetuating the stereotype of an exclusive and static museum visit that can only be enjoyed by a few 'educated citizens' (Bennett, 2005, 2006).

As it will be analyzed below, the postmodern art movements of the late 20th century and the new realm of a digital, interactive exhibition environment, create new circumstances under which, meaning and knowledge is achieved, while a dynamic relationship between museums and people is

reflected in collections, exhibitions and curation (Vergo, 1997; Clough, 2013). With the growth of commercialization and technology, the distinctions between fine and popular art became more blurred, placing the individual visitor-consumer in the center of curatorial attention. The effort of museums and art spaces to adapt to technological changes by becoming audience-centered and recognizing their part in the leisure industry, create both opportunities and challenges.

2.2. Technology & Art Displaying

2.2.1. Immersive Art Spaces

Technology played an essential role in the 20th century art and supported the effort of artists to elevate the viewer's experience by integrating innovative elements into their works and displaying methods (Ruddle et al., 1996). Viewing the exhibition space as an interrelationship between the visitor, the artifact, the gallery space and the museum (Dziekan, 2012), the postmodern approach emerges as an opposition against the white cube ideal. O' doherty (1999) highlights that in the 1950s and 1960s, the neutral walls of the white cube, became active and reflected ideologies, attitudes and new developments (O'doherty, 1999, pp. 29). In addition to that, the technological innovations and the growth of commercialization in the recent years, created new needs and demands for a 'multimedia' visiting experience that can be accessed by diverse audiences (Davis et al., 1996).

To begin with, under the technological and social changes of the late 20th century, a shift from exhibition to installation, changes the relationship between the viewer and the artwork and, consequently, the overall atmosphere of art spaces (Kaprow, 1958; Reiss, 2001). The installation art wave of the 1960s transforms physical space by bringing the visitor's sensory experience in the foreground and giving them the necessary context to interpret the displayed objects (Mitchell, 2010). As the physical properties of the exhibition environment become part of the artwork, a transition from 'visual' to 'spatial' arts integrates technological innovations in practices and exhibition design by exploring techniques, including display, lighting, communication, color and graphics (Summers, 2003; Skramstad, 2007).

From the 1970s on, installation artists explored the desire to experience constructed realities by using digital technology to create complex aesthetic experiences merging the physical with the virtual (Mitchell, 2010). This technological character of exhibition-making combines both discursive and immersive elements that transform the white cube gallery space and provide a new context in which art can be consumed and experienced. Immersion is considered to play a major

role in achieving this goal, as it implies the mental absorption, emotional engagement and sensory stimuli that can be evoked in digital, interactive environments (Grau, 2003).

Specifically, the immersive art displays are defined as multimedia means *"representing a loss of subject/object spacing by using the language of the multi-sensory as opposed to the language of vision, they embrace all senses and create a space where visitors feel detached enough from the world to reflect upon the world"* (Wigley, 2016, p. 2). They can range from floor-to-ceiling wall displays, interactive screens, moving images, lighting and sounds, to computer games and virtual reality. When placed in an exhibition design, they provide an informative context that allows visitors to be active in the sense of understanding, interpreting and being emotionally involved in the displayed artworks (Davis et al., 1996).

Therefore, when visitors are surrounded by immersive displays, they become participants in their experience physically, mentally and emotionally. Because of the increased emotional engagement, a meaning-making process takes place as visitors generate their own interpretation and understanding (Bal & Bryson, 2013). That being said, the discursive exhibition design indicates a non-linear way of learning, by which reflection and intellectual stimuli is achieved (Tharp & Tharp, 2019). Consequently, the combination of immersive and discursive elements, not only achieves cognitive understanding, but also provides a subjective character to learning, under the influence of different feelings and emotions that are generated (Charman, 2016).

It is apparent, that the immersive display system allows interaction and supports cognitive capabilities with sensory stimulation, hence, evoking unusual experiences and perceptions in the art space (McRobert, 2007). Under those circumstances, the idea of a neutral exhibition space is slowly fading away and the white cube model is regarded inefficient for maintaining audience engagement. Opposed to the static way of observing and knowing in the white cube, the digital art space allows participation and active learning, changes the relationship between the viewer and the artwork and is curated with a focus on the individual experience (Reiss, 2001). For this reason, the immersive multimedia experience is often perceived as one of the strongest forms of engagement (Soares & Simao, 2019).

Considering this statement, the first hypothesis that can be formed and will be tested later on, implies that visitors in an immersive art environment are overall satisfied from their visit because of the engaging experience they are offered. Thus, the hypothesis can be stated as follows:

H1: Visitors in immersive art exhibitions are overall satisfied from their visiting experience.

Comparing the new media art space with the white cube model, important realizations emerge for consumption and visiting patterns. While the visitors of the white cube were required to fit into an upper social and economic class that is educated, has art knowledge and taste for 'high'

culture, the immersive art environment is addressed to diverse audiences and experiences. This not only implies different economic or social backgrounds, but also different tastes, habits and motivations for experiencing art. In other words, a more diverse cultural capital, which encompasses the different elements of style, taste, intellectual capabilities, as well as social and economic power of individuals (Bourdieu, 1986), seems to be apparent in the immersive digital art space.

As it will be discussed in the next chapters, the immersive art spaces as a new type of cultural experience good, can influence cultural capital, affect tastes and potentially shift demand, generating economic value in the arts. Under the spirit of cultural omnivorousness, by which tastes for 'high' art are merged with 'popular' culture, the taste formation that takes place changes the realities of the art world, as well as the consumption choices of art audiences (Peterson & Kern, 1996). However, before analyzing the economic perspective of that change and the way it is reflected in institutions, it is important to highlight both the opportunities and challenges that are introduced in the 21st century museum.

2.2.2. The Multimedia Museum

By the 1970s, there was a growing tension between artists and museums, not only regarding the white cube structure and displaying methods, but also the perception of art institutions as a larger political association (Reiss, 2001). Installation art in that sense, was presented as an act of protest towards the museum's authority and traditional character and belonged to the institutional critique wave of the late 20th century, which actively questioned and addressed museums in a contemporary context (McDonald, 2013; Rauning & Ray, 2009). In response to the changing nature of art experiences, exhibition design was perceived as 'experience design', placing attention towards visitors and connecting them with the museum through various high-tech media (Skramstad, 2007).

This postmodern museology framework portrayed the need for museums to restructure their activities regarding conservation, displaying and scholarship in the new digital environment (Vergo, 1997). Following that perspective, Hooper-Greenhill proposes that the post-museum uses spectacle not only to attract audiences, but also to communicate with them, stimulate their knowledge and create communities. Particularly she highlights, that *"instead of transmitting knowledge to a mass audience, the post-museum listens and responds sensitively as it encourages diverse groups to become active participants in the museum discourse (…) It asserts that the institution must show ambiguity and acknowledge multiple, ever-shifting identities."* (Marstine, 2008, p. 19).

By bringing the individual experience in the center of museum strategies and acknowledging the influence of technology in the exhibition space, there is no doubt that an immersive agenda becomes essential part of the post museum exhibition design. Specifically, in the last years, the multimedia museum emerges to address the demand of a diverse audience by encompassing interactive, digital media that create an informative, participatory and, thus, engaging museum visit (Davis et. al., 1996). Although the audience-centered museum approach is necessary as museums compete with other leisure activities, it also adds the complexity of creating clear content, while engaging and connecting to visitors with various motives, cultural, social and economic backgrounds (Dernie, 2006). Therefore, although profit is not necessarily the main purpose, museums of the 21st century are required to 'sell', to change attitudes, modify behavior, and increase conformity (Dean, 2002, pp. 2).

Considering the above, it is clear, that under the postmodern perspective, museums need to adapt to a multidimensional role of preserving identity and providing knowledge in an inclusive and engaging environment, while being economic agents, in the sense of maximizing audience attendance and affecting economic behavior to shift demand (Fernandez & Pietro-Rodriguez, 2011). By becoming more visitor-centered and market-oriented, museums of the 21st century are required to pay attention to the needs of visitors and respond to the demand for a 'service experience consumption' through the provision of emotional and cognitive stimuli (Chan, 2009, pp. 175). The multimedia museum experience provides a setting which may allow museums to potentially achieve this changing role.

Whether the immersive displaying practices are entirely efficient or not under an economic perspective, requires the further examination of production costs and policy agendas. Nevertheless, for the scope of this research and when focusing on the demand side, it is rather clear, that immersive art spaces are considered to engage individuals by offering spectatorship, mental absorption and active learning.

Taking the aforementioned into account, and before addressing the economic value of immersive art displays, it is important to keep in mind the following points:

- the immersive art spaces provide a digital exhibition setting that combines immersive with discursive elements in order to engage the viewer.
- in that setting, the visitor is an active participant, constructing knowledge and having unique sensory and emotional experiences.
- opposed to the white cube realm, the multimedia gallery environment is addressed to audiences of different social, economic and capital backgrounds and places the immersive experience in the center of exhibition making.

- the immersive art space on an institutional level is a response to the postmodern inquiry for a multimedia, inclusive museum that has political and economic value and keeps up with the external cultural, technological and economic changes.

2.3 Experiencing Art

2.3.1. Cultural Experience Goods

So far, the theoretical analysis has proved how art spaces have evolved under the different art movements, economies and technological innovations that have influenced art norms and consumption behaviors. It was mentioned, that under the changing social and cultural influences of the recent years, the white cube has been replaced with digital and immersive media in an effort to create art spaces that respond to new consumption patterns and previously excluded audiences. In order deeply understand the potential economic impact of immersive art displays, it is important to also frame the cultural economic theories that underline the aforementioned changes.

What should be mentioned primarily, is that immersive art displays can be perceived as a kind of new ‘product’ that addresses new modes of consumption under the realm of experience economy. That is because immersive art displays are, by definition, cultural experience goods. According to Hutter (2011), the notion of experience goods stems from two main theoretical perspectives, one being the high search cost of information, and the other the unique characteristics of the creative sector. Nelson (1970) was the one to connect information and consumer behavior, in the sense that consumption choices can have high search costs due to the lack of sufficient information about quality and often price. He argues that the alternative to search is experience, in other words, the consumer can determine quality not only by searching for this information, but also by purchasing and using, thus, experiencing products and services.

When it comes to cultural goods, this alternative is rather a core element. Because cultural and creative industries combine creation, production and commercialization of contents which are intangible in nature, the cultural products require a ‘creative act’ of the producer on the one side, and the ‘experience’ of the consumer-user on the other (UNESCO, 2000; Hutter, 2011). Accordingly, the intangible nature of art displaying, places experience in the core of consumption. In that sense, the technological evolution of art spaces as immersive and sensory environments, should be examined under the framework of cultural experience goods. By using digital media,

immersive art environments enable emotional responses and address the ‘experiential’ nature of art consumption.

This, not only differentiates cultural products from market goods, but also highlights the connection between cultural capital and economic value. The cultural capital refers to the knowledge and ‘habitus’ that is transmitted in a social environment. It can either be *embodied*, encompassing the intellectual skills, tastes and habits of an individual, *objectified*, which refers to cultural property, or *institutionalized*, implying institutional recognition (Bourdieu, 1986). As already discussed, in the white cube, the cultural capital of visitors was mainly associated with intellectual skills, formal codes of behavior and a particular taste for ‘high’ culture. Meanwhile, the cultural value of the white cube as an institution, was a representation of aesthetic and historical importance, uniqueness and social function (Throsby, 1999).

Because of the hierarchical patterns of cultural consumption, the visitors of the white cube were individuals with a preference for ‘high’ art. Hence, cultural value generated economic value, in the form of their willingness to visit and preserve art spaces. Nevertheless, this economic value was rather limited as it excluded those with a taste for ‘popular’ culture, who felt unfit in white cube settings and, thus, did not choose to attend them. Consequently, it is clear that the economic effects of cultural goods are attributed to the peculiar and complex nature of demand in the arts, which is highly experiential and underlined by socioeconomic factors.

Taking the above into account, demand in cultural economics can explain patterns of consumption on a behavioral level, as *“consumers are not just a source of income, but they are also participants who are signaling their satisfaction with a product or a visit”* (Towse, 2010, p.141). In an art setting today, these patterns can be identified in the different types of visitors who, according to Jarness (2015), can be intellectual, luxurious, educational or practical. Briefly, he argues, that the intellectual and luxurious types usually value the quality of art and seek for complexity, depth and intellectual qualities from their visit. From a different point of view, the educational and practical types have an urge to learn from various sources in the exhibition environment, while being comfortable, entertained and having a sense of personal identification.

Therefore, the different consumption patterns can reveal different preferences, attitudes and motivations that drive the willingness to visit an art space or to purchase a cultural experience good. This direct relationship between preferences and demand is a unique characteristic of art consumption and fits in the theory of taste formation. Regarding taste in the arts, Throsby (1994) argued that *“the endogenization of tastes in economic models is likely to be essential if any progress is to be made in explaining demand for the arts”* and he believed that taste is cultivated by past experiences, leading to present satisfaction and affecting future consumption (Throsby, 1994,

pp. 3). In other words, taste formation is a dynamic process that takes place over time and impacts present, as well as future economic behavior (Towse, 2010, pp.153). In that perspective, because taste is discovered through experiences, exposure to new forms of displaying and exhibition environments can potentially shape new preferences and increase consumption over time (Levy-Garboua & Montmarquette, 2002).

On a secondary level, art consumption and demand are affected by the social and cultural circumstances under which taste is shaped. This is an important observation to take into account when examining the changing patterns of attendance to art spaces and justifies the need to provide an analysis in the broader social context. As it was discussed previously, commercialization and digital innovations in the recent years have blurred the distinction between 'high' culture and 'popular' culture and shifted the role of museums and galleries towards the leisure industry, where entertainment and demand for experience services are strong (Koster & Arroyo, 2000; Chan, 2009). Under those realities, the emergence of immersive art spaces as a 'new' cultural experience good stems from the changing preferences and profiles of visitors-consumers.

Overall, as experience economy is growing and a shift is observed from commodities, goods and services to experiences (Pine & Gilmore, 1999), the re-conceptualization of the white cube seems to be necessary for reaching new audiences with heterogeneous tastes. For this reason, the economic impact of immersive art displays in the exhibition environment, should be analyzed on the basis of the 'experience service' they offer. Therefore, the next step before making any further observations, is to provide a clear definition of what the visiting experience consists of and what are the different factors that may affect it.

2.3.2. Dimensions of Experience

Combining Dierking's and Falk's (1992) *Interactive Experience Model* with Pine and Gillmore's (1999) theory of *Experience Realms*, a clear theoretical context can be generated and used to describe what the individual undergoes when visiting an art space and how the personal and social context interact with that process.

To begin with, Falk (2016) argues that the visit experience is a combination of the individual's identity-related needs, interests and motivations with the overall social perceptions of how the exhibition environment can satisfy those. For this reason, the exhibition experience from a visitor-centered perspective is contextual and influenced by the interaction between the *personal context*, meaning the personality traits, prior knowledge, experience, attitudes, motivation and interests, the *physical context*, including the objects and aesthetics of the space, as well as the *social*

context, consisting of visiting company, exhibition staff and other visitors (Dierking & Falk, 1992). In other words, the Interactive Experience Model suggests that there are contextual elements to take into consideration, that visitors 'bring' in the exhibition space and encounter in their overall experience.

Regarding the personal context, both demographic and psychographic characteristics are important (Hood, 1983). As it was argued, for instance, frequent museum visitors are usually considered to be of an older age, more educated, well-paid and with prior knowledge, experience or interest in art-related activities (Falk, 2016). In that sense the 'educated citizens' (Bennett, 2006) in terms of official education, as well as art knowledge, are expected to better appreciate art and remain engaged during their visit. On the basis of that, two hypothesis can be formed:

H2: Being educated leads to greater overall visiting satisfaction.

H3: Having an art-related background leads to greater overall visiting satisfaction.

Nonetheless, this demographic data does not indicate the reasons why individuals chose to visit museum exhibitions, as this kind of decision is affected by psychographic factors, including values, attitudes, perceptions, interests, expectations and satisfactions (Hood, 1983). Especially the different attitudes and expectations, may indicate preoccupations and specific tastes or preferences for cultural activities and, consequently, can predict the action of visiting (Sheng & Chen, 2012).

According to Sheng's and Chen's study (2012), the expectations of museum visitors can be categorized among easiness and fun, cultural entertainment, personal identification, historical reminiscence and escapism. In a similar way, motivations are strong indicators of visiting behavior and can range from social, educational and entertaining to feeling challenged, doing something worthwhile and actively participating in the exhibition setting (Hood, 1983). Taking those theories into consideration, another important set of hypothesis concerns the effect of motivations and expectations to the overall visiting experience. Particularly, the hypothesis can be formed as follows:

H4: Motivations influence overall satisfaction of visitors.

H5: Expectations influence the overall satisfaction of visitors.

In addition to the above, it is argued that the social context occurs and impacts the exhibition visit. That is because, under the influences of cultural upbringing and societal norms, visitors shape their overall expectations and perceptions around art. At the same time, the relationships within visiting social groups, as well as the interaction between social groups that coexist in the exhibition space, can have an impact on the individual experience. Moreover, the 'realities' of the exhibition environment, that is, the physical elements of space, the curatorial design, as well as the guides or programs visitors use and participate in, can determine a positive experience in terms of aesthetic

attraction and visiting duration (Falk, 2016). As a result, the interaction between the personal, social and physical context, is the foundation of the individual experience and can potentially determine a successful and engaging exhibition design.

Having contextualized the visiting experience, what still needs to be defined is what constitutes a 'successful' or 'engaging' art space, in other words, when is an experience considered 'optimal'. For that, Pine and Gilmore's (1999) theoretical model provides an extensive approach. More specifically, Pine and Gilmore identify four experience dimensions: *education, entertainment, escapism and (a)esthetics.*

Hooper-Greenhill (1999) strongly highlighted the educational realm in museums, which involves education in the form of information provision, as well as the process of interpretation and communication. She argues that, depending on the individual knowledge, skills and interests, visitors construct their own meaning and interpret the exhibited displays according to their personal understanding. Apart from that, since the exhibition space is also a social space (Bennett, 1995) in which interrelations are practiced and behaviors are shaped, the process of communicating, sharing and participating is also part of the 'exhibition interpretation'. In that sense, the exhibition environment actively constructs knowledge through an interaction between the visitors, the observation of artworks and the gallery context (Bal & Bryson, 2013).

Although educational experiences involve a sort of active intellectual, and often, physical participation, entertaining experiences can be absorbed passively through the senses (Pine & Gillmore, 1998). This passive absorption occurs when visitors feel relaxed and comfortable in the gallery space, while interacting with each other and being involved in stimulating activities. Therefore, the entertaining realm in the art space is associated with feeling at ease while being social and having fun. In this kind of informal setting, visitors are able to structure knowledge by following their interests and satisfying their needs (Housen, 1987). In that sense, visiting expectations of fun and social activities may overlap with the educational purposes achieved during the exhibition visit (Radder, 2015). Because of this overlap, Pine and Gillmore (1999) refer to the term 'edutainment' as a dimension of the experience combining both educational and entertaining elements.

Apart from the above, the dimension of escapism can be fundamental for a unique and distinct exhibition experience. From a psychological perspective, to feel part of a physical space, one must feel immersed in it, that is, to have some kind of emotional response to the surrounding environment (Mitchell, 2010). As discussed previously, immersion is a mentally absorbing process that is achieved through sensory triggers found in the gallery. Taking that into consideration, to 'be' in an exhibition space is not a neutral or passive act, but rather a 'flow', an experiential process in

which the interaction with the exhibit is intrinsically rewarding, and has sensory, intellectual and emotional complexity (Charman, 2016). Therefore, an escapist experience is achieved through immersive and discursive exhibition design, the primary intention of which, is to achieve reflection and knowledge, as well as inspiration and emotional engagement (Tharp & Tharp, 2019).

Of course, the aforementioned dimensions would not be complete without the actual physical, aesthetic experience of the exhibition space. Factors such as color, lighting, labeling, location, selection of works and displaying style, contribute to the way visitors encounter art (McDonald, 2013). The physical facilities combined with sensory triggers enabling emotions and stimulating the imagination, as well as the curatorial activities that visitors participate in, all create a certain atmosphere, an 'aesthetic' of the exhibition context (Radder, 2015). Therefore, although the aesthetic experience can be pragmatic and physical, it also involves emotional responses and proves that artifacts have a complex presence and are subjected to different interpretations by the visitors (Vergo, 1997).

Combining the aforementioned elements, an 'optimal' experience requires the balance between the individual's preexisting knowledge, expectations, interests, motivations and social relationships, as well as the satisfaction of edutainment, escapism and esthetics in the exhibition environment (Falk et al., 2004). When this is achieved, the visitors not only feel engaged and satisfied in an art setting, but they are also motivated to visit again and remain engaged in the future. In that sense, remaining satisfied from the overall exhibition experience can shift expectations and motivations that are key indicators of future loyalty (Brida et al., 2012, pp. 290). As Pine and Gillmore have argued,

"The sweet spot of any compelling experience-incorporating entertainment, educational, escapist, and esthetic elements into otherwise generic space-is a mnemonic place, a tool aiding in the creation of memories, distinct from the normally uneventful world of goods and services. Its very design invites you to enter, and return again and again. Plain space becomes distinctive place." (Pine & Gillmore, 1999, p. 43).

That being said, it is expected that an 'optimal' exhibition experience, successfully combines the different experiential dimensions. On the basis of that statement, the following hypothesis is derived:

H6: The satisfaction of escapism, education, entertainment and esthetics leads to greater overall satisfaction of visitors.

2.4. A Democratic Approach

The aforementioned analysis makes it clear, that strong experiences can have a strong economic impact as they may be essential for audience attendance, engagement and future consumption. The evolution of high-tech media and their introduction in exhibition making through experience design, create a re-conceptualized art space that fits into the experience economy realm. The existing theory certainly proves that an audience-centered exhibition design is not only an outcome of postmodern art practices, but also of the changing needs of cultural consumers and the unique nature of demand in the arts.

As it was discussed previously, the immersive art environment is addressed to a diverse public that does not necessarily acquire the characteristics of the 'educated citizen' who was the typical visitor of gallery spaces. The more individuals have access to such settings, the more diversity there is among tastes, intellectual capabilities, and past experiences that are all part of the cultural and social capital the visitor brings in the exhibition space. Apart from that, as commercialization grows and the distinction between 'popular' and 'high' art is fading, the cultural value of art spaces is perceived as a leisure activity in which consumers seek for more than purely aesthetic experiences, but rather for engaging and memorable elements. Because cultural value is translated to economic value, and because experiencing cultural goods creates memories that distinguish them from other goods and services, immersive experiences may impact engagement and consumption (Pine & Gillmore, 1999).

Taking the above into consideration, it can be argued that the transition from the white cube to the immersive, digital art environment introduces a democratic approach to cultural consumption. By adjusting to the innovative era that poses new needs and places the individual experience in the center of attention, the immersive gallery space responds to diverse demands of a diverse audience determining economic value.

Looking back at the origins of art spaces, a sense of sacredness and exclusiveness, created boundaries and distinctions between the activities of an art avant-garde and the mass population (Becker, 2008). In such conditions, not only art visiting was excluded from the activities of the broad public, but also the 'highbrow' citizens were excluded from participation in any 'popular' cultural happening (Peterson & Kern, 1996). Thus, a classification of tastes was reflected in cultural consumption taxonomies. Nonetheless, exposure to cultural experience goods reflects already existing preferences, while it can also shape new ones over time. Therefore, as the transition from an exclusive white cube to an inclusive digital art space takes place, cultural omnivorousness may be more likely to be achieved (Roose et. al., 2012).

Introducing diverse audiences and diverse tastes in the art environment is one aspect of democratization that can be examined in the context of immersive digital gallery spaces. On a secondary level, the transition from a passive to an active gallery environment is democratizing experiences and reflects an equal appreciation of art. Particularly, the immersive exhibition design, challenges passive spectatorship and emphasizes on active experiences through participation and communication between curators, artists and the public (Gronemeyer, 2018). By creating an emotionally and intellectually engaging environment that goes beyond physical limitations, immersive and discursive exhibition design provides a speculative realm of 'thinking and doing', in which knowledge has social and political relevance (Gronemeyer, 2018).

Under that perspective, learning in the exhibition space is perceived as a social and cultural construct, while the interactivity is freeing visitors from earlier restrictive codes of curatorial authority and allows them to construct their own forms of engagement (Bedford, 2016; Bennett, 2006). Artifacts in that sense are not neutral, but subjected to the interpretation visitors construct individually, according to their knowledge, interest and social influences. This narrative mode of thought creates a 'storytelling' in the gallery space that stimulates emotions, imagination and creativity, transforming the art space into a self-reflexive artifact itself (Duclos, 1994). In this manner, knowledge is transmitted through a less privileged way of looking and provides intellectual value that can change habits and tastes (Vergo, 1997; Pearce, 2010).

Overall, the analysis of immersive art displays from the visitor's perspective is certainly necessary to generate conclusions for engagement, tastes and cultural consumption patterns. At the same time, examining the exhibition practices can reveal cultural debates and highlight the connection between art and a broader sociopolitical context. Exhibition design is now required to respond to the evolutionary changes of cultures, technologies and economies. Consequently, cultural democracy should encompass the innovative progress of the external environment by creating a different context for accessing and experiencing art in the gallery space. As Graves (2005) puts it,

"the images and assumptions that we receive through the media and revere in our temples to high art are representative of an extremely narrow cultural perspective. They reflect tastes and values of the elites. Cultural democracy offers a system support for the cultures of diverse communities that is respectful and celebratory, that gives voice to the many who have been excluded from the public domain" (Graves, 2005, p. 17).

Those observations should be taken into consideration when discussing the implications of adopting immersive art practices on an institutional level and can provide the social and cultural indicators that affect demand and visiting patterns.

2.5 Concluding theoretical remarks

The theories that were framed and discussed above are important for when trying to understand immersive art displays as cultural experience goods and their implications for future art spaces and museums, both on an economic and a social level. It was highlighted that the transition from the white cube to the spatial arts, or as Kaprow (1956) stated, the shift from exhibition to installation, was not only an opposition of postmodern movements towards the 'high' and 'popular' art distinction, but also a necessary response to the changing economic circumstances of the late 20th century (Kaprow, 1956). The dominance of an experience economy introduced a new kind of demand in the arts, with high diversity and an inquiry to 'consume' experiences. Under those conditions and as technology was more involved in art practices, the multimedia exhibition environments became necessary for attracting and engaging visitors.

The immersive art displays seem to fit in the experience economy realm and the unique nature of demand in the arts and they are introduced as cultural experience goods that can respond to the socioeconomic influences of individual behavior and cultural consumption. On the one hand, they address the visitor's cultural capital, which is proved to affect the overall exhibition experience. As already stated, the knowledge and 'habitus' that are created in the social environment, affect preferences and tastes that drive art consumption choices (Bourdieu, 1986). This was particularly evident in the fact that only 'educated citizens' consumed high art, while the public was only involved in popular entertainment. Regarding art spaces, this, created consumption patterns that reflected distinct individual backgrounds and preferences, while it generated a certain economic value in the form of visiting attendance.

Nevertheless, it was highlighted that tastes can change with exposure and time and hence, demand for cultural goods can shift because of changing preferences (Towse, 2010). Having said that, as commercialization blurred the distinction between high and popular art, cultural consumption patterns changed and a more diverse set of visitors was included in art spaces. This of course was also reflected in museums that were accessed by new diverse audiences, with new needs and demands. In that sense, the post-museum does not only acquire a social role of disseminating knowledge, but also needs to become an economic agent that satisfies visitors-consumers and competes with other leisure activities in the experience economy.

Therefore, museums of the 21st century are challenged to be visitor-centered, as well as market-centered in order to sustain engagement. The aforementioned notions prove why analyzing the individual visiting behavior is essential to understand what constitutes an 'optimal' experience and need to be taken under consideration when reflecting on exhibiting practices in a museum

context. Such a discussion will be generated after the following empirical analysis, which will provide insight into the immersive art experience and the potential economic of immersive digital practices in museums.

3. Research Methodology

Having framed the theory regarding experience and immersive displays in art spaces, the purpose of this research is to explore the visiting experience in the immersive art environment, specifically in three immersive art exhibitions that were held in the cities of Thessaloniki, Athens and Brussels (cf. Appendix 1). This chapter will provide more details about the method that was used to approach the research question.

The main research question driving the empirical analysis is *"How are immersive art displays perceived as cultural experience goods?"*. Because the goal is to approach the 'visitor perception' (Miles, 1986), that is, the individual satisfaction of visitors and the factors that influence their experience in multi-sensory art environments, this research question seemed the most suitable to encompass those elements. On a secondary level, the results of the analysis will be discussed, so as to indicate the implications of immersive art displays in the context of a 'post-museum'. Therefore, the analysis will take place in two levels, the first being what the research results reveal for the individual visiting experience, and the second, what they imply for museums and art spaces under the postmodern theoretical approach.

Considering the above, the following sub-research questions were formulated to indicate the 'visitor perception' of immersive art displays:

1) How satisfied are visitors from their experience with immersive art displays?

2) What factors influence the visiting experience in the immersive art spaces?

In addition to that, and based on the theoretical framework that was provided previously, the following set of hypothesis were tested in relation to the research questions:

H1: Visitors in immersive art exhibitions are overall satisfied from their visiting experience.

H2: Being educated leads to greater overall visiting satisfaction.

H3: Having an art-related background leads to greater overall visiting satisfaction.

H4: Motivations influence overall satisfaction of visitors.

H5: Expectations influence the overall satisfaction of visitors.

H6: The satisfaction of escapism, education, entertainment and esthetics leads to greater overall satisfaction of visitors.

3.1 Research Method

As the theoretical analysis proved, a visitor-centered approach is necessary when examining immersive and digital art environments, in which visitors are active participants of their experience (Wigley, 2016). Because the formulated research questions aimed to explore the individual visiting experience, a quantitative method and analysis was conducted with self-administrative questionnaires. Quantitative method is thought to be the best when exploring the relationship between different variables and when exploring a deductive relationship between theory and research (Bryman, 2016). Therefore, it was judged suitable to determine objectively how different factors affect the overall experience of immersive art displays.

Visitor studies have always been used to evaluate exhibition design from an audience-centered approach (Hooper-Greenhill, 2006). Henry Hugh Higgens, the president of the British Museums Association in 1890, was the first to assess a front-end survey analysis in order to gather information about audience satisfaction, behavioral patterns and visiting regularity (McManus, 1996). Since the late 20th century and coming to the recent years, surveys have been proved to be an efficient information-gathering tool regarding demographic, attitudinal and developmental visitor characteristics (Housen, 1987).

Overall, because the focus of this study required information about experience on an individual level, it was necessary to follow a method that directly approached immersive art visitors. In addition to that, in order to conduct an efficient quantitative analysis that leads to general conclusions, a large and diverse sample size was essential. Thus, a survey analysis was easier to quantify as the self-administrative surveys were convenient in terms of saving money and time, while approaching a large sample faster (Bryman, 2016).

For the above reasons, a dissemination of surveys took place both in the exhibition spaces and online. After the survey dissemination was completed, the information that was gathered was coded into variables (cf. Appendix 3) and processed in IBM SPSS Statistics 25.

3.2 Sampling

The population that was selected for analysis included the audience that attended three immersive art exhibitions in the cities of Thessaloniki, Athens and Brussels (cf. Appendix 1). The choice of the exhibitions was based upon the literature framework and the fact that they used immersive art displays in the exhibition spaces. In that sense, they all fit under the definition of an immersive art space in which *"visitors are surrounded by a powerful and vibrant symphony of*

light, color and sound that compels them to leave the world behind and immerse themselves in an unforgettable multi-sensory experience" (cf. Appendix 1). Moreover, the three exhibitions took place at the same time as the research was being conducted and were easy to reach because of their locations. Thus, they were the most suitable and convenient sample for the researcher.

The target audience in each exhibition was selected randomly in order for all population units to have equal probability of inclusion in the total sample (Bryman, 2016). The surveys in Thessaloniki and Brussels were distributed and filled by the visitors under the physical presence of the researcher, right after the completion of their visit. For the exhibition in Athens, the survey was uploaded on a Google survey format and distributed online to contacts of the researcher that attended the exhibition. Although the sample was collected in the two different countries of Greece and Brussels, it was treated as a whole, in order to grasp the overall immersive visiting experience and generate broader conclusions.

It should be mentioned that the survey dissemination in Greece took longer and thus most of the sample has a Greek responding audience. Moreover, the days when the research was performed, a majority of schools visited the exhibition space, which could imply a large amount of students or young adults in the total sample. Overall, the three exhibitions provided the researcher with 196, 27 and 74 surveys respectively. However, after a data clearing process, 10 surveys were found incomplete and were excluded, resulting in a final total sample of 287 valid questionnaires.

3.3 Survey Design

Because the exhibitions took place in Greek- and French- speaking countries, the survey's distribution languages were mainly Greek and French, while some English surveys were included for international visitors (cf. Appendix 2).

In order to formulate the survey questions a variety of academic literature and past visitor studies research was used. Existing theory and empirical research on museum and exhibition visiting, not only contributed to the operationalisation of variables (cf. Appendix 4), but also to the validity and reliability of the survey design. The survey questions were mainly closed-ended and provided visitors a set of alternatives from which they could choose their answer (Bryman, 2016). However, two questions had an open-ended section in which respondents could answer in their own terms.

The questionnaire began with the Likert question *"From the scale of 1 to 5, how much would you rate this exhibition?"* which indicates the respondent's overall satisfaction and perception from their visit. The rest of the questionnaire was divided into the sections of *personal*

and social context, that is, the personal or social factors affecting the visiting experience, and the experience dimensions scale, representing the different experience realms that emerged during the visit in the immersive art environments.

3.3.1 Personal & Social Context

The first section of the surveys included questions reading the visitor's profile in terms of demographic data, psychographic data, as well as social interactions, which can potentially affect the overall experience (Dierking & Falk, 1992). That being said, an important part of the survey design included questions regarding the respondent's demographic and psychographic information. In regards to demographics, variables such as education, age, ethnicity, employment and place of residency are considered to strongly influence of attitudes and behaviors, thus, affecting the way visitors experience exhibitions as a whole (Hooper-Greenhill, 2006). Apart from that, the psychographic elements of motivations, attitudes and expectations are also included (Hood, 1983).

The attitudinal information refer to the visitors' prior experience with art, visiting motivations, as well as expectations about their visit. Regarding the art background and visiting expectations, respondents were asked to answer both closed- and open-ended questions, one being *"Do you have a background on art (hobby/academic/professional/..?) If yes, specify"* and the other, *"Overall, would you say the exhibition met your expectations? Yes or No? What did you expect?"*. By giving visitors the opportunity to freely-respond in an unstructured way, the answers indicate in more depth what visitors actually consider as art background and what are their expectations before coming to the exhibition space. This, allows the researcher to elicit rather than bury potential responses (Housen, 1987).

Although the survey design was pre-coded according to the analyzed literature, these two questions required content analysis, in which the responses were categorized and then translated into codes (Bryman, 2016). Specifically, when visitors were asked for an 'art background', the answers were categorized among art-related professions, academic studies or general activities. Hence, the categories that emerged were coded as 'professional art background', 'academic art background', 'art hobby or interest'.

Following the same procedure, the visiting expectations were categorized using Sheng's and Chen's (2012) expectation factors. As already mentioned, in their study of experience expectations for museum visitors, Sheng and Chen distinguish the expectations of easiness and fun, cultural entertainment, personal identification, historical reminiscences and escapism. Most of these concepts were identified in the survey answers and resulted into categories that were framed as

‘entertainment expectations’, ‘escapism expectations’, ‘educational expectations’ and ‘historical reminiscence expectations’. While entertainment, escapism and education are expectations that correspond to Pine’s and Gillmore’s (1999) experience realms, historical reminiscence refers to the ‘traditional’ expectation of an exhibition visit, which involves the anticipation of historical content or original artifacts (Sheng & Chen, 2012).

Table 3.1: Content Analysis	
Do you have a background on art (hobby/academic/professional/..?) If yes, specify	
Survey Answer s	Coding Frame
“I work in the design industry”, “I am an art teacher”, “I am work in a museum”	Professional Art Background
“I am studying architecture”, “I have a bachelor degree in illustration”, “I am a student in the Academy of Arts”	Academic Art Background
“I perform theater as an amateur”, “I enjoy going to artistic events”, I take painting classes”, “I do photography in my free time”	Art hobby or Interest
Overall, would you say the exhibition met your expectations? Yes or No? What did you expect?	
Survey Answer s	Coding Frame
“I expected to relax, enjoy and have fun”	Entertainment Expectations
“I expected a unique, sensory exhibition experience” *“I expected to be inspired and moved”* *“I expected to see immersive and interactive audiovisuals of high quality”*	Escapism Expectations
“I expected to learn more about the artist’s life and work”	Education Expectations
“I expected to see original paintings”	Historical reminiscence Expectations

3.3.2 Experience Dimensions Scale

In the theoretical framework, experience was defined by Pine and Gillmore (1999) as a multidimensional process, combining education, entertainment, escapism and esthetics. In order to reflect this multidimensional nature of experience in the surveys, a Likert scale was created. The items of the scale were based on Pekarik et al. (1999), who performed a research investigating

satisfying experiences in museums. More specifically, they provided a list of statements reflecting satisfying experiences which they categorized as ‘object’, ‘cognitive’, ‘introspective’ and ‘social’.

The ‘object’ and ‘introspective’ experiences were concerned with a deeper engagement that visitors have with displays, which goes beyond aesthetics and purely visual experiences (Pekarik et al., 1999). Similarly, Pine’s and Gillmore’s escapism refers to the deeper feelings that are generated during an exhibition visit that stimulate the visitor’s senses and spiritual awareness. Thus, the items framing these notions focused on questions of feeling engaged, moved or inspired during the visit.

On the other hand, ‘social experiences’ imply the entertaining aspects of being in a socially vibrant exhibition environment and feeling comfortable or relaxed during the visit. As Pine and Gillmore have stated, entertainment often overlaps with education, in the sense that it is associated with passively absorbing surrounding information because of feeling comfortable and having fun (Radder, 2015). For this reason, the ‘social’ experiences correspond to entertainment in the form of being relaxed and recharged during the visit, while ‘cognitive’ experiences indicate the more specific educational experience achieved by acquiring more information during the visit.

Apart from the experience realms that are taking place, the motivation to remain engaged with exhibition visiting in the future, is another dimension that required attention. The motivation to revisit not only indicates that each experience dimension was achieved, but also that visitors had an ‘optimal’ experience that made the exhibition a distinct place they are willing to re-attend (Pine & Gillmore, 1998). Thus, future engagement was considered to be another important item included in the experience dimension scale.

Table 3.2: Experience Dimensions Scale
Please indicate the extent to which you agree or disagree with the following statements based on your experience of the exhibition.

Scale Items	Experience Dimensions
“During my visit I felt engaged in the immersive experience.” *“During my visit I felt moved or inspired.”*	Escapism
“During my visit I relaxed and was able to reflect, contemplate and recharge.”	Entertainment
“During my visit I spent quality time with people and got to visit a major attraction in the area.”	Esthetics
“During my visit I improved my knowledge or understanding.”	Education
“I want to visit this type of exhibitions again in the future.”	Future Engagement

3.3.3 Validity & Reliability

Using the existing literature and empirical research regarding recent visitor studies in exhibition spaces, not only facilitates the research design and processing, but also ensures validity and reliability. Apart from the operationalisation of concepts into variables on the basis of legitimate theoretical and empirical framework, the sampling collection was carefully administrated. Specifically, the respondents were selected randomly in order to collectively provide a representative and consistent immersive art population audience. In addition to that, the data set that emerged was large enough for successful statistical analysis. The data clearing process also limited errors that could result from illegible or inappropriate answers and incomplete surveys. Finally, reliability tests were conducted in SPSS in order to statistically validate the reliability of the sample.

4. Research Findings

After demonstrating the method that was used, the reasons behind the research decisions and the theoretical framework of the research designing process, in this chapter, the results of the study will be analyzed and discussed to provide an answer to the formulated hypothesis and, consequently, to the research questions that will lead to further conclusions. The aim of the analysis is to identify how visitors perceived immersive art displays in regards to their overall satisfaction and what factors influenced their experience. The results of such analysis will potentially showcase the 'success' of immersive art displays as cultural experience goods and their potential economic and social value for museums and art spaces.

4.1 Visitor Perception

4.1.1 The context of the visiting experience

Starting from the profile of the respondents, a descriptive analysis can provide the overview of the results. As it was mentioned in the methodology chapter, and according to the results of the frequency table (Table 4.1), most of the respondents were Greek, while from the exhibition in Brussels a more international audience emerged. Male and female visitors were more or less equal, with male respondents being 10% more. There was also a high amount of students and young employed adults, which explains why the majority of the sample was found to acquire a high school education level. In addition to that, the social context seemed to be important for visitors, as 35.2% found out about the exhibition because of word-of-mouth recommendations, 31% visited in a school setting and only 9.1% visited on their own. The survey data certainly revealed a diverse visiting group, not only in terms of age, gender, education and employment, but also regarding psychographic elements of motivations, attitudes and expectations (Hood, 1983).

An interesting observation is that, although most respondents were familiar with technology and motivated by their personal interest in the exhibited subject, the majority did not have prior experience with immersive art exhibitions. The innovative and relatively new nature of immersive art displays could explain this observation, especially for Greece, where the exhibition took place for the first time in 2018 (Leonardo Da Vinci 500 Years of Genius, 2019). Nonetheless, it should be highlighted that a rather high amount of the sample, reaching 24.7%, had visited similar exhibitions before. It was found that, among them, 52.11% had an art related background, thus indicating that visitors with a more specific professional, academic or personal background in art, were more

familiar with the new digital ways of art displaying. Whether or not this element is also a determinant of their overall satisfaction, will be tested and discussed later on.

Overall, although most visitors did not have prior experience with immersive art spaces or art in general, there was a significant amount with art-related familiarity. This is an information that should be taken under consideration when examining the satisfaction of an audience that, for the most part, visited immersive art spaces for the first time and should be analyzed further in relation to the overall satisfaction.

Apart from that, on an attitudinal level, the motivations of visiting were mostly related with entertainment or general interest in the exhibited subject (Table 4.1). In addition to that, the different expectations that were held before the visit should be taken into account. The majority of the sample felt like their expectations were met, while most of them expected to learn more about the artist and to see immersive audiovisuals of high quality. Around 7% had escapist expectations of a unique and sensory stimulating experience and only 2.4% expected to see original paintings, which indicates expectations of historical reminiscence. Therefore, there seems to be a slight difference between expectations and motivations, as the expectations of an educative experience were the highest, while most visiting motives were related to entertainment or interest in the subject.

The aforementioned results, not only prove the demographic and attitudinal diversity of the examined sample, but also mostly confirm Falk's and Dierking's (1992) theory, stating that the visitors 'bring' in the exhibition space their personal and social context. What remains to be examined is how the differences among visitors can affect their experience and satisfaction.

Table 4.1: Personal & Social Profile of Visitors (n=287)

Variable	Frequency	Percentage
Gender		
Male	155	54.0%
Female	128	44.60%
Other	2	0.70%
prefer not to answer	2	0.70%
Age		
less than 12	10	3.50%
12-17	65	22.60%
18-24	55	19.20%
25-34	35	12.20%
35-44	37	12.90%
45-54	46	16.00%
55-64	28	9.80%
65-74	10	3.50%
more than 75	1	0.30%
Education		
No schooling completed	28	9.80%

Elementary	10	3.50%
Secondary	69	24.0%
High School	91	31.70%
Bachelor	43	15.0%
Master	36	12.50%
Phd	4	1.40%
Prefer not to answer	3	1.0%
Employment		
Employed	125	43.60%
Self-employed	21	7.30%
Not Working	36	12.50%
Student	74	25.80%
Retired	5	1.70%
Unable to work	12	4.20%
other	8	2.80%
prefer not to answer	4	1.40%
Place of residence		
Greece	215	74.91%
Belgium	31	10.80%
France	8	2.80%
UK	2	0.70%
Ireland	2	0.70%
Austria	6	2.10%
Swiss	3	1.0%
Netherlands	2	0.70%
Luxembourg	1	0.30%
Denmark	1	0.30%
Italy	1	0.30%
United States	3	1.0%
Australia	5	1.70%
Mexico	3	1.0%
Canada	1	0.30%
Information Source		
Social Media	78	27.20%
TV	34	11.80%
Recommendation (from colleague/	101	35.20%
friend/ relative/ word-of-mouth)	65	22.60%
Internet	12	4.20%
Street ads	15	5.20%
Other		
Motivation to Visit		
I wanted to have fun	73	25.40%
I am interested in the subject	180	62.70%
I am wanted to visit a touristic attraction	11	3.80%
I am wanted to learn more about the subject	10	3.50%
Other: It was recommended to me	10	3.50%
other: not specified	15	5.20%
Visiting Company		
Alone	26	9.10%
Friends	94	32.80%
Family members	68	23.70%
other: partner	6	2.10%
other: school	89	31.00%
other: not specified	16	5.60%
Prior visit to this / similar exhibitions		
I have visited this or similar exhibitions before	71	24.70%
I have not visited this or similar exhibitions before	215	74.90%

I have visited the same exhibition before	3	1.00%
Art Background		
Yes No Yes: I have academic background on art Yes: I have professional background on art Yes: I have an art-related hobby or general interest in art	124 161 30 12 47	43.20% 56.10% 10.50% 4.20% 16.40%
Daily use of technology		
Barely Moderately Regularly Very regularly Excessively	9 10 32 118 114	3.10% 3.50% 11.10% 41.10% 39.70%
Duration of Visit		
Around 30 minutes One to two hours More than two hours	51 211 24	17.80% 73.50% 8.40%
Expectations		
Yes, the exhibition met my expectations No, the exhibition did not meet my expectations *Why yes/no?* I expected a unique and sensory stimulating exhibition experience I expected to be inspired and moved I expected to see immersive audiovisuals of high quality I expected to learn more about the artist's life and work I expected to relax, enjoy and have fun I expected to see original paintings	248 31 19 13 29 51 11 7	86.40% 10.80% 6.60% 4.50% 10.10% 17.80% 3.80% 2.40%

Specifically, Falk's and Dierking's Interactive Experience Model indicated an interaction between the personal and social context of visitors which can potentially affect the overall experience in an exhibition space. That being said, a further analysis is needed in order to examine how each of the demographic, psychographic and social characteristics of visitors may be related to the satisfaction levels. For this reason, an analysis using one-way ANOVA, independent-samples t-test, as well as simple linear regression was conducted. For all statistical tests an alpha level of 0,05 was used to report significance.

The test results did not reveal significant differences between age, gender, occupation, education or place of residency among visiting satisfaction. In addition to that, the different information sources and visiting companies were also not found significant. In other words, the variety of the demographic and social context in the sample did not significantly differentiate the

visiting satisfaction levels. However, a simple linear regression analysis (cf. Appendix 5) showed that education can significantly and positively affect satisfaction at a very low level of 1.4% (Rsquare=1.4%, F(1,280)=3.984, b=.118, p=.047 < .05). The fact that most of the sample was at a young age and of a medium educational level could be the reason why the effect is very low.

To examine this further, the same test was conducted by excluding students from the sample (cf. Appendix 6). The regression analysis indicated a stronger, significantly positive relationship between education and overall satisfaction, at a much higher level of 17.2% (Rsquare=17.2%, F(1,207)=42.907, b=.356, p=.000 <.001). Therefore, it can be confidently stated, that the educational level can indeed predict satisfaction and specifically, the more educated visitors are, the more satisfied they are likely to be from their visit. Consequently, the hypothesis 2 stating that *H2: Being educated leads to greater overall satisfaction*, is confirmed.

Moving onto the psychographic profile of visitors, an independent samples t-test and a simple linear regression analysis, did not reveal significant differences between the satisfaction of visitors with art background and visitors that were unfamiliar with art (cf. Appendix 10.1). That being said, despite the high amount of individuals with prior art experience, an academic, professional or personal art background, was not found to be an important predictor of satisfaction in the sample. Thus, the hypothesis 3 that was previously formulated, regarding that *H3: Having an art-related background leads to greater overall visiting satisfaction*, is rejected.

The same analysis was conducted to explore potential differences among the satisfaction of visitors that visited immersive art exhibitions in the past and visitors who visited for the first time. Again, no significant differences were found. These results are particularly interesting because they indicate that, despite the different art-related profiles of visitors, their overall experience in the exhibition space was not determined by that.

Moreover, the different motivations and expectations were also tested in relation to the overall satisfaction. A t-test comparing the satisfaction among different visiting motives, as well as a simple linear regression analysis using motivations as satisfaction predictors, where not found to be statistically significant (cf. Appendix 10.2). That being said, the hypothesis 4, *H4: Motivations influence the overall satisfaction of visitors,* is rejected. However, after conducting a t-test based on expectations (cf. Appendix 7), it was found that they significantly differentiated their satisfaction levels.

Specifically, visitors who felt that their expectations were met (M=4.25, SD=0.775) had a different experience than visitors whose expectations were not met (M=3.20, SD=0.997); t (33.401)=-5.554, p=.000< .001. To have a deeper understanding on how the different expectations affect satisfaction, a simple linear regression analysis was also performed (cf. Appendix 8). After

testing how each of the expectations categories differentiated the overall satisfaction, it was found that the escapist expectations, as well as the expectations of historical reminiscence are significant experience predictors (cf. Appendix 8.2,8.3,8.4). Consequently, the hypothesis 5 formed as *H5: Expectations influence the overall satisfaction of visitors*, is confirmed by the analysis.

In particular, the overall satisfaction increased when visitors had the escapist expectations of a unique and sensory stimulating experience (Rsquare=15.7%, F(1,275)=6.922, b=.535, p=.009< .001), or to be inspired and moved (Rsquare=12.4%, F(1,275)=4.292, b=.506, p=.039< .05). In contrast, a negative relationship was found between the overall satisfaction of visitors that expected to see original paintings. In other words, visitors were less satisfied when they expected a more 'traditional' gallery environment in which the historical reminiscence is apparent, while the expectations of a unique, sensory stimulating and inspiring exhibition contributed to an overall positive experience.

All in all, the aforementioned analysis explored the way the different social and personal context may affect satisfaction in the immersive exhibition environment and confirmed that the educational level, as well as the different expectations can be indicators of satisfaction. Specifically, while a higher education and the escapist expectations positively affected the visiting experience, the expectations of historical reminiscence were found to decrease satisfaction levels. On the other hand, although art background and motivations were expected to influence the visiting experience, the test results did not indicate significant relationships between the variables.

It is clear that the results of the analysis can fit into Falk's and Dierking's Interactive Experience Model, as they prove that the different personal and social background the visitors acquire before their visit, can indeed interact with their experience and affect their satisfaction. The next step to fully understand the different components of experience in the immersive art exhibitions should be to analyze them according to Pine and Gillmore's dimension realms (Pine & Gillmore, 1999).

4.1.2 The dimensions of the visiting experience

The examination of the different experience dimensions can indicate whether an 'optimal' experience was achieved the way Pine and Gillmore (1999) have defined it. Specifically, they have stated that an experience is considered 'optimal' when the four realms of *escapism, education, entertainment and esthetics* are satisfied and individuals are more likely to remain engaged in the future. According to that, and based on the theoretical remarks that were framed in the previous chapters, the following hypothesis were formed and now will be tested:

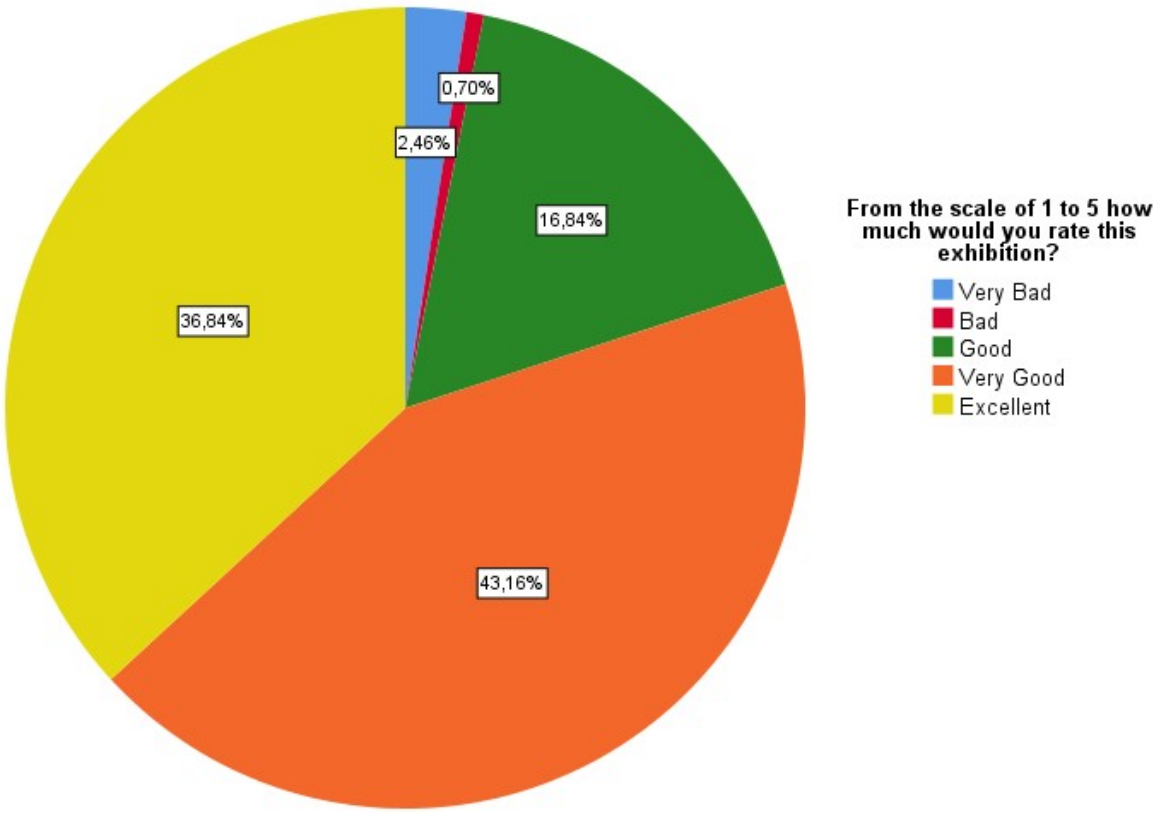
H1: Visitors in immersive art exhibitions are overall satisfied from their visit

H6: The satisfaction of escapism, education, entertainment and esthetics leads to greater overall satisfaction of visitors.

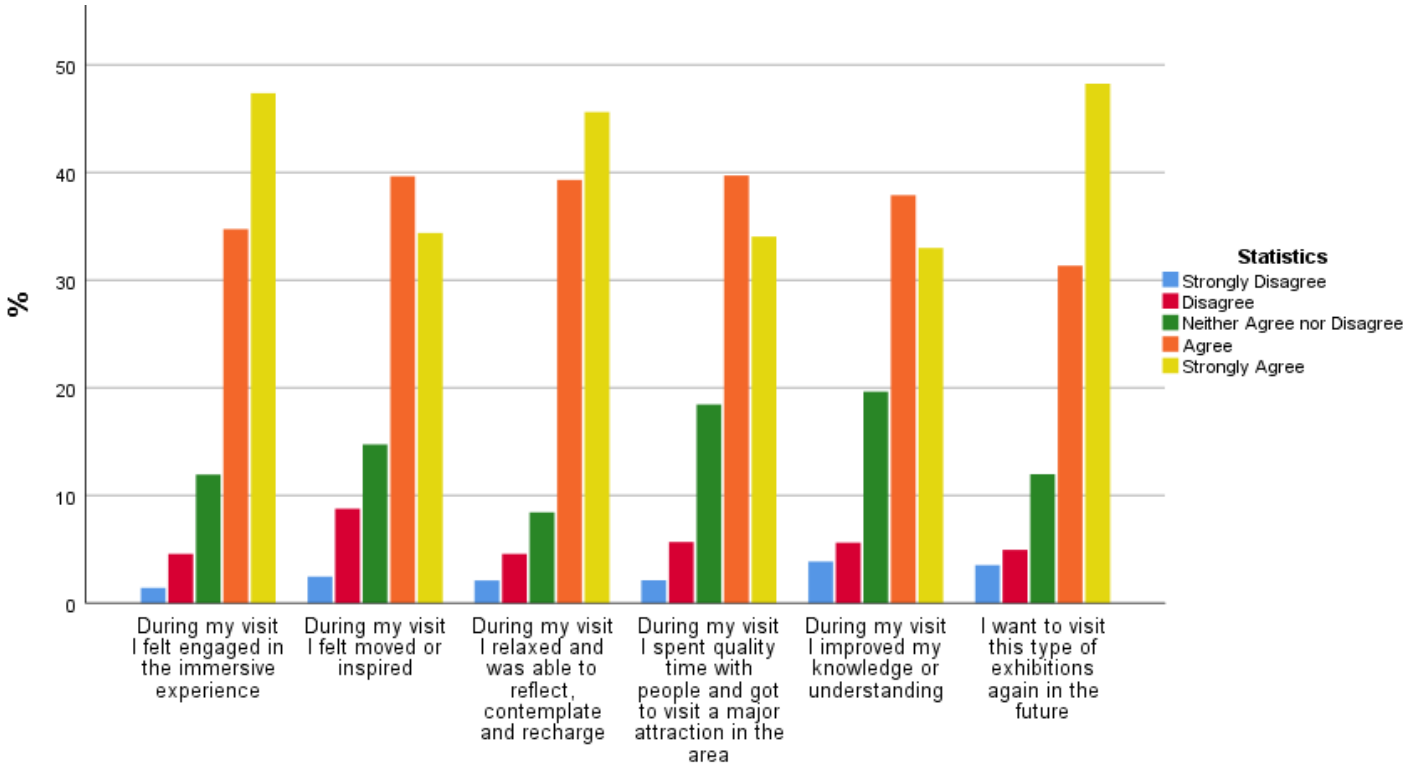
In order to test the relationship between the items representing each of the experience dimensions, as well as future engagement, with the visitor's level of overall satisfaction, the 6-item experience scale was used in combination with correlation and simple linear regression analysis.

Overall, visitors were satisfied from their experience with the majority rating either a 'Very Good' or an 'Excellent' level of satisfaction (Graph 4.1). Additionally, all experience dimensions were found to be at a high level, with most visitors reporting that they 'Agree' or 'Strongly Agree' with each statement in the scale (Graph 4.2). Thus, from a broad perspective, the immersive art exhibitions seem to have contributed to an 'optimal' experience and it can be stated that the immersive art exhibition satisfied visitors, consequently, confirming the first hypothesis.

Nonetheless, the 'optimal' of their experience needs to be tested in relation to the different experience realms and the way they influence satisfaction.



Graph 4.1: Pie chart of the visitors' overall satisfaction levels



Graph 4.2: Bar Chart of the Experience Dimensions Scale

To further investigate that, a Pearson correlation coefficient was computed, with a correlation table summarizing the results (Table 4.3). What should be highlighted, is that escapism and entertainment were, equally, the highest experienced realms (M=4.22) and positively correlated with each other (r=.536, p=.000<.001). In that sense, visitors who felt emerged in the immersive experience, also felt relaxed and entertained in the exhibition space. Moreover, they were both strongly correlated with future engagement, indicating that the potential to visit immersive type of exhibitions, increased when visitors felt sensory stimulated and entertained (r=.617, r=.610, p=.000<.001).

Another important finding is that, education highly correlated both with escapism and entertainment (r=.583, r=.527, p=.000<.001). Specifically, visitors who felt moved, inspired and relaxed, improved their overall knowledge and understanding. Consequently, it can be argued that not only emotional engagement was achieved, but also an ‘informal’ learning (Hooper-Greenhill, 1999) took place through the sensory and entertaining stimulation n the immersive environment. On top of that, the escapist and entertaining experience increased visitors’ willingness to re-attend similar exhibitions, thus, contributed to future engagement.

Table 4.3: Pearson Correlations

		Overall Satisfaction	During my visit I felt engaged in the immersive experience.	During my visit I felt moved or inspired.	During my visit I relaxed and was able to reflect, contemplate and recharge.	During my visit I spent quality time with people and got to visit a major attraction in the area.	During my visit I improved my knowledge or understanding	I want to visit this type of exhibitions again in the future.
During my visit I felt engaged in the immersive experience.	Pearson Correlation	,395**	1	,558**	,536**	,368**	,444**	,617**
	Sig. (2-tailed)	,000		,000	,000	,000	,000	,000
	N	283	285	284	284	282	284	283
During my visit I felt moved or inspired.	Pearson Correlation	,411**	,558**	1	,488**	,415**	,583**	,457**
	Sig. (2-tailed)	,000	,000		,000	,000	,000	,000
	N	283	284	285	285	282	285	284
During my visit I relaxed and was able to reflect, contemplate and recharge.	Pearson Correlation	,373**	,536**	,488**	1	,455**	,527**	,610**
	Sig. (2-tailed)	,000	,000	,000		,000	,000	,000
	N	283	284	285	285	282	285	284
During my visit I spent quality time with people and got to visit a major attraction in the area.	Pearson Correlation	,394**	,368**	,415**	,455**	1	,396**	,380**
	Sig. (2-tailed)	,000	,000	,000	,000		,000	,000
	N	280	282	282	282	282	282	282
During my visit I improved my knowledge or understanding.	Pearson Correlation	,395**	,444**	,583**	,527**	,396**	1	,551**
	Sig. (2-tailed)	,000	,000	,000	,000	,000		,000
	N	283	284	285	285	282	285	284
I want to visit this type of exhibitions again in the future.	Pearson Correlation	,470**	,617**	,457**	,610**	,380**	,551**	1
	Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	
	N	282	283	284	284	282	284	284

To take it a step further and understand how each of these aspects affect the satisfaction as a whole, a simple linear regression analysis was performed (cf. Appendix 9). It was found, that all items in the scale were significant predictors of the overall satisfaction with positive standardized slopes. In other words, the realms of escapism, entertainment, education, esthetics and future engagement positively affected the overall visiting experience. This confirms the last hypothesis

stating that *H6: The satisfaction of escapism, education, entertainment and esthetics leads to greater overall satisfaction of visitors.*

Out of the four realms, escapism in the form of feeling moved or inspired, had the highest effect on the overall satisfaction (Rsquare=15.6%, F(1,281)=52.044, b=.395, p=.000<.001). The effects of esthetics and education were more or less the same, while future engagement was the strongest predictor of satisfaction within the experience scale (Rsquare=22.1%, F(1,281)=79.369, b=.470, p=.000<.001). That being said, the more visitors felt immersed in an escapist experience and motivated to revisit, the more satisfied they were overall.

The aforementioned analysis comes in accordance with Pine and Gillmore's theory regarding the multidimensional nature of experience. The tests confirmed that when the escapist, educational, entertaining and esthetic realms were satisfied, the experience as a whole was positively affected and visitors felt motivated to visit immersive art spaces again in the future. Overall, the analyzed data proved that the examined immersive art exhibitions not only increased the visitor's emotional engagement because of the escapist nature of their experience, but also stimulated them intellectually by improving their knowledge in an informal, entertaining exhibition setting.

4.1.3 Engaging Immersive Experiences

To summarize the survey analysis, the test results confirmed hypothesis H1, H2, H5 and H6, while H3 and H4 were rejected. In relevance to the research questions, it was found that visitors are highly satisfied from their experience with the immersive art displays and that their experience is affected by their educational background, their expectations, as well as the different experience realms of education, entertainment, escapism and esthetics. All in all, the following observations were found to be the most important:

- The visiting groups were demographically diverse and highly satisfied from their experience.
- Visitors 'brought' in the exhibition space their own personal and social context. Specifically, they visited with social groups, were motivated by personal interest in the exhibited subject and mostly expected to learn. While a high amount of them has art-related backgrounds, they were not familiar with immersive art exhibitions.
- The personal and social context of visitors interacted with their overall experience and satisfaction. In particular it was found that a higher educational level and the expectations

for an escapist experience can increase satisfaction. Nonetheless, visitors who expected a traditional display of original paintings were less satisfied.

- The experience dimensions contributed to an ‘optimal’ overall experience. More precisely, not only each of the realms of escapism, esthetics, education and entertainment, as well as the future engagement were highly satisfied, but also positively affected each other and the experience as a whole.
- The experience dimensions of escapism and entertainment increased the visitor’s learning and motivation to visit immersive exhibitions in the future. That is because both of the escapist and entertaining realms were significant positive predictors of education, as well as future engagement.

The analysis and observations that were generated, indicated that visitors perceived the immersive exhibitions as engaging and emotionally stimulating art spaces, in which they can learn and feel entertained. In that sense, both immersive and discursive goals (Charman, 2016) were achieved through the immersive art displays which, by definition, *“use the language of multi-sensory, embrace all senses and create a space where visitors feel detached enough from the world to reflect upon the world”* (Wigley, 2016, p. 3). Moreover, the satisfaction of visitors on an escapist and entertaining level, also increased their motivation to attend immersive art spaces in the future. Taking that into consideration, it can be argued that the examined exhibitions provided a rich experience which incorporated all different realms framed by Pine and Gillmore and, thus, created a distinct space that *“invites people to enter and return again and again”* (Pine & Gillmore, 1999, p.43).

What is also important to highlight, is that a meaning-making process certainly took place in the examined exhibitions. The fact that the majority of the visitors expected to gain knowledge and improved their understanding when they felt emotionally stimulated and entertained, comes in accordance with Hooper-Greenhill’s ‘exhibition interpretation’ (Hooper-Greenhill, 1999). As she argued, most visitors have unspecific learning goals and the learning experience can be informal, as ‘leisure learning’, allowing visitors to gain knowledge through entertaining and emotionally engaging activities. The different personal and social backgrounds of visitors should also be taken under consideration, as it was indicated that expectations can influence the overall exhibition experience.

Consequently, it can be argued that the visiting experience was a ‘flow’ (Dierking & Falk, 1992), an interaction between prior knowledge, expectations, skills and social context of visitors. The realms of escapism, edutainment and escapism also interacted with each other and with the

overall satisfaction. It should be concluded that the analysis of the individual visiting experience proved that the examined immersive exhibitions created an environment, where knowledge was actively constructed (Bal & Bryson, 2013), senses and emotions were stimulated and visitors were willing to remain engaged in the future.

4.2 Implications

4.2.1 Economic value of experience

It is clear from the previous analysis that the visitor's perception is positive and that the immersive exhibition environment provided engaging and sensory stimulating experiences. On an economic level, it is necessary to evaluate what this positive perception implies for the use of immersive art displays as cultural experience goods. As Becker (1993) has argued, the examination of individual behavior at a micro level, can provide useful observations at a macro level (Becker, 1993, pp. 402). Therefore, the results of the individual visiting experience can be discussed in the context of experience economy and generate useful remarks regarding cultural consumption choices and demand for museums.

As already mentioned, the value of experience is not only attributed to the experiential nature of cultural goods, but also to the broader economic change that has been dominating in recent years (Hutter, 2011). With commercialization and technological innovations merging 'high' with 'popular' culture, diverse audiences enter art spaces and encompass not only a variety of demographic and social backgrounds, but also a variety of cultural capitals and tastes. At the same time, the shift from commodities, goods and services to 'experiences' (Pine & Gillmore, 1999) requires from the creative sector to respond in innovative ways that relate the exhibition environment to the different expectations and profiles of art consumers.

This diversity was particularly evident in the examined sample, in which visitors did not necessarily fit the white cube profile of being highly educated, familiar with art and expecting mainly aesthetic and intellectual stimulation in the exhibition environment (O'doherty, 1999). In contrast, the majority of them were experiencing an immersive art setting for the first time, acquired medium education and did not have much familiarity with art on an an academic, professional or personal level. Hence, it was apparent that the examined immersive art spaces primarily attracted different types of visitors-consumers. Apart from that, these differences were also reflected to their visiting motivations and expectations. It was apparent that both 'highbrow' and 'lowbrow' expectations were found and, specifically, most of the sample anticipated from their visit escapist

and entertaining experiences. In that sense, it can be stated that ‘high’ and ‘popular’ tastes underlined visiting choices in the immersive art environment.

When talking about economic value, it is necessary to take this diversity into consideration. The ‘new’ audience not only illustrates a new kind of demand that discards the association of art spaces with mainly intellectual and aesthetic elements, but also presents new ways of appreciating the overall exhibition experience. Compared to the linear and static ways of ‘being’ in an exhibition space, the examined sample was satisfied among the different dimensions of escapism, entertainment, education and esthetics (Pine & Gillmore, 1999). The quantitative analysis indicated that escapism, which is the core element of immersive art displays (Wigley, 2016), increased satisfaction and positively affected the other experience realms. In fact, visitors who felt relaxed, moved and inspired, also reported to have improved their knowledge and were highly motivated to visit immersive exhibitions in the future. Therefore, it was evident that through the emotional and sensory stimulation, the different tastes and needs ‘entering’ the art space were met and motivated individuals to remain engaged in the future.

Taking into consideration the theoretical discussion concerning taste as a main driver of cultural consumption and the fact that cultural capital is an economic concept (Throsby, 1999), the potential economic value of immersive cultural goods is rather evident. Not only the immersive experience successfully addressed the different personal and social context of visitors, but also provided a multidimensional exposure to the exhibited displays. Meanwhile, the informal ‘learning by consuming’ that takes place in the immersive exhibition environment, has the potential to make individuals familiar with digital ways of exhibiting and increase their demand for them in the future. As Levy-Garboua and Montmarquette have mentioned, *“every new experience of a given art form reveals to the consumer an unexpected positive or negative increment in her taste for it”* (Levy-Garboua & Montmarquette, 2002, p. 9). In other words, the more people are exposed to the immersive art environment, the more they will understand it, appreciate it and remain engaged with it.

Overall, the empirical observations regarding the individual visiting experience can address the economic value of immersive art displays from a demand-sided perspective. The multi-sensory visiting experience was found to respond to the changing needs of art audiences that emerge under the realm of experience economy. In that sense, the immersive digital displays have the potential to create an exhibition environment that satisfies the diverse needs of visitor-consumers who are seeking for entertainment, education, as well as sensory stimulation from their visit (Davis et al., 1996). At the same time, ‘high-brow’ audiences can be satisfied intellectually and aesthetically

through their escapist experience and, with time and exposure, become familiar with immersive displaying practices in the future.

It is important to mention that the aforementioned implications assess demand mostly in relation to the social and cultural factors that were found to underline the individual visiting behavior. Such discussion is necessary as an important step towards understanding the complex nature of cultural consumption and the way it is influenced in the socioeconomic environment. The economic concepts were clearly highlighted in relation to the innovative way of engaging visitors with immersive digital displays. What is now important, is to address how such practices can generate economic value in the museum context.

4.2.2 The post-museum potential

Reflecting the economic value of immersive art displays on an institutional level, a discussion can take place in the context of ‘museum service experiences’ (Chan, 2013). As the shift from the white cube to the multimedia exhibition environment took place, the role of museums changed under new social and economic circumstances. In the theoretical framework it was highlighted how the ‘post-museum’ emerged to use spectacle for attracting new audiences, communicating and disseminating knowledge (Vergo, 1997; Marstine, 2008). In that sense, the more museum audiences value experience and base their future engagement on it, the more an ‘experience service’ is considered to be important for sustaining attendance and addressing the challenge of 21st century institutions to be visitor-centered and market-oriented.

The previous analysis generates fruitful remarks for understanding visiting behavior in relation to the ‘experience service’ that is provided in an immersive digital exhibition environment. As already discussed, the provision of a multi-sensory experience satisfied diverse needs while increasing the future potential attendance. Such an exhibition environment is certainly relevant in the museum context, especially when considering that experience is inherit in the intangible nature of the museum ‘product’. In other words, the site interpretation, knowledge provision and emotional stimulation in the museum environment encompasses the personal and functional values that are attributed by individuals during their visit (McIntosh, 1999; Chan, 2013).

This realization was especially evident for the postmodern art movements and the ‘white cube’ transition, by which, the traditional role of museums to conserve and restore collections shifted towards communication and visitor-orientation (Gheorghilas et al., 2017). Hence now, more than ever, museums need to provide services that respond to a diverse set of visitors with different attitudes and behaviors, while being updated and innovative in order to ‘compete’ with other leisure

activities (Skramstad, 2007; Dean, 2002). This challenge places the immersive discourse of this study in the foreground and proposes the adoption of immersive digital displays in the museum exhibiting environment as a 'new' kind of service that addresses the 'new' cultural consumer that was described previously.

Taking that into consideration the empirical analysis and the economic implications of immersive displays in relation to demand, an immersive exhibition setting could provide the 'museum service experience' that successfully addresses the personal, cultural and social frameworks that affect visitor's overall satisfaction. At the same time, the provision of escapist experiences achieves 'leisure learning' (Hooper-Greenhill, 1999) and generates understanding that motivates individuals to remain engaged in the future. Thus, in a potential immersive museum, an active taste formation can take place and influence future preferences, expectations and engagement.

In other words, the disciplinary power of museums to affect mindsets (Chen, 2013) could be achieved because of the immersive engagement achieved in the gallery space. This may have consequences to future demand and potentially discard the 'scholarly perception' that is traditionally associated with the museum space and often demotivates individuals from visiting (Miles, 1986). That being said, in the immersive museum both 'highbrow' and 'lowbrow' tastes will be met, while exposing individuals to an innovative exhibition environment, hence making them more familiar with it over time. The more visitors will experience a 'multimedia' museum environment, the more they will regard the museum visit as a leisure activity and choose to engage with it.

In the long-term, a shift from the 'scholarly perception' to the perception of a leisure museum visit that is innovative and stimulates the senses, can shift the 'cultural value' of the institution which, according to Throsby (1999), encompasses attributes such as *"aesthetic quality, spiritual meaning, social function, symbolic significance, historical importance, uniqueness and so on"* (Throsby, 1999, p. 167). Because of the complementary relationship between cultural and economic capital, such 'cultural value' can potentially generate economic value in the form of attendance and people's willingness to pay for their visit and preserve the institution. Having said that, the economic value of immersive art displays should be addressed, not only for their ability to provide a 'museum service experience' to a diverse set of cultural consumers, but also for their potential to re-conceptualize norms regarding museum visiting.

Overall, it can be argued that the adoption of immersive art displays could facilitate the role of museums as economic agents. At the same time though, the immersive museum environment encompasses elements that have a social and institutional relevance. As it was already proved, the

immersive exhibitions attracted a diverse set of visitors without posing any symbolic boundaries of social and economic class, education or art knowledge (Johnson, 1993). Compared to the white cube realm where only a few had the right to attend, the immersive art space gives access to previously excluded minority groups that found themselves absent and unrecognizable in gallery environments (Pearce, 2010). Thus, an immersive museum can be more inclusive and experienced by diverse social groups that do not necessarily belong to the category of the 'educated citizen'.

The direction of museums towards diverse access and adoption of new forms of behavior can place the museum visiting in accordance with the evolutionary development of civilization (Bennett, 2006). The participatory and multidimensional nature of the immersive exhibition experience is another democratic aspect to take into account. Opposed to the white cube, narrow learning that is differentiated from entertainment, the immersive gallery space stimulates emotional and intellectual responses that place the individual in the center of exhibition design (Miles, 1986; Housen, 1987). The active meaning-making makes visitors participants in their experience and indicates a 'participatory museum' that not only engages and empowers audiences, but also serves institutional goals that align with democratic and social values.

This, discards the formal environment of the white cube where visitors could 'look but not touch' and experience art in a static, linear way (Wigley, 2016). Considering also that the exhibition space is a reflection of society's power structures, the overlap between education and entertainment that is achieved through reflection, inspiration and emotional engagement (Tharp & Tharp, 2019), provides the active spectatorship that aligns with a society of 'cultural omnivorousness' (Gronemeyer, 2018). Hence, an immersive museum is, potentially, a democratic museum that democratizes cultural consumption by acknowledging diverse individuals and freeing the visiting behavior from earlier restrictive codes of curatorial authority, allowing the active construction of meaning and engagement (Bedford, 2016; Bennett, 2006).

Overall, both the empirical analysis and the theoretical discussion, have proved that immersive art spaces can increase engagement through the provision of unique experiences. For museums, this would imply that the adoption of immersive digital displays both as an economic and a social tool that responds to demand, while maintaining the institution's social and political relevance. Consequently, implementing immersive practices in the post-museum context could facilitate the changing institutional role that emerged under the economic and social circumstances of the 21st century that were described in the scope of this research.

5. Conclusions

5.1 Final Conclusion

The results that derived from the quantitative analysis, indicated that the visiting perception of immersive art displays was positive, with visitors reporting a high overall satisfaction and an 'optimal' experience that combined the realms of entertainment, education, escapism and esthetics. It was proved that the personal and social context significantly influenced their experience and, particularly, the educational level and expectations for an escapist and intellectual exhibition environment positively affected overall satisfaction. Nonetheless, although it was expected to find a relationship between satisfaction and visiting motivations, as well as prior academic, professional or personal art background, the empirical tests did not reveal significant correlations.

In addition to the above, it was found that visitors in the immersive exhibitions achieved 'leisure learning' because they generated knowledge and understanding when feeling moved, relaxed and inspired. At the same time, their escapist stimulation was found to significantly affect their motivation to visit similar exhibitions in the future. Therefore, the theoretical concepts regarding the multidimensional nature of experience were confirmed, as the different personal and social factors underlined satisfaction and the escapist, entertaining, educational and esthetic experience dimensions were important indicators of the overall immersive exhibition experience.

The positive perception of immersive art displays on an individual level led to the discussion concerning their economic and social value in the post-museum context. Combining the research results with the economic concept of cultural capital and demand in the arts, it was implied that the immersive digital displays could potentially be an efficient economic tool that increases engagement and shifts demand. Particularly in the post-museum framework, the immersive exhibition environment would provide an experience service that addresses diverse needs and makes the museum space a *"distinct place with a design that visitors to enter, and return again and again"* (Pine & Gillmore, 1999, p. 43).

Considering the diversity that characterizes the 21st century museum, having the ability to approach and address various demands is important for the creation of economic value. Meanwhile, a disciplinary role is achieved in the informal setting of learning and affects the familiarity and, thus, engagement with immersive art spaces in the future. In that sense, an immersive museum could potentially discard the 'scholarly perceptions' of a purely intellectual and aesthetic environment and promote the image of museums as places that provide leisure and unique experiences, while welcoming a socially and culturally diverse audience.

Therefore, it was implied, that from a post-museum perspective, immersive art displays could be used to enhance the institutional effort of providing both cognitive and emotional experiences, that re-conceptualize the museum's cultural value and increase people's willingness to preserve and visit the institution in the long-term. In addition to that, the societal and political relevance was highlighted in the immersive exhibition environment, which can successfully encompass the innovations of its era and place the individual experience in the center of curatorial attention.

The scope of this research addresses the individual visiting experience in order to understand cultural consumption and envision a future museum that successfully addresses economic and digital challenges. Nevertheless, a potential immersive museum can use digital displays, not only as an efficient economic tool for engaging visitor demand, but also as a tool for discarding old traditions of exclusivity in the arts. Being both an economic agent and a democratic space, such displaying practices in a museum context, would align with the postmodern initiative to transition from the 'white cube' to inclusive cultural institutions and democratize art experiences by encouraging citizens to be equally active. It is in the spirit of omnivorousness and diverse access, that museums could respond to their roles of preserving culture, disseminating knowledge and being a significant pillar of social life.

5.2 Limitations and Further Research

The discussion that was generated from this study should be brought in the attention of cultural economists in the effort to sustain an innovative, engaging and inclusive creative sector. The empirical evidence certainly shed light on the different factors that influence experience in the exhibition environment, and how the immersive art displays can address those. Nevertheless, as with any research, some limitations occurred during the process which should motivate further investigation in the subject.

The first limitation concerns the sample size which due to time and resource constraints could not be collected on a larger scale. In addition to that, the majority of the sample was Greek because the dissemination process was mostly held in Greece and, thus, it may not be representative for generalization. Moreover, because of the demographic diversity of the respondents, the surveys were translated in different languages and 27 of them were disseminated online to approach respondents faster. These language differences and the unequal distribution of the sample may imply inconsistencies that are related to validity and reliability of the replies.

Nevertheless, the results still generated statistically important remarks that can be discussed

and analyzed. Certainly, a broader generalization would require more extensive and detailed empirical research. However, the purpose of this study was not primarily to generalize, but rather to provide a deeper understanding into the immersive art experience in order to propose their potential implementation in the museum context.

Having said that, a future study is necessary, not only to resolve the aforementioned empirical issues, but also to provide further answers to further questions. To be more precise, one of the main questions that arise is that of the technical and financial difficulties regarding the adoption of immersive art displays in museums. Because the study was focused on the demand-side, an investigation of supply costs, including production, human resources, collaborations or admission fee, would be beneficial for a more holistic approach on the economic value of immersive art displays.

Additionally, it is recommended to examine the implication of integrating immersive displays in museums on a policy level. The questions that arise are mostly related to funding and whether such museum practices should be justified and supported publicly. Moreover, the fact that private production organizations would be required to realize a digital immersive environment, should address issues regarding what the private commercialization would indicate for the museum’s costs, as well as institutional purposes.

Overall, despite the limitations, the demand-sided analysis of the study is an important addition to empirical evidence regarding museum visiting and motivates further research in the directions of supply, policy and privatization. All of these issues require the attention of cultural economic studies in order to successfully address the issue of immersive practices and, consequently, respond to the challenges and changing roles of future museums.

References

Abbing, H. (2002). Why Are Artists Poor, The Exceptional Economy of the Arts. Amsterdam University Press.

Alexander, V. D. and Bowler, A. E. (2014). Art at the Crossroads: The Arts in Society and the Sociology of Art. *Poetics*, 43 (1), 1-19.

Bal, M., & Bryson, N. (2013). Looking in: the art of viewing. Routledge.

Becker, H. S. (2008). Art Worlds: Updated and Expanded. University of California Press.

Becker, G. S. (1993). Nobel lecture: The economic way of looking at behavior. *Journal of political economy, 101(3), 385-409.*

Bedford, L. (2016). The Art of Museum Exhibitions: How story and imagination create aesthetic experiences. Routledge.

Bedno, J., Bedno, E. (1999). Museum Exhibitions: Past Imperfect, Future Tense. Washington: The American Association of Museums.

Bennett, T. (1995). The Birth of Museum: History, Theory, Politics. Routledge.

Bennett, T. (2005). The exhibitionary complex. In *Thinking about exhibitions (pp. 71-93).* Routledge.

Bennett, T. (2006). Civic seeing: museums and the organization of vision. *A companion to museum studies*, *263.*

Bourdieu, P. (1985). The market of symbolic goods. *Poetics, 14 (1-2),* 13-44.

Bourdieu, P. (1986). *The forms of capital.*

Brida, J. G., Pulina, M., & Riaño, E. M. M. (2012). Measuring visitor experiences at a modern art museum and linkages to the destination community. *Journal of Heritage Tourism*, 7(4), 285-299. doi: 10.1080/1743873X.2012.709858.

Bryman, A. (2016). Social research methods. Oxford university press.

Cagol, S.C. (2015). Exhibition History and the Institution as a Medium. *Stedelijk Studies Journal.* Issue 2. Retrieved from https://stedelijkstudies.com/journal/exhibition-history-and-the-institution-as-a-medium/#_edn2.

Carrier, D., & Jones, D. (2016). The Contemporary Art Gallery: Display, Power and Privilege. Cambridge Scholars Publishing.

Chan, J. K. L. (2009). The Consumption of Museum Service Experiences: Benefits and Value of Museum Experiences. *Journal of Hospitality Marketing & Management*, 18, 173-196. Routledge.

Charman, H. (2016). Visitor Voices Between the Discursive and Immersive. Stedelijk Studies Journal. Issue 4. Retrieved from https://stedelijkstudies.com/journal/visitor-voices-discursive-immersive/#top.

Chen, K. T. N. (2013). The Disciplinary Power of Museums. *International Journal of Science and Humanity, 3(4).*

Clough, G. W. (2013). Best of both worlds. Museums, Libraries, and Archives in a Digital Age. *Washington: Smithsonian Institution* critique. *Museological Review, 1*(1), 1-13.

Coffee, K. (2007). Audience research and the museum experience as a social practice. *Museum management and curatorship, 22(4)*, 377-389.

Danchev, A., & Lisle, D. (2009). Introduction: Art, politics, purpose. *Review of International Studies, 35*(4), 775-779.

Davies, H. M., Onorato, R. J., & Davies, H. M. (1997). *Blurring the boundaries: Installation art, 1969-1996*. Museum of Contemporary Art.

Davis, B., Trant, J., & van der Starre, J. (1996). *Introduction to multimedia in museums. International Council of Museums (ICOM), Multimedia Working Group*.

Dean, D. (2002). *Museum exhibition: Theory and practice.* Routledge.

Dernie, D. (2006). *Exhibition design*. Laurence king publishing.

Dierking, L. D., & Falk, J. H. (1992). *Redefining the museum experience: the interactive experience model*. *Visitor Studies*, 4(1), 173-176.

Duclos, R. (1994). *Postmodern/postmuseum: New directions in contemporary museological critique. Museological Review, 1(1),* 1-13.

Dziekan, V. (2012). *Virtuality and the Art of Exhibition: Curatorial Design for the Multimedial Museum*. Intellect.

Falk, J.H. (2016). Identity and the Museum Visitor Experience. Routledge.

Ferbabdez-Blanco, V., & Prieto-Rodriguez, J. (2011). Museums. *In Towse, R. (Ed.). (2011). A handbook of cultural economics.* Edward Elgar Publishing.

Frey, B. S., & Meier, S. (2006). The economics of museums. *Handbook of Economics of Art and Culture, 1,* 1017-1047.

Gheorghilas, A., Dumbraveanu, D., Tudoricu, A., & Craciun, A. (2017). The challenges of the 21st century museum: dealing with sophisticated visitors in a sophisticated world. *International Journal of Scientific Management and Tourism,* 3-4.

Grau, O. (2003). Virtual Art: From Illusion to Immersion. The MIT Press.

Graves, J. B. (2005). Cultural Democracy: The Arts, Community and the Public Purpose. University of Illinois Press.

Gronemeyer, W. (2018). The Curatorial Complex: Social Dimensions of Knowledge Production. Verlag Wilhelm Fink.
Gurian, E. H. (2006). Civilizing the museum: The collected writings of Elaine Heumann Gurian. Routledge.
Hansen, T. (2011). (Re)Staging the Art Museum. Revolver Publishing.
Hooper-Greenhill, E. (1999). Education, Communication and interpretation: towards a critical pedagogy in museums. The educational role of the museum. pp. 3-27, London: Routledge.
Hooper-Greenhill, E. (2000). Museums and the interpretation of visual culture. London: Routledge.
Hooper-Greenhill, E. (2006). Studying visitors. *A companion to museum studies*, 362-376.
Housen, A. (1987). Three methods for understanding museum audiences. *Museum Studies Journal*, *2*(4), 41-49.
Hutter, M. (2011). Experience Goods, *in: R.Towse (ed.). A Handbook of Cultural Economics,* Second Edition, Cheltenham: Edward Elgar Publishing, 2011, p.211-215.
Johnson, R. (1993). Pierre Bourdieu. The Field of Cultural Production. Essays on Art and Literature.
Kaprow, A. (1956). Assemblages, Environments, and Happenings. New York: Harry N. Abrams.
Köster, P. R., & Arroyo, S. C. (2000). Preferences And Cultural Consumption.
Leonardo Da Vinci 500 Years of Genius. (2019). Retrieved from http://www.leonardodavinci.gr/part2.html.
Levy-Garboua, L., & Montmarquette, C. (2002). The demand for the arts. Cirano.
Marstine, J. (Ed.). (2008). New museum theory and practice: an introduction. John Wiley & Sons.
McIntosh, A.J. (1999). Into the tourist's mind: Understanding the value of heritage experience. *Journal of Travel & Tourism Marketing, 8(1)*, 41-46.
McManus, P. (1996). Museum and visitor studies today. *Visitor studies: theory, research and practice*, *8*(1), 1-12.
McRobert, L. (2007). Char Davies' Immersive Virtual Art and the Essence of Spatiality. University of Toronto Press.
Messer, T. M. (1989). New York's Guggenheim: An Essay in Responsible Populism. *Museum International*, *41*(3), 145-149.
Miles, R. S. (1986). Museum audiences. *Museum Management and Curatorship*, *5*(1), 73-80.
Mitchell, B. (2010, February). The immersive artistic experience and the exploitation of space. In *Proceedings of the 1st international conference on Ideas before their time: connecting the past and present in computer art* (pp. 98-107). BCS Learning & Development Ltd..

Nelson, P. (1970). Information and consumer behavior. *Journal of political economy*, *78*(2), 311-329.

O'doherty, B. (1999). Inside the white cube: the ideology of the gallery space. University of California Press.

O'Donnell, N. H. (2016). Space as curatorial practice: the exhibition as a spatial construct: Ny kunst i tusen år (1970), Vår verden av ting-objekter (1970) and Norsk middelalderkunst (1972) at Henie Onstad Kunstsenter.

Pearce, S. (Ed.). (2010). Objects of knowledge. A&C Black.

Pekarik, A. J., Doering, Z. D., & Karns, D. A. (1999). Exploring satisfying experiences in museums. *Curator: The Museum Journal*, *42*(2), 152-173.

Peterson, R. A. and Kern, R. M. (1996). Changing highbrow taste: From snob to omnivore. *American sociological review*. 900-907.

Pine, B.J.I. and J.H. Gilmore (1999). The Experience Economy. Work is Theatre and Every Business a Stage. Harvard Business Press.

Pratt, C.A. (2013). Space and place in the digital creative economy. *Handbook of the Digital Creative Economy. Cheltenham, Northampton.*

Prentice, R., Davies, A., & Beeho, A. (1997). Seeking generic motivations for visiting and not visiting museums and like cultural attractions. *Museum management and curatorship, 16(1),* 45-70.

Radder, L. (2015). An Examination of the Museum Experience Based on Pine and Gilmore's Experience Economy Realms. *Journal of Applied Business Research.*

Ray, J. (2016). Digital curation in museums. Department of Museum Studies. Johns Hopkin Univeristy. Washington, District of Columbia, USA.

Reiss, J. H. (2001). From margin to center: The spaces of installation art. Mit Press.

Roose, H., Van Eijck, K., Lievens, J. (2012). Culture of distinction or culture of openness? Using a social approach to analyze the social structuring of lifestyles. *Poetics, 40(6),* 491-513.

Rubiales, E.P. (2014). Essays on the Art Museum Experience: a cultural sociology perspective. Department d' Empresa Centre d' Estudis I Recerca d' Humanitats.

Ruddle, R.A., Randall, S.J., Payne, S.J., & Jones, D.M. (1996 December). Navigation and spatial knowledge acquisition in large-scale virtual buildings: An experimental comparison of immersive desk-top displays. In Proceedings of the 2nd International FIVE Conference, 125-136.

Sheng, C. W., & Chen, M. C. (2012). A study of experience expectations of museum visitors. *Tourism management*, *33*(1), 53-60.

Simao, E., Soares, C. (2018). Trends, Experiences and Perspectives in Immersive Multimedia and Augmented Reality (Advances in Multimedia and Interactive Technologies (AMIT)). IGI Global. 1st Edition.

Simon, N. (2010). The Participatory Museum. Museum Santa Cruz, California.

Skramstad, H. (2007). The exhibiting dilemma. *Technology and Culture*, *48*(3), 603-611.

Skrubbe, J.S. (2016). Curating Differently: Feminisms, Exhibitions and Curatorial Spaces. Cambridge Scholars Publishing.

Smith, C. (2014). Post-modernising the museum: the ration shed. *Historical Encounters*, *1*(1), 32-49.

Summers, D. (2003). Real spaces: World art history and the rise of Western modernism (p. 664). London: Phaidon.

Sundbo. J., Sorensen. F. (2013). Handbook on the Experience Economy. Edward Elgar UK.

Tharp, B. M., & Tharp, S. M. (2019). Discursive Design: Critical, Speculative, and Alternative Things. Design Thinking, Design Theory.

Throsby, D. (1994). The production and consumption of the arts: A view of cultural economics. *Journal of economic literature* 32 (1), 1-29.

Throsby, D. (1999). Cultural Capital. *Journal of cultural economics*, 23 (1-2), 3-12.

Towse, R. (2010). A Textbook of Cultural Economics. Cambridge University Press.

Towse, R. (2011). A Handbook of Cultural Economics, Second Edition. Edward Elgar Publishing.

UNESCO. (2000a). Culture, Trade and Globalization: Questions and Answers, Paris, UNESCO.

Van Gogh Alive. (2019). Retrieved from: https://www.vangoghalive.gr/indexen.html.

Van Gogh The Immersive Experience. (2019). Retrieved from: http://www.expovangogh.be/en/ .

Vergo, P. (Ed.). (1997). New museology. Reaktion books.

Vogel, F. (2016). On the Canon of Exhibition History. *Re-envisioning the Contemporary Art Canon: Perspectives in a Global World*, 189.

Wigley. M. (2016). Discursive versus Immersive: The Museum is the Massage. Stedelijk Studies Issue 4. Retrieved from: https://stedelijkstudies.com/journal/discursive-versus-immersive-museum-massage/.

Appendices

Appendix 1: Description of the examined immersive art exhibitions.

	Exhibition 1	**Exhibition 2**	**Exhibition 3**
Title	***Van Gogh Alive-The Experience***	***Leonardo Da Vinci-500 Years of Genius***	***Van Gogh The Immersive Experience***
Location	Thessaloniki International Exhibition Center, Thessaloniki, Greece	Old Depot of OSY in Gazi, Athens, Greece	La Bourse de Bruxelles, Brussels , Belgium
Description	*"Van Gogh Alive-The Experience will stretch the definition of the word "exhibition" as it stimulates the senses and opens the mind. From start to finish, visitors are surrounded by a powerful and vibrant symphony of light, colour and sound that compels them to leave the world behind and immerse themselves in what has been called an "unforgettable" multi-sensory experience."*	*"An emblimatic building of the center of Athens is transformed to accommodate this unique experience. The experience, you will have a stunning audiovisual, experiential experience that will present you the life and work of this great artist and inventor."*	*"Thanks to the most recent virtual projection technology you will become a part of the spectacular, incomparable universe of Vincent Van Gogh. The experience will let you discover the life of the artist in a new way. You will participate in a unique sound and light show, that will immerse you in the world renowned and familiar images of Vincent Van Gogh. No one will be left untouched."*
Immersive Digital Displays	Moving images, lights and sound.	Moving images, lights and sound.	Moving images, lights and sound.
Website	https://www.vangoghalive.gr/indexen.html	http://www.leonardodavinci.gr/part2.html	http://www.expovangogh.be/en/
Dates	23/11/2018-20/01/2019	30/11/2018-ongoing	10/10/2018-10/03/2019
Producer	Grande Exhibitions and Lavris Ltd, Sensory4tm	Grande Exhibitions and Lavris Ltd, Sensory4tm	ExhibitionHub, MB Presents, Dirty Monitor
Survey Dissemination	Dissemination after visit	Dissemination online	Dissemination after visit
Dates of Research Implementation	Day 1: 18/12/2018, 15:00-19:00 Day 2: 19/12/2018,11:00-14:00, 16:00-18:00 Day 3: 20/12/2018, 12:00-15:00	The online surveys were distributed throughout the month of February, 2019.	Day 1: 22/02/2019, 13:00-17:00 Day 2: 23/02/2019, 14:00-17:00
Number of Collected Surveys	196	27	74
Number of Valid Surveys	188	27	72
Total Sample	287		

Appendix 2: Questionnaire

1)From the scale of 1 to 5 how much would you rate this exhibition?

□1=Very Bad □2=Bad □3=Good □4=Very Good □5=Excellent

2)How did you find out about this exhibition? (Check all that apply)

□Social Media □TV □Friend/Colleague/Relative
□Internet □Other. *Specify*: …….

3)What motivated you to visit the exhibition today? (Check all that apply)

□I wanted to have fun □I am interested in the subject □I wanted to visit a touristic attraction
□I am wanted to learn more about the subject □Other. *Specify*: ……..

4)Who did you visit the exhibition with? (Check all that apply)

□ Alone □With friends □With family members □Other. *Specify:*…..…

5)What is your age group?

□ less than 12 years old □12-17 years old □18-24 years old □25-34 years old
□35-44 years old □45-54 years old □55-64 years old □65-74 years old
□more than 75 years old

6)What is your gender?

□Male □Female □Other. *Specify*: …… □Prefer not to answer

7)How long did you stay in the exhibition space?

□Around 30 mins □One to two hours □More than two hours

8)Please indicate the extent to which you agree or disagree with the following statements based on your experience in the exhibition:

During the exhibition….	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
During my visit I felt engaged in the immersive experience.					
During my visit I felt moved or inspired.					
During my visit I relaxed and was able to reflect, contemplate and recharge.					
During my visit I spent quality time with people and got to visit a major attraction in the area.					
During my visit I improved my knowledge or understanding.					
I want to visit this type of exhibitions again in the future.					

9)Have you visited this/similar art exhibitions before?

□Yes. Which one? *Specify*: ……..……...How many times? *Specify:* ……

□No

10)From the scale of 1 to 5 how often do you use technology (phone/internet/social media) daily?

□1=barely □2=moderately □3=regularly □4=very regularly □5=excessively

11)Do you have a background on art (hobby/academic/professional/...)?

□Yes. *Specify*: ……...

□No

12)What is the highest degree or level of school you have completed/you are currently enrolled in?

□No schooling completed □Elementary School □Secondary School
□High School □Bachelor Degree □Master Degree
□Phd □Prefer not to answer

13)What is your current employment status?

□Employed □Self-employed □Not Working □Student □Unable to work
□Retired □Other. *Specify*: ……...……. □ Prefer not to answer

14)Overall, would you say the exhibition met your expectations?

□Yes. **What did you expect?**

……
……
……

□No. **Why not?**

……
……
……

15)What is your zip code or the area you are currently living in? *Specify*.…….……..……

Thank you!

Appendix 3: Coding

1)From the scale of 1 to 5 how much would you rate this exhibition?
1=Very Bad 2=Bad 3=Good 4=Very Good 5=Excellent

2)How did you find out about this exhibition? (multiple answers: 1=yes, 0=no)

Social Media TV Recommendation (Friend/Colleague/Relative)
Internet other: Street ad other: not specified

3)What motivated you to visit the exhibition today? (multiple answers: 1=yes, 0=no)
I wanted to have fun I am interested in the subject I wanted to visit a touristic attraction
I wanted to learn more about the subject Other: It was recommended to me
Other: not specified

4)Who did you visit the exhibition with? (multiple answers→ 1=yes, 0=no)
Alone With friends With family members Other: With partner
Other: With school Other: not specified

5)What is your age group?
1=less than 12 years old 2=12-17 years old 3=18-24 years old 4=25-34 years old
5=35-44 years old 6=45-54 years old 7=55-64 years old 8=65-74 years old
9=more than 75 years old

6)What is your gender?
1=Male 2=Female 3=Other 4=Prefer not to answer

7)How long did you stay in the exhibition space?
1=Around 30 minutes 2=One to two hours 3=More than two hours

8)Please indicate the extent to which you agree or disagree with the following statements based on your experience of the exhibition?

1=Strongly Disagree 2=Disagree 3=Neither Agree nor Disagree
4=Agree 5=Strongly Agree

a)During my visit I felt engaged in the immersive experience
b)During my visit I felt moved or inspired
c)During my visit I relaxed and was able to reflect, contemplate and recharge
d)During my visit I spent quality time with people and got to visit a major attraction in the area
f)During my visit I improved my knowledge or understanding
f)I want to visit this type of exhibitions again in the future

9)Have you visited this/similar art exhibitions before? (1=yes, 0=no)
Yes/No
I have visited the same exhibition before (1=yes, 0=no)

Q10)From the scale of 1 to 5 how often do you use technology (phone/internet/social media) daily?

1=barely 2=moderately 3=regularly 4=very regularly 5=excessively

11)Do you have a background on art (hobby/academic/professional/...)? (1=yes, 0=no)

Yes/No
Yes: I have academic background on art
Yes: I have professional background on art
Yes: I have an art-related hobby or general interest in art

12)What is the highest degree or level of school you have completed/you are currently enrolled in?

1=No schooling completed 2=Elementary School 3=Secondary School
4=High School 5=Bachelor 6=Master
7=Phd 8=Prefer not to answer

13)*What is your current employment status?*

1=Employed 2=Self-employed 3=Not Working 4=Student 5=Retired
6=Unable to work 7=Other 8=Prefer not to answer

14)Overall, would you say the exhibition met your expectations? (1=yes, 0=no)

Yes/No
I expected a unique, sensory exhibition experience
I expected to be inspired and moved
I expected to see immersive and interactive audiovisuals of high quality
I expected to learn more about the artist's life and work
I expected to relax, enjoy and have fun
I expected a big space in which I can spend a lot of time
I expected to see original paintings

15)Area of residency

1=Greece 2=Belgium 3=France 4=UK 5=Ireland 6=Austria 7=Swiss
8=Netherlands 9=Luxembourg 10=Denmark 11=Italy 12=United States
13=Australia 14=Mexico 15=Canada

Appendix 4: Operationalisation of variables

Personal Context of Visitors				
Concept	**Theory**	**Data source**	**Variable**	**Notes**
Demographic Data: Gender	Hood (1983) Falk & Dierking (1992) Falk (2016)	*Q6)What is your gender?*	Gender	Independent
Demographic Data: Age	Hood (1983) Falk & Dierking (1992) Falk (2016)	*Q5)What is your age group?*	Age	Independent
Demographic Data: Level of Education	Hood (1983) Falk & Dierking (1992) Falk (2016)	*Q12)What is the highest degree or level of school you have completed/you are currently enrolled in?*	Education	Independent
Demographic Data: Level of Employment	Hood (1983) Falk & Dierking (1992) Falk (2016)	*Q13)What is your current employment status?*	Employment	Independent
Demographic Data: Place of Residence	Hood (1983) Falk & Dierking (1992) Falk (2016)	*Q15)What is your area of residency?*	Residence	Independent
Demographic Data: Prior experience with immersive art exhibitions	Hood (1983) Falk & Dierking (1992) Falk (2016)	Q9)Have you visited this/similar art exhibitions before?	Prior Visits	Independent
Demographic Data: Knowledge or experience with art	Hood (1983) Falk & Dierking (1992) Falk (2016)	*Q11)Do you have a background on art (hobby/academic/professional/...)?*	Art Background	Independent
Demographic Data: Relationship with technology	Hood (1983) Falk & Dierking (1992) Falk (2016)	*Q10)From the scale of 1 to 5 how often do you use technology (phone/internet/social media) daily?*	Technology Use	Independent
Psychographic Data: Motivations to visit	Hood (1983) Falk & Dierking (1992) Falk (2016)	*Q3)What motivated you to visit the exhibition today?*	Entertaining Motivations Educational Motivations Touristic Motivations Social Motivations	Independent
Psychographic Data of Visitors: Expectations before visiting	Hood (1983) Falk & Dierking (1992) Falk (2016)	*Q14)Overall, would you say the exhibition met your expectations? Why yes/no?*	Entertaining Expectations Educational Expectations Escapist Expectations Esthetic Expectations	Independent
Social Context of Visitors				
Concept	**Theory**	**Data source**	**Variable**	**Notes**
Social Context on a macro level: Social perception of exhibition	Falk & Dierking(1992) Falk(2016)	Q2)How did you find out about this exhibition?	Information Source	Independent

Social Context on a micro level: Visiting social group	Falk & Dierking(1992) Falk (2016)	Q4)Who did you visit the exhibition with?	Visiting Company	Independent
Experience in the Exhibition Environment				
Concept	**Theory**	**Data source**	**Variable**	**Notes**
"Optimal" Exhibition Experience	*Pine & Gillmore (1999)* *Falk & Dierking (1992)* Falk, Scott, Dierking, Rennie, Jones, (2004)	*Q1)From the scale of 1 to 5 how much would you rate this exhibition?*	*Overall Satisfaction*	*Dependent*
Experience dimension of Education and Entertainment	*Pine & Gillmore (1999)* *Housen (1987)* *Hooper-Greenhill (1999)* *Pekarik, Doering, Karns (1999)*	*Q8c)During my visit I relaxed and was able to reflect, contemplate and recharge* *Q8e)During my visit I was exposed to new ways of thinking about art* *Q8f)During my visit I improved my knowledge or understanding*	*Edutainment*	*Independent*
Experience dimension of Escapism	*Pine & Gillmore (1999)* *Mitchell* *Tharp (2018)* *Charman (2016)* *Pekarik, Doering, Karns (1999)*	*Q8a)During my visit I felt engaged in the immersive experience* *Q8b)During my visit I felt moved or inspired* *Q8g)During my visit I stimulated my creativity*	Escapism	*Independent*
Experience dimension of Esthetics	*Pine & Gillmore (1999)* *McDonald (2013)* *Vergo (1997)* *Pekarik, Doering, Karns (1999)*	*Q8d)During my visit I spent quality time with people and got to visit a major attraction in the area*	Esthetics	*Independent*
Motivation to revisit or learn more about the subject	Pine & Gillmore (*1999*)	*Q8h)I want to visit this type of exhibitions again in the future* *Q8i)The exhibition motivated me to know more about what I was seeing*	Future Engagement	*Independent*
Duration of the Experience	Falk (2016)	*Q7)How long did you stay in the exhibition space?*	Visiting Duration	*Independent*

Appendix 5: Simple Linear Regression Analysis based on *Educational Level*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B	
		B	Std. Error	Beta	tt	Sig.	Lower Bound	Upper Bound
1	(Constant)	3,843	,145		26,417	,000	3,556	4,129
	What is the highest degree or level of school you have completed/you are currently enrolled in?	,070	,035	,118	1,996	,047	,001	,139

a. Dependent Variable: Overall Satisfaction

Appendix 6: Simple Linear Regression Analysis based on *Educational Level* excluding 'Students'

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,709	,221		12,283	,000
	What is the highest degree or level of school you have completed/you are currently enrolled in?	,356	,054	,414	6,550	,000

a. Dependent Variable: Overall Satisfaction

Appendix 7: Independent Samples T-Test based on *Expectations*

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		FF	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Overall Satisfaction	Equal variances assumed	1,078	,300	-6,755	275	,000	-1,047	,155	-1,352	-,742
	Equal variances not assumed			-5,554	33,401	,000	-1,047	,189	-1,430	-,664

Appendix 8: Simple Linear Regression Analysis based on *Expectations*

Appendix 8.1: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Expectations*

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3,200	,146		21,863	,000	2,912	3,488
	Overall, would you say the exhibition met your expectations?	1,047	,155	,377	6,755	,000	,742	1,352

a. Dependent Variable: Overall Satisfaction

Appendix 8.2: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Expectations for a unique sensory stimulating experience*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4,097	,053		76,972	,000
	I expected a unique and sensory stimulating exhibition experience	,535	,203	,157	2,631	,009

a. Dependent Variable: Overall Satisfaction

Appendix 8.3: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Expectations of being inspired and moved*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4,110	,053		77,743	,000
	I expected to be inspired and moved	,506	,244	,124	2,072	,039

a. Dependent Variable: Overall Satisfaction

Appendix 8.4: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Expectations to see original paintings.*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4,167	,051		81,440	,000
	I expected to see original paintings	-1,310	,322	-,238	-4,069	,000

a. Dependent Variable: Overall Satisfaction

Appendix 9: Simple Linear Regression Analysis based on *Expectations*

Appendix 9.1: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Escapism in the form of "feeling engaged in the immersive experience"*.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,522	,225		11,196	,000	2,079	2,966
	During my visit I felt engaged in the immersive experience	,376	,052	,395	7,214	,000	,274	,479

a. Dependent Variable: Overall Satisfaction

Appendix 9.2: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Escapism in the form of "feeling moved or inspired"*.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,723	,190		14,328	,000	2,349	3,098
	During my visit I felt moved or inspired	,352	,047	,411	7,556	,000	,260	,444

a. Dependent Variable: Overall Satisfaction

Appendix 9.3: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Entertainment.*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,624	,226		11,601	,000	2,178	3,069
	During my visit I relaxed and was able to reflect, contemplate and recharge	,353	,052	,373	6,745	,000	,250	,456

a. Dependent Variable: Overall Satisfaction

Appendix 9.4: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Esthetics.*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,685	,205		13,093	,000	2,281	3,089
	During my visit I spent quality time with people and got to visit a major attraction in the area	,358	,050	,394	7,140	,000	,259	,456

a. Dependent Variable: Overall Satisfaction

Appendix 9.5: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Education.*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,812	,187		15,048	,000	2,444	3,179
	During my visit I improved my knowledge or understanding	,334	,046	,395	7,212	,000	,243	,425

a. Dependent Variable: Overall Satisfaction

Appendix 9.5: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Future Engagement.*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,433	,194		12,520	,000	2,050	2,815
	I want to visit this type of exhibitions again in the future	,403	,045	,470	8,909	,000	,314	,492

a. Dependent Variable: Overall Satisfaction

Appendix 10: Non-significant tests that reject hypothesis 3 and 4

Appendix 10.1: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Art Background*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4,112	,070		59,017	,000	3,975	4,249
	Q12)Do you have a background on art?	-,005	,106	-,003	-,049	,961	-,214	,204

a. Dependent Variable: Q1: From the scale of 1 to 5 how much would you rate this exhibition?

Appendix 10.2: Simple Linear Regression Analysis to predict *Overall Satisfaction* based on *Visiting Motivations*

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
I wanted to have fun	,238	,273	,118	,874	,383	-,299	,776
I am interested in the subject	,166	,279	,091	,596	,552	-,383	,715
I am a tourist	,138	,363	,029	,381	,704	-,577	,853
I am a researcher	-,176	,366	-,037	-,482	,630	-,896	,544
I am visiting with school	,371	,399	,078	,930	,353	-,415	1,158
Other	,127	,351	,032	,362	,718	-,565	,819

a. Dependent Variable: Overall Satisfaction