YAŞAR UNIVERSITY
GRADUATE SCHOOL

MASTER IN ART THESIS

THE EFFECT OF VIRTUAL REALITY EXPERIENCE OF MUSEUM VISIT ON TOURISM CUSTOMERS AFTER VR

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PRESENTATION DATE: 19.07.2022

BORNOVA / İZMİR
MONTH 2022

We certify that, as the jury, we have read this thesis and that in our opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science /Master of Arts/ the Doctor of Philosophy/Proficiency in Art.

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ABSTRACT

THE EFFECT OF VIRTUAL REALITY EXPERIENCE OF MUSEUM VISIT ON TOURISM CUSTOMERS AFTER VR

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HAZIRAN 2022

In this period when technology and the internet are developing so rapidly, new media environments have gradually increased their influence in all sectors and all areas. Marketing, which is especially emphasized in this report, has been an area that has progressed rapidly and has adapted to technological developments in this process. With digitization, companies have become able to interact more and more rapidly with brands, cand onsumers, and they have continued to move their strategies into the digital environment. In this way, companies aim to present the experiences they offer to customers and visitors in physical environments in a virtual environment. The situation in the tourism sector is developing in this way. In particular, the tourism sector, one of the sectors most affected by the Covid-19 process, has started to take greater steps in marketing itself in the digital environment. In museology, which is an important branch of tourism, marketing and promotion processes have progressed by rapidly increasing their presenin digital. Virtual reality technology, which is the most used in this field, aims to make visitors experience what they feel physically in the museums they visit, and their experiences in a virtual environment. This study, it was aimed to find out how much the museum industry can adapt to Virtual Reality technology, how successful it is in making experiences, and whether it has achieved success of attracting visitors to their museums. The data obtained through the survey study were analyzed and presented in the report results.

As a result of the research, it is seen that the age group has no effect on the virtual museum effect, but the ational status has a remarkable effect on the virtual museum

visit. The fact that virtual museum visits do not direct visitors to visit physically may create a change that may affect the tourism economy in the future.

Keywords: Marketing, Experiential Marketing, Digital Marketing, Museology, Tourism, Virtual

ÖZ

MÜZE ZİYARETLERİNDE SANAL GERÇEKLİK DENEYİMİNİN SANAL GERÇEKLİK SONRASI TURİZM MÜŞTERİLERİNE ETKİSİ

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HAZIRAN 2022

Teknolojinin ve internetin bu kadar hızlı geliştiği bu dönemde, yeni medya ortamları tüm sektörlerde ve tüm alanlarda etkisini giderek artırmıştır. Bu raporda özellikle vurgulanan pazarlama, bu süreçte hızla ilerleyen ve teknolojik gelişmelere uyum sağlayan bir alan olmuştur. Dijitalleşmeyle birlikte şirketler markalarla, tüketicilerle her geçen gün daha hızlı etkileşime girmiş ve stratejilerini dijital ortama taşımaya devam etmiştir. Bu sayede firmalar, müşterilerine ve ziyaretçilere fiziksel ortamlarda sundukları deneyimleri sanal ortamda sunmayı hedefliyor. Turizm sektöründeki durum bu şekilde gelişiyor. Özellikle Covid-19 sürecinden en çok etkilenen sektörlerden biri olan turizm sektörü, dijital ortamda kendini pazarlamada daha büyük adımlar atmaya başladı. Turizmin önemli bir kolu olan müzecilikte pazarlama ve tanıtım süreçleri dijital ortamda hızla varlığını artırarak ilerlemiştir. Bu alanda en çok kullanılan sanal gerçeklik teknolojisi, ziyaretçilere ziyaret ettikleri müzelerde fiziksel olarak hissettiklerini, sanal ortamda deneyimlerini yaşatmayı hedefliyor. Bu çalışmada, müze endüstrisinin Sanal Gerçeklik teknolojisine ne kadar adapte olabileceği, deneyim oluşturmada ne kadar başarılı olduğu ve müzelerine ziyaretçi çekme başarısına gerçekten ulaşıp ulaşmadığını ortaya çıkarmak amaçlanmıştır. Anket çalışması ile elde edilen veriler analiz edilerek rapor sonuçlarında sunulmuştur.

Araştırma sonucunda sanal müze etkisi üzerinde yaş grubunun etkisinin olmadığı ancak sanal müze ziyareti üzerinde eğitim durumunun dikkate değer bir etkisinin olduğu görülmektedir. Sanal müze ziyaretlerinin ziyaretçileri fiziksel olarak ziyarete yönlendirmemesi, gelecekte turizm ekonomisini etkileyebilecek bir değişim yaratabilir

Anahtar Kelimeler: Pazarlama, Deneyimsel Pazarlama, Dijital Pazarlama, Müzecilik, Turizm, Sanal Gerçeklik

THANKS TO…

I thank my advisor Prof. Dr. Ige Pirnar for guiding me in structuring this thesis with the core content, for helping me to complete my thesis on time, and for taking the necessary time to provide valuable input and clarifications to my thesis questions. I would also like to thank Prof.Dr. Engin Deniz Eris for always providing moral support and trusting me.

In this process, I would like to express my gratitude to my dear family, who supported me morally, always believed me, and made me feel strong.

DİLAY KUDVER

İZMİR, 2022

TEXT OF OATH

I declare and honestly confirm that my study, titled “The Effect Of Vırtual Realıty Experıment Of Museum Visit On Tourism Customers After Vr”and presented as a master’s thesis, has been written without applying to any astance inconsist with scientific ethics and traditions. I declare, to the best of my knowledge and belief, that all content and ideas drawn directly or indirectly from external sources are indicated in the text and listed in the list of reference.

DİLAY
KUDVER

19.07.2022

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

SYMBOLS AND ABBREVIATIONS

Virtual Reality (VR)

CHAPTER 1

INTRODUCTION

When we consider today's technology, we cannot deny that there have been great developments and changes between the past and the present. However, the rapid development and spread of technology have affected many areas and people haveadopted it quickly.

The rapid advancement of technology has increased the interaction and the interest of people in devices such as computers and phones. It was still not enough for people to meet the computer and step into the virtual world. As Mazuryk and Gervautz (1999) put it, people always want more. They want to step into this world and interact with it, rather than just watching a picture on the monitor. This technology that people interact with and which has become overwhelmingly popular and fashionable over the past decade is called Virtual Reality (VR).

VR rapidly expanded in its development in the early 1990s, attracted a lot of attention, and became popular with them. Today, people use VR in many sectors and areas. Because this technology is more remarkable, and we can say that this technology will develop and change further in the future. This sector, which is developing rapidly and will continue to develop, is preferred by many companies and institutions.

VR opens new horizons for engineers in solving engineering problems. What we thought could be the subject of science fiction movies a quarter-century ago is being implemented one by one, even with today's technologies. VR opens the door to a three-dimensional world and leaves two-dimensional depictions and drawings a thing of the past. Beyond that, it offers the opportunity to wander and walk in an unreal space

created by our own hands (Bayraktar, 2007). Some definitions and explanations are given for VR (Mazuryk and Gervautz, 1999):According to Greenbaum (1992), VRis an alternate world filled with computer-generated images that respond to human movements. These simulated environments are generally visited with the aid of an expensive data suit that features stereophonic video goggles and fiber-optic gloves.

1) Another definition made in the same year is as Coates said in 1992; VR is an electronic simulation of environments that allow the end-user to interact in realistic three-dimensional situations, while at the same time experienced through head-worn glasses and wired clothing.

Increasing the use of VRhas many effects. The most important of these is the ability of VR technology to concentrate empathy and understanding and thus the ability of other media to promote intercontinental care (Altun, 2019 as cited by Milk, 2015a). It offers many advantageous opportunities for institutions and companies. VR, which has become an experience for the consumer, is the first choice of companies where customer experience is at the forefront and who do their best to present the experience to customers in the best possible way. The consumer is there for a lifelike experience. As Baukal (2013) said, The lowest and least abstract level of multimedia is VR, which is so realistic, the experience is almost like being there. "
While the development and use of VRin many areas and sectors have increased, increasing use in the tourism sector has increased, especially during the COVID-19 process, and has been used as a marketing tool in the tourism sector. As I will discuss in this article, many popular and non-popular museums have opened their doors to visitors online in the virtual world due to travel restrictions. Therefore, interest in the virtual world has been more during this period.

The framework of this thesis is divided into five parts: introduction, review of the literature, research framework, research method and analysis, and conclusion. The first

part, the introduction, explains the rationale of the chosen topic and introduces the thesis.

In the first part of this thesis, especially the impact of VR on marketing and the articles on VRincluded in the literature are discussed. There are manytypes many typesch and articles on this subject. VRalone has gained an important place in the literature for years. Likewise, new perceptions have been formed in marketing recently, and this has led researchers to study VRused in marketing. In this research, in which we will also see the studies about VRused in marketing in the tourism sector, we will discuss the articles written about the effect and use of VRon marketing in the field of 'museology'.

In the third part, this report explains a description of the theoretical framework and its incluobjectives of empirical research, research framework and dimensions, research model, and research methodology. This research has some questions about this subject and linked to these questions, some hypotheses are defined. This part shows us these main research subjects and questions.

In the fourth part of this research, the process of the research is mentioned. It emphasizes many issues such as how the research processes are, how the data is collected, how the survey is prepared, how to reach and the people to be surveyed. The statistics obtained as a result of the surveys, their anaand lysis, explain whether the established hypotheses are supported or not.

In the last part, he deals with the conclusion part. He explains the result of the thesis. Based on these, he mentions the purpose of writing this thesis and the purpose of this research. It deals with the contribution of the research result to the literature and how it can guide future studies.

CHAPTER 2

LITERATURE REVIEW

2.1.Digitalization

Digitalization affects almost all spheres of human activity in life. In faWhileFourth Industrial Revolution continues to develop and affect human life in countless ways, the most important effect is digitalization in our lives (Parviainen et al., 2017; Tihinen & Kääriäinen, 2016). It has succeeded in influencing communication patterns, working styles, transportation systems and even prod,uction processes s (Schwab, 2015; The Economist, 2012 as citied by Gbacitedin, S. A. (2019).Digitalization technologies correspond of artificial totelligence (AI), robots, robotization, the Internet of Effects, big data, 3D printing, independent vehicles, drones,cyber-weapons, and surveillance (Brennen & Kreiss, 2016; Degryse, 2016 19; Schwab, 2015), nanotechnology, biotechnology, material wisdom, energy storehouse, and amount computing (Manyika etal., 2013; The Economist, 2012). Others are blockchain, smart metropolises, brain-inspired computing, social computing, pall computing, smart grids, digital circuits, plant robotization, fuzzy sense, expert systems, agents andmulti-agent systems, natural language processing, data mining, sentiment analysis, mortal-computer commerce, image processing, geographic information systems, videotape analysis, medical opinion, segmentation ways, stoked reality, VRsatellite communication systems, 5G network progressions, biometrics, electronic data cloverleaf, cryptocurrencies,e-learning,e-business, digital marketing, and virtual associations (Gbadegeshin, 2019).

Parviainen and colleagues (2017) explain that (Gbadegeshin, S. A. (2019

“Potential benefits of digitization for internal productivity include improved business process efficiency, quality and consistency by eliminating manual steps and achieving better accuracy. Digitization can also provide a better real-time view of operations and results by integrating structured and unstructured data, providing better views over corporate data, and integrating data from other sources. In addition, digitalization can provide better job satisfaction for employees through the automation of routine work, thus freeing up time to develop new skills. Digitization also improves compliance through standardization of records and improves recovery through easier backup and storage deployment. ”

2.2. Digial Marketing

2.2.1. The Effect of Digitalization in Marketing

Digital Marketing is an indispensable environment where companies move from traditional marketing to digital and benefit from the advantages of the internet. Digital Marketing is also called "Online Marketing", "Internet Marketing" or "Web Marketing"(Bapat, 2018).

With the development and rapid change of today's technologies, digitalization has become inevitable in the field of marketing. Companies have started to meet the needs of customers and to present their experiences in the physical environment on social media and the internet. Companies that quickly adapt to technology in the increasingly competitive environment can continue to stand up and be in the race for leadership with the marketing strategies they make in this process. Social media, SEO, content marketing, which are frequently used in the transition from traditional marketing to digital marketing, appear in digital ways.

Online marketing, which we know as internet marketing, has many different names and plays an important role in announcing the name of the company. In this way, companies

strengthen the company's reputation through online means. These companies can reach so many potential customers that they cannot reach them in traditional ways because so many people are browsing the internet and looking for new information. In this way, Companies can reach a faster and more economical way to customers (Bapat, 2018).

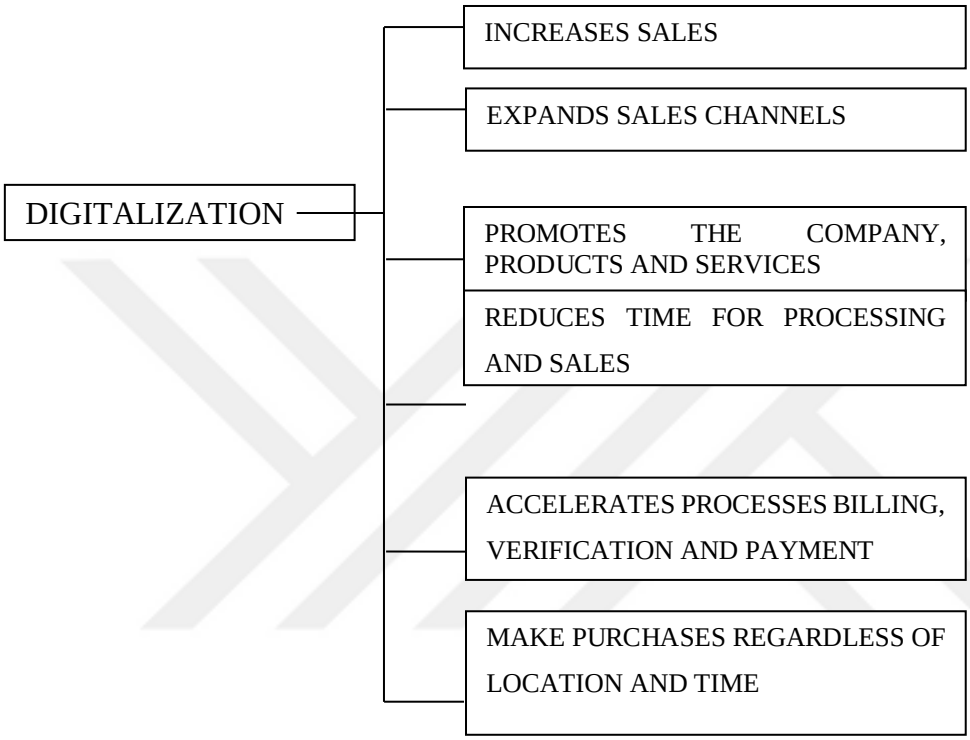


Figure 2.1. Key factors of the impact of digitalization on marketing activities.
Source: Shpak, N., Kuzmin, O., Dvulit, Z., Onysenko, T., & Sroka, W. (2020).

2.2.2 Tools Of Digital Marketing

Table 2.1. The Main Digital Marketing Tools

Marketing sphere	**Marketing tools description**
Online Branding Eid,Sharief&Hussein, (2011).	Online branding is basically about building fundamental alliances with Internet portals and content providers. According to the research of Chiang et al. (2008) found that Internet users have a certain perception of each online brand.
Analytics & Tracking Volodymyr, Halyna,(2019)	Analytics & Tracking is an entrance of any marketing strategy. With the ability to track the marketing efforts, it is possible to determine operative tasks.
Collaboration Todor, (2016)	Online marketing (digital marketing) enables collaboration among users and gives them the chance to freely express their opinions about the product/service.
Customer Success & Support Schaefer, Hetman, 2019	Customer Success & Support tools make it a key category of the best marketing tools list because it provides support connection and feedback with each concrete customer.
Design, Images & Video Schaefer, Hetman, 2019	Design, Images & Videos tools help with creating visual images, videos, and sites to attract visitors and engage consumers. It's complicated sometimes for marketers to create well-looking content, not being web designers. Settings of these tools help

E-Commerce Chaffey, Edmundson-Bird & Hemphill, (2019).	Digital commerce is broader in scope than electronic commerce. Generally, it is thought to mean trading using the Internet only. E-commerce is a collection of transactions, it can be regarded as all transactions mediated electronically between an organization and any third party it deals with.
Email Marketing Hudák, Kianičková & Madleňák (2017)	Email marketing is a part of e-marketing. And it is used to increase site traffic and sales support. It can be defined as the targeted sending of commercial and non-commercial messages to a detailed list of recipients, respectively, of their e-mail addresses.
Marketing Automation Świeczak, (2013)	Marketing automation provides analytical possibilities and also means a real increase in the company's value. This added value produced by this system is a source of information about customers, the marketing process, and the sales process.
Event/Project Management Williams, (2012)	The main purpose of event management is to create an indescribable experience for a target audience within resource constraints. Successful events, therefore, require a complex blend of creative and business goals.
Paid Advertising Dai, Luca (2016)	Internet advertising, the fastest growing marketing channel in recent years, reached 60 billion dollars in the United States in 2015. On the other hand, the largest share of online advertising expenditures was paid search, which was placed next to the search results of the advertisers.

Social Media Management Terrance, Shrivastava, & Kumari, (2017).	The purpose of Social Media Marketing is to use one or several social media channels to interact with current and potential customers, create relationships and then sell our products or services.
Webpage Creation & Lead Capture Schaefer, Hetman, (2019)	Web page Creation & Lead Capture. It's almost an expectation now that marketers should be able to make and maintain their web pages without the help of a developer. With many drag and drop interfaces available, it's become much easier to do so

Source:It has been edited by the author from many sources.

In addition to the table above, the following topics are tools of digital marketing.

2.2.2.1 Search Engine Optimization (SEO)

This technique, called Search Engine optimization, has a very important place for today's marketing. Companies use this search engine optimization technique in all their marketing initiatives. Thanks to this technique, they enable them to focus on their target audience more accurately and with less cost.This technique, which has been the subject of many studies in the literature, has brought some comments. Search engines act as a bridge between published web pages and users. The search engine is a system that lists the best web pages that contain any information that users need and provides the user with the information they are looking for as soon as possible (Karlık,2018).In the search engine operating system, search engine robots collect information about URLs. The collected information is stored in databases. When users search on the search engine, the data in this database is examined and the websites are ranked with a compliance algorithm (Atay, 2010).

1) SEO, for example, forms part of search engine marketing (SEM) that defines the steps taken to organically grow a site's relevance by building

2) links, writing powerful content, or submitting it to search sites (Potts, 2007 as cited by Yüksel, 2019).
3) The other definitionis‘ Search engine optimization is the process of improving a website's position. Thus, the web page will appear higher in the search results of major search engines (Curran, 2004 as cited by Yüksel, 2019).’

2.2.2.2 Online Marketing

Online marketing is increasingly salient in our Daily lives, is still a very young medium and still a very young medium and still in its expreimental stage. Online marketing is changing from rapidly in an effort to keep up with technology, the speed consumer adoption of new media, and new media ideas (Sheehan, B. (2010) page:6). Opreana, A.,& Vinerean, S. (2015) has clearly explained as you can see the table below the comparison of the two marketing methods in this period that the transition from traditional marketing methods to digital marketing is quite fast.

Table 2.2 Differences between traditional and digital inbound marketing .

	Traditional Marketing	Digital Inbound Marketing
Basis	Interruption	Organic
Focus	Finding customers	Getting found by potential, existing and aspirational consumers
Aim	Increased sales	Creating long lasting relationships by reaching and converting qualified consumers
Target	Large audiences	Interested prospects

Tactics	Print advertisements TV advertisements Outdoors advertising Cold calling Trade shows Email lists	Blogs, Ebooks, White papers Videos on Youtube, vimeo, etc. Search engine optimization tactics Infographics Webinars Feeds, RSS Social media marketing tactics

One of the most important factors in the rapid development of online marketing is the increase in internet usage. In the table below, you can see the increase in internet access and internet usage in Turkey over the years.

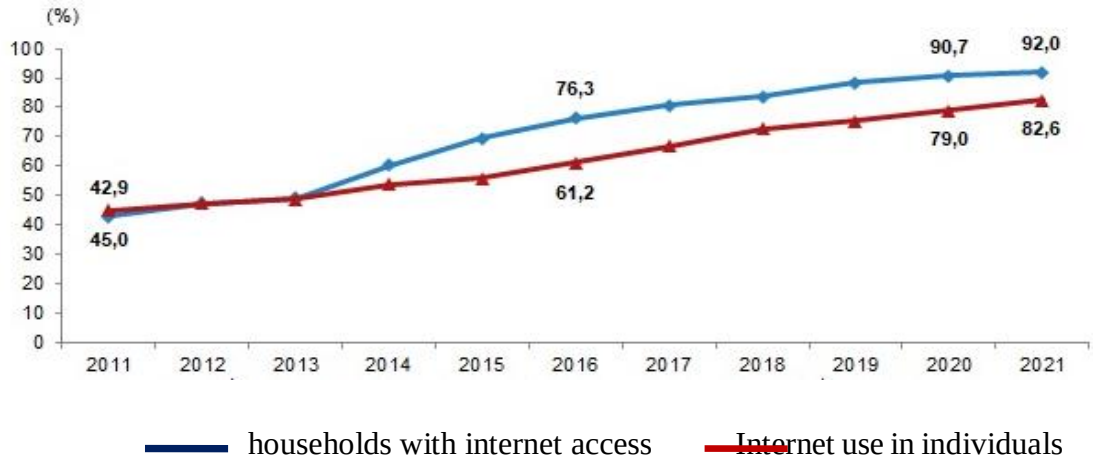


Figure 2.2. Internet use in households and individuals with Internet Access in Turkey ,2011-2021

Source: Tüik, Household Information Technologies (IT) Usage Survey, 2021

2.2.3 Digitalization in Tourism Marketing

Today, the tourism sector has started to digitalize as in every field and has gained rapid momentum. One of the most important contributions to the current development of the global tourism industry is the development of Internet technologies. This competitive environment in the digital world makes the tourism industry more flexible. At the same time, the digitalization of the tourism and hospitality industry improves customers' communication with business owners, resulting in a situation where customers achieve excellent results and business owners with higher revenues (Kayumovich, 2020).

According to Smagulova and Suyunchaliyeva (2019), the development of the tourism industry is seen as a new approach that will contribute to the country's economy to attract foreign investment. The country should achieve accelerated technological modernization through the cultivation and introduction of new industries, and the development of industrial and tourist infrastructure. It contributes to ensuring the transition to the innovative development of the country.

The contribution of the tourism sector, which is related to the development of the country's economies and its contribution to the economy, cannot be ignored. Filipiak, Dylewski & Kalinowski (2020), who researched this, stated that the developments in the tourism sector and the growth of the tourism economy increase the GDP of the countries. Therefore, technological developments and increased customer experience contribute to the national economy and ensure its growth. There was one exception in this research in terms of having negative results, and the exception was Greece.Therefore, tourism companies, which adapt to technological developments and are strong in a competitive environment, also contribute to the GDP of their countries.

Experience has a very important place in the tourism sector. As technological developments increase, people's memories that they hide their experiences and remember them over and over are very valuable. Photos, videos, etc. they can hide. Apart from these memories, the increase in technological developments differentiates

the experiences of the customers, and the experiences and opportunities provided by the tourism sector to its customers increase. This situation gives companies the chance to increase customer satisfaction. Some proprietary digital technologies can deliver this supposed positive experience in a searchable and modifiable format. There is only a finite amount of information about real-life objects, their connections, and relationships in a format that can be processed by computers. The main problem is that computers need adequate coding solutions created by artificial intelligence to be able to store, process, and organize information. Coding methods for tourism experience affect the speed, efficiency, and information processing capabilities of today's computers (Zsarnoczky, 2018).

2.2.4. Effects of Industrial Revolution 4.0 in Tourism Industry

Industry 4.0, which is the first revolution but the fourth revolution in terms of business administration, means that the competitive environment becomes more difficult for businesses ((Özmen et al., 2019). Industry 4.0 has caused great changes and developments in all areas of our lives. Of course, the tourism sector was also affected by this development.The fourth industrial revolution affected economies and industries, as in all sectors. Technology, which is a key element for Industry 4.0, also has an enormous impact on tourism.Technologies that provide important opportunities from Industry 4.0 such as the Internet of Things, Big Data, Chained Disabilities, Artificial Intelligence, VR, and Augmented Reality can be applied to the tourism sector. By creating a common ecosystem involving residents, local authorities, tourists, service providers, and government, an enriched tourism experience can be created in both the physical and digital worlds (Ozturk, 2020).The digital platform is a system that allows management to solve the optimization, quality, and safety problems of business processes more quickly and efficiently in the tourism industry as in every industry. It also acts as a catalyst for the economy, leading to a significant reduction in costs and speeding up work cycles, aiming to make production more flexible and competitive (Verevka, 2019). The findings of Korže (2019) in his study were first to reveal the different uses of the

term Tourism 4.0 among governments, tourism politicians, practitioners, and academics; Second, tourism stakeholders have already widely applied technologies of the fourth industrial revolution that are suitable for designing tourism services.In this research, many countries have been studied and researched, and tourism 4.0 in Spain is accepted as an "almost completely digitalized sector". Still, the only data available for Tourism 4.0 has been related to the launch of a new cryptocurrency, Touriscoin, by a private company from Alhambra. Tourscoin should probably provide "zero middlemen" payment and contract services (Korže, 2019 as citiedcitedno, 2018). To support the development of tourism in the digital marketing, Turkey announced 'Tourism 4.0' in 2017 that it will invest and develop the concept of the last/latter. (Digital Tourism, n.d.).

This new industrial revolution is thought to bring not only benefits but also challenges for tourism. How people with disabilities (PE) can contribute to their social inclusion in tourism practices is a major challenge. Tourism is an activity that enriches people in many dimensions. In his research, Teixeira (2020) has also set the main goals to make Accessible @ Tourism 4.0 tourism, a new concept for disabled access, access to all. The adoption of technological components in accessible tourism enables the development of a new technological solution that will facilitate access to tourism products for the disabled and contribute to the development of accessible tourism.

2.3. Museology

Museums, which are increasingly important in cultural tourism, are also important indicators of modernization and socialization. In this respect, the missions, types and, functions of museums have changed in recent years. The number of visitors and income of museums that keep up with this change, develop their technological infrastructure, and use effective promotion and marketing techniques are constantly increasing (Kervankıran, 2014).In addition to cultural tourism, there are many alternative tourism areas. Instancesofalternative tourism types within the tourism industry can be counted as;nature tourism, heritage tourism and cultural tourism, together with other types of

tourism. The most attractive one amongthese is cultural tourism. Cultural tourism is preferred to see places that cannot be found elsewhere and values belonging to society. Ancient buildings, historical artifacts, historical landscape, works of art, festival,s, etc. All historical and cultural values such as, constitute the most important resources of cultural tourism (Jewell ve Crotts, 2002 as cited by Kervankıran, 2014).

There is a transformation of the age in museums as in every field in the world. Public museums established in the 19th century, starting from the 18th century, gave way to private museums. Today, almost every museum appears as a new model (Artun, 2008: 97-103).

Museums, whose main purpose is to collect and exhibit ancient artifacts, have acquired pedagogical, sociological, and psychological contents in their society today, and in addition to these, has assumed the identity of an independent scientific discipline under the name of "Museology", which is educated separately at universities. In the process from yesterday to today, museums that preserved and exhibited ancient artifacts and collections in historical buildings were gradually reconstructed with today's museology understanding, and beyond that, they have been transformed into non-formal education institutions located in new buildings designed according to the artifacts they will keep (Okan, 2018).

2.3.1 History of Museology

Since ancient times, human beings have collected many natural or man-made objects. They are rare. They are sacred, aesthetic because they are a measure against oblivion because they want to transmit information and objects to the next generations, or for investigation and research.

The history of museums in the world dates back to ancient times. Although it is quite different from today's understanding of museology, the history of museology dates back to ancient times due to the feeling of transferring memories and fear of being forgotten.The museum form, which was built in the historical process, took its roots

from the ancient age and continued its formation until today, museums have continued to evolve with various institutional dynamics since then (Mülayim, 1994: 77 as cited by Uçar, 2019).

If we need to go to the history of museums and give an example, we can talk about the Babylon Hanging Gardens of the ancient period. During the excavations carried out in the North Palace of the gardens, it was determined that Nebuchadnezzar and his successors used it as a museum and there are many artifacts in it (Yağcı, 2014: 8). Although it is quite different from today's understanding of museology, it has a very important value for the museology of the period. In the museology understanding of the ancient period, palaces, libraries, temples, and schools of the time are included.

When the power race in European countries turned into colonialism and from there to a political and cultural demonstration, Germany's museums, especially Berlin, showed rapid development. The period of gathering the result of the cultural power show continued with the development of the exhibition and presentation. Since the middle of the 20th century, the museum has ceased to be an institution where a show of power and wealth is staged by state administrators. In addition to documenting the life and development of the protected objects and natural beings, it has emerged that there is a need for different specialties that motivate our curiosity and interest with their activities while developing various methods for museum collections to meet all segments of society due to their contribution to their creativity (Keleş, 2003).

According to some sources, Turkish museum history dates back to the Seljuk period. The main reason for this is; In terms of exhibiting a kind of protectionism understanding, the use of processed pieces belonging to previous civilizations in Turkish architectural works in an attitude to prevent the extinction of these works is to be evaluated as the first museology movements in Turks(Günaydın,2008).

It states that in the Ottoman period, various antiquities, rare and valuable items, valuable works of art, gifts, and spoils were kept/collected with a similar approach. In addition, it

is known that the clothes and personal belongings of the sultans were collected in the palace as a tradition and kept in bundles. Although collecting is not the purpose in these examples, a diverse and rich collection has been formed as a result. For this reason, some sources take our museum history back to the 1100s (Günaydın,2008).

2.3.2 Modern Museology

As the people and thoughts have changed over time, the understanding of museology has emerged in many different forms. Today, as you can feel the existence of technology in every field, it has an enormous effect on museology, and when combined with changing social structures and expectations, technology might be seen in many different forms. There are four important approaches in today's modern museology: "Virtual Museum" "Touchable Museum" "Mobile Museum" and "Foundation Museology" (Keleş, 2003).

Virtual museologycan be considered as a type of museology that best reflects the profile of today's modern museology.In this thesis, the subject of virtual museums will be examined in more depth, but it is necessary to say that many of the world's leading museums are opened in a virtual environment covering the World. Among these, museums such as London British Museum and New York Metropolitan Museum attract visitors not only from their own countries but from various countries around the world using today's modern technologies. In this way, museums deliver their collections and exhibitions to large masses in a fast and practical way and provide rapid communication with these people (Keleş, 2003).

The understanding of museums underwent radical changes in the 1970s. According to Ross (2004), the understanding of museology changed its purpose with the effect of economic pressures and directed it to customer visits over the values of the collection. The new and changing understanding of museology has been made more visitor-oriented. In his article, he claims that 'the movement towards a more visitor-centered ethos can be seen as entailing a corresponding shift in the identity of the museum professional, from' legislator 'to' interpreter 'of cultural meaning'.

According to the Declaration of Quebec; While museology keeps up with the modern world development, it should also try to gather all the resources that can contribute to development, as well as trying to define its traditional roles, to extend its preservation and educational functions from these goals to broader initiatives, and thus to integrate them. It should increase its modern methods involving the consumer, both to keep pace with this museology development and to involve the public in its activities (Mayrand, 2014).

The new visitor-oriented museology approach does not attract visitors to the museum in some museum forms but brings the museum to the visitors. In this sense, the modern museum, as Eraslan says, does not wait or attract visitors (Eraslan, 1998, 33), it tends towards the understanding of "mobile museums" that bring what it has to people with modern communication techniques.

According to the new concept of museology, eco-museology, community museology and all kinds of active museology keep pace with today's aspirations, expectations, and technology with their valuable collections from the past. It deals primarily with its development and relates developments in social progress to the planned future.

This new trend of Quebec offers a solid creative imagination at the service of humanitarian principles approved by the international community. In this way, people will learn about themselves and each other, yet develop critically, and build a world that takes a responsible attitude towards their inner wealth, and they will be able to voice their concerns.

The following are adopted:

1. To invite the international museum community to recognize this movement and to adopt and acknowledge all forms of active museology in museum typology;

2. Take all possible steps to ensure that public authorities recognize local initiatives to apply and help improve these principles;

3. In this spirit, the following permanent structures should be established in close cooperation to ensure the development and success of such museology: (a) an international committee for museums within the ICOM (International Council of Museums); (b) an international federation for new museology that may be associated with ICOM and ICOMOS (International Council of Monuments and Sites) and whose temporary headquarters will be in Canada;

4. An ad hoc working group should be established, with the following initial mandate: identifying proposed structures, formulating goals, implementing a three-year program ofmeetings, and international cooperation (Mayrand, 2014).

2.3.3. Digitalization on Modern Museology

Today, technology, which has become an important tool of visual art and three-dimensional expression techniques, has a long history dating back to Ancient Greece, just like museums. Techniques that can help people, "technology", which derives from the meaning of applications, has become a bridge between science and art. In this context, it is possible with technology to develop three-dimensional expression techniques in museums and to carry the art of panorama to the future. For these purposes, the field was chosen as the “Panorama 1326 Museum and Interaction Center” and a proposed model was created in this context (Zülfikar, Ediz, 2020).

In the 21st century, three-dimensional design programs, web-based programs combining photographs, interactive cameras, and panoramas have come up to date with technology. However, when compared to the products of the digital age, panoramas have never been simply a combined digital photograph or a 360 ° landscape setup. In the 19th century, popular panoramas attracted worldwide attention like a carefully prepared magic show.

The use of technology in the museum aims to provide audience diversity by creating a focus of interest appealing to different target audiences in the museum. By increasing the accessibility of the museum, predicts that it can go beyond its physical boundaries, ensures its strengthening in terms of archives, and maximizes audience participation.

Fun and easily accessible forms of using technology in the museum include digital games related to the museum, information systems in the museum, digital platforms that enrich the exhibition, etc. is located.

Table 2.3. Contemporary museology principles

1. Museums should have a universal perspective and respect for diversity.
2. Every part of the society should have access to museums with their differences. Many differences between disadvantaged groups (age, gender, race, color, ethnic origin, religion, sexual orientation, medical condition, physical disability, etc.) should be respected, and museums should strive in this process to overcome all kinds of discrimination.
3. Museums should update themselves according to the requirements of the age they are in; educational and social benefit goals should come to the fore.
4. The community should be involved in museums as a participant. Mutual communication should be a priority and should be open to changes and innovations. Contemporary museums; should be able to become places where visitors can share their creativity, ideas, meanings, ideas, and projects.
5. Museum training; The relationship between the museum's collections and the visitor is a whole, and this relationship should be seen as a lifetime and programs should be prepared accordingly.
6. Museums should be constructed with many ecological, cultural, and artistic values, both local and universal.
7. In contemporary museology; Intercultural thinking should be prioritized instead of an introverted, local perspective.

Although digitalization in museums has had its effect in the process and has also affected the museum sector, digitization has accelerated especially in the Covid-19 process, in this process when museums are closed; museums came to the visitors.In this difficult period, such developing technology has worked to keep the tourism field alive, to bring museums together with visitors, and they have used today's technology in the most effective way possible. In the next part of this article, The mentioned the studies in the literature about virtual museology and the use of virtual museology.

2.3.4. Vırtual Reality on Museology and COVID-19 Process

Museum websites and virtual museums are access and communication channels that best reflect the profile of today's modern museums. Virtual museums are developing as a new type of museum (Okan, 2015, p.193). In this sense, the first structuring where museums started to take technological steps to reach more people is virtual museums. In virtual museums, distances were removed for the audience through virtual exhibitions, and spaces without walls were created. Thus, it is seen that new opportunities are provided to the visitors without the physical presence of the spaces (Kaya, Ekiz, Yerlikaya, 2018).

The COVID-19 epidemic, in which the world has fought a great war, has deeply affected the tourism industry as in every field. The effect of this on the tourism sector, which is a very large sector, has been enormous. In this process, the tourism sector has benefited from the technological possibilities and sought the most effective ways they can use.These developments have forced the museums that suffer from both socio-cultural and economic problems to try to understand the post-pandemic period, which is called the "new normal", at least like other institutions. While museums around the world are closing indefinitely, some of them have had to develop new ways to maintain accessibility (Yanar, Karadeniz, 2020, p.114).

According to the European Museums Organization COVID-19 European Final Report (2020), during the pandemic process, museums first tried to re-analyze who the "museum audience" was. In this process, as they will encounter with their audience on

online platforms, they have carried out the tasks of renewing their websites, transferring their collections to digital platforms, creating museum virtual newspapers, opening social media accounts, or activating existing accounts. 40% of the museums have increased the number of viewers on the online platform. Since most of the museums had a negative impact on educational activities, they quickly tried to develop content that would positively affect the educational processes of children and young people (Yanar, Karadeniz, 2020, p.116).The number of viewers who follow the social media accounts of the museums and subscribe to the pages to receive notifications from their web pages has also increased by 30%.

As we will see in this research, many museums have more virtual visitors than physical visitors and the rate of being followed from social media accounts has increased. Another remarkable study in this area is Lehrer and Butler (2020), which emerged with their analysis of the American Museum Association data. As a result of this research, the expectations of the online museum visitors during the pandemic process were determined as follows;

1. Seeing behind the scenes in museums: Watching how museum studies take place, what happens in the daily work routines of museum professionals.

2. Riddles, puzzles, etc. related to the museum on digital platforms. providing access to fun online games.

3. To take part in "make and share" events, which are prepared based on the collection of the museum and open to the audience.

4. Sharing hope and beauty with other viewers.

2.3.5 Development of Vırtual Museums In Turkey

While the rapidly developing technology in our country shows its effect in every field and sector, it has also shown its effect in the field of museology. It has changed the structure of museology and collections influenced by digital technologies. With the

developing technology, interactive virtual museums, which are based on information/images and can be accessed easily and quickly, have begun to be established, unlike traditional object and physical collections. According to Academician Filiz Yenişehirlioğlu, this abstraction process in today's virtual museums actually causes the identity of the work to be blurred. Therefore, although virtual museums offer us a richness that we are not used to, they affect the formation of our physical world due to a shallow shallowness (Yenişehirlioğlu, 2007: 250). Although this VRis a great wealth and opportunity for the visitors visiting the museum, not being able to touch the object and not being able to walk in the museum halls means not being able to go deep into art and history (Bozkus, 2014).

This development of virtual museums in our country has also shown its effects in education. According to Bulut and Uzun (2021), museums that are used in the education and training process and visited many times in order to have information about our intangible cultural heritage and at the same time, to gain awareness, to embody soft information, to be aware of the developments and changes in world life. While taking advantage of these benefits, they can now be used in the classroom through virtual museums. While virtual museum applications are used in the classroom, they participate in the teaching process with different methods.

Apart from the field of education, it has begun to integrate into our social life. The increase in participation in working life day by day, the limited time people can spare for themselves and their environment outside of work, and museum visits are also limited. In today's world, when the age of modern technology has made societies time poor, people's constant effort to catch up and raise something, depending on the speed of the age, takes into account and it seems difficult for a modern person who is time poor to have time to go to the museum. The social necessity and importance of virtual museums can be better understood when many things are taken into account, such as the limited hours that museums serve in the classical museology approach, the times people can

spare for museums, the capacity of museums to host visitors (KAHRAMAN, 2021 : 147).

2.3.6. The Most Visited Museums in the World and Turkey

Museums are indispensable elements of city and cultural tourism (İBB, 2012 as citied byKURTURAL, PIRNAR, 2017).“It is a city that strengthens the culture of mutual understanding, mutual respect and common life among different ethnic, religious, cultural and social groups living in the city, plays an active role in the preservation of the historical heritage of the city by creating a civil platform, and increases the capacity of finding solutions to the problems of the city. Urban museums come to the fore as specialized communication, education, preservation and cultural centers that contribute to the realization of urban development perspectives that are discussed and determined in a democratic way, and that help promote the city as a whole and in depth” (Silier, 2010: 12, as citied by KURTURAL,PIRNAR, 2017). During the pandemic period, museum visits were stopped, as were many areas and institutions.The cultural sector has been oppressively and persistently affected by the COVID- 19 epidemic, with galleries particularly hard hit the 2020 UNESCO report estimated that nearly 90, or an estimated institutions, had been closed for varying lengths of time. The part of galleries in society is essential, as they're responsible not only for conserving heritage for unborn generations but also as central actors for promoting lifelong literacy and equal access to culture and the dispersion of values on which humanity is grounded. Their function in terms of social addition is vital to icing the cohesion of our societies, and they're also major players in the creative and tourism husbandry(UNESCO, 2021). People who are confined to their homes have focused on activities in the virtual environment. During the epidemic, virtual museums were flooded with visitors. Over 11 million visitors visited the virtual museum. Among the most visited museums during the pandemic period are Göbeklitepe, War of Independence Museum, Ephesus Ruins, Troy Museum, Anatolian Civilizations Museum. According to the data of the Ministry of Culture and Tourism in 2019, it was stated that 35 million 48 thousand 417 people visited museums and ruins in

Turkey. It has been recorded that museum visits increased by 24 percent compared to the previous year. It was stated that virtual museum visits were visited more than real museums (Virtual museums hosted more than 11 million visitors during the pandemic, 2021 as citied by ORTAÇ, 2021).

In Turkey Museums in many parts of Turkey can be visited virtually at the https://sanalmuze.gov.tr/ address of the T.C. Ministry of Culture and Tourism, General Directorate of Cultural Heritage and Museums. These are 33 together with the virtual museums and ruins added during the pandemic period.

- Kurtuluş Savaşı Müzesi- Ankara
- Cumhuriyet Müzesi – Ankara
- Efes Müzesi-İzmir
- Troya Müzesi-Çanakkale
- Anadolu Medeniyetler Müzesi-Ankara
- Gazi Müzesi-Samsun
- Göbeklitepe Ören Yeri-Şanlıurfa
- Etnoğrafya Müzesi-Ankara
- Antalya Müzesi-Antalya
- Boğazköy Müzesi-Çorum
- Arkeoloji Müzesi-Gaziantep
- Zeugma Müzesi-Gaziantep
- Çorum Müzesi-Çorum
- Şanlıurfa Müzesi-Şanlıurfa
- 46 Adana Müzesi-Adana
- Arkeoloji Müzesi-Hatay
- Van Müzesi-Van
- Göreme Açıkhava Müzesi-Nevşehir
- Ihlara Vadisi-Aksaray
-

- Hattuşa Ören Yeri-Çorum
- Atatürk Müzesi-İzmir
- Nemrut Ören Yeri-Adıyaman
- Hierapolis Ören Yeri-Denizli
- Laodikeia Ören Yeri-Denizli
- Türk ve İslam Eserleri Müzesi-İstanbul
- Ahlat Selçuklu Meydan Mezarlığı Ören Yeri- Bitlis
- Uşak Müzesi – Uşak
- Arkeoloji Müzesi – Mersin
- Havalimanı Müzesi – İstanbul
- Cumhurbaşkanlığı Milli Mücadele Sergisi – Ankara
- Assos Ören Yeri – Çanakkale
- Arkeoloji Müzesi – İstanbul
- Efes Ören Yeri – İzmir

  (Sanal gezinti, 2021).

There are many online museums in the world that are very well developed and have a good presentation. According to ASCHERL (2021), the list of the 13 best virtual museums in the world is as follows;

- LOUVRE, PARIS
- Sistine Chapel, Vatican Museums, Rome
- NASA, Washington DC
- Natural History Museum, London
- The National Gallery, London
- The Frida Kahlo Museum, Mexico City
- Picasso Museum, Barcelona
- The British Museum, London

- Guggenheim Bilbao Museum, Spain
- Uffizi Gallery, Florence
- The Vasa Museum, Stockholm
- MOMA, New York

CHAPTER 3

THEORETICAL FRAMEWORK

This study is based on the Situated Cognition theory. According to the Situated Cognition theory, even if a person takes the same course from the same person, in the same environment, he will never learn the same thing as others. Because each individual has their own prior knowledge, coding system, signification patterns, personality and different goals. It is argued that learning depends on individuals' own experiences, mental structures and beliefs. As can be seen in the table, according to this theory, people's backgrounds on the same subject and the variables in their lives cause different interpretations. In this study, it has been investigated whether the effect of virtual museums on visitors will change in variables such as gender, educational status and age. This section discusses the use of Museum Situated Cognition in some studies and the application of this theory to the impact of virtual museums on visitors.

3.1. Situated Cognition in Museum

Hopper-Greenhill (1999) argued that understanding the processes of interpretation is the essence of education in museums and that this process is shaped by the interrelationship between prior knowledge, attitudes and beliefs, and the subject, object, and setting.

Rochelle (1995) stated that museum experiences cannot eliminate prior knowledge and museums can provide learning experiences to visitors by using challenging environments that allow interaction, reflection, and questioning.

Rennie and Johnston (1994) stated that learning in museums is personal, contextualized, and takes time. This learning experience requires participation and some mental, physical or social activity and this experience may not necessarily be seen; rather, learning can be observed in an individual's actions: what that person does and says. Falk and Dierking (1992) suggested that there are three contexts that influence learning in museums: personal – visitor's own history with previous experiences – social context – visitor's interaction with other people and physical context, architectural features, exhibition layout, etc. physical aspects of the museum visit, including (D' Alba, 2012).

3.2. Subject and Scope of the Research

In this thesis, there are 5 basic hypotheses and 3 basic questions to be investigated. The results and analyzes of the survey conducted to find the answers to these hypotheses and questions are available in the following data, and it is possible to come up with different and new results other than the expected hypotheses. Like every sector, tourism has been adapted to the developing technology and many developments have been experienced in the field of museums. The fact that the thesis process coincided with an epidemic period such as COVID-19 that affected the whole world accelerated the rapid development of technology in every field and the transition to new life normals integrated with technology. During this period, Many people who have not heard the term Virtual museum before have heard of virtual museums and perhaps visited them in the virtual environment.

The purpose of this research is to measure and analyze the impact of the developing Virtual Museum concept on people, the effectiveness of virtual museums, how they affect visitors, and the share of people in virtual museum visits. As it is an emerging term, this study will be helpful in measuring the development and effectiveness of both virtual and physical museums. As a result of this thesis, we will be able to measure whether virtual museum visits will turn into physical visits in the future and how these results can change and improve the promotion and advertising of museums. At the same

time, this study tries to show us how sufficient the virtual museum websites or applications are, whether they are easy and accessible, and how impressive they are. It will try to measure how and to what extent it should be integrated into the virtual world and perhaps contribute to its integration.

It is thought that with the data obtained as a result of the research, it can shed light on the museum industry, those who develop web pages in the field of museums that are developing virtually, and those who work on advertising in the field of tourism.

3.3. Objectives Of Empirical Research

In this study, as directed by the literature review, the effects of virtual museums on visitors, their perspectives and the success of the application are investigated. The most important reason for conducting this research is to measure the future and current impact of the rapidly developing virtual marketing industry, especially this year due to COVID-19. It has seenthat the studies on this subject in Turkish literature are mostly on a single museum. Therefore, this research will provide a more general perspective. The scale was created by using 3 studies (Çoban, 2018); (Huang, Backman, Backman, 2010); (Dinçler, 2009). This research will shed light on the impact and efficiency of virtual museology on us and this industry.Despite COVID-19, more than 10 million people visited nearly 30 virtual museums in our country in 2020, and we aimed to measure the effects on visitors more deeply, believing that these museum visits and virtual museums will increase.

About the positive contribution of virtual museums to physical museum visits, which is our aim and the result we want to reveal in this study, Yaşar University Head of Business Administration Prof. Dr. İge Pırnar (2021) mentioned it in her interview.

> "It will be beneficial to realize the Aegean Civilizations Museum, which is planned to be opened to many countries, as a virtual museum in the first place. When this project is implemented in the next stage, it will also make a great contribution to visiting the real museum.

Visiting virtual museums also plays an important role in creating a preliminary demand for visiting real museums at a later stage. "

3.4. Importance of the Research

This study is importantto show the new trends in the museum and tourism sector, the process of keeping up with the developing technology, how to continue the new world both in the virtual and physical environment with the effect of COVID-19, and to show the importance and effect of the virtual environment in physical visits.

Since it is a new and developing sector, this study was conducted to close an important gap in the literature.The participation of many age groups and groups with different education levels has made the study more meaningful and interpretable.

3.5. Limitations of Research

Since virtual museums are a new trend and a developing sector in our country and the world, it was very difficult to find virtual museum visitors to participate in the study. Therefore, the number of groups belonging to some demographic characteristics was not high enough. E.g; when we look at the demographic characteristics of the participants in the survey, the fact that there are not many primary school and doctoral graduates among the virtual museum participants, the thoughts of that group, and the effect of virtual museum visits on them did not give fully realistic results.

3.6. Research Questions and Research Hypotheses

The research model and hypotheses proposed to answer our research question will be presented in this section, starting from the main purpose of the thesis.

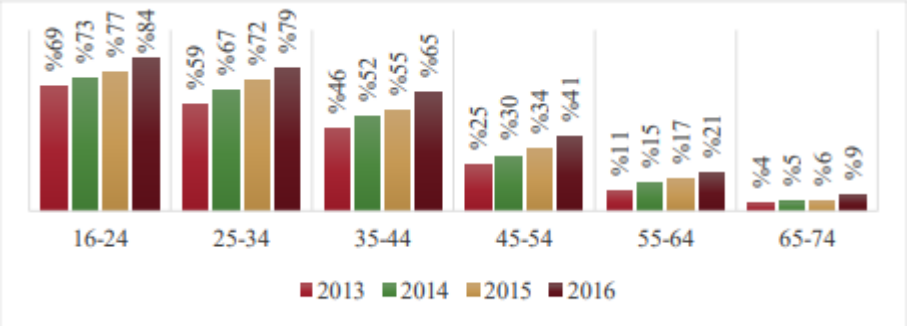
Based on the discussion of the literature review, virtual museum visits have an impact on visitor behavior and expectations. . It is possible that this effect would increase the visitors' willingness to visit the museums physically after the virtual museum experience The motivation and basis of this thesis is the belief that the closure and virtual opening

of museums that make a significant contribution to tourism, like many places closed during the covid-19 period, can keep tourism alive.

According to the literature review and the research objectives,research hypotheses are defined below,

Guler et al. mentioned the results of TUIK in their research conducted in 2017. While male-female internet usage rates in the 16-74 age group by TUIK were 70% for men in 2016, it was stated as 54% for women. And when it is analyzed according to age groups, again, according to TUIK data, when the internet usage rates for the years 2013-2016 are examined, the rate of internet usage has increased in all age groups and it is determined that the 16-24 age group and the 25-34 age group use the internet the most among these groups has been done. Usage rates decrease with age.

Table 3.1: Internet usage rates by age group between 2013-2016 (TÜİK, 2013b, 2014, 2015, 2016)



Source: TÜİK, 2013b, 2014, 2015, 2016

Yılmaz and Yetiş, in their study in 2016, compared physical museum visits according to demographic characteristics, and; It is seen that there is a significant difference between the education levels of touristic consumers and the "Aesthetics", "Entertainment" and "Fantasy" dimensions of the museum experience. In the study, it was found that there is a significant difference between the answers given by the high school graduates and the

answers given by the graduates between the aesthetic dimension and the educational status, and there is a significant difference between the answers given by the participants who graduated from high school with the entertainment dimension and the answers given by those who have a Ph.D. level education. It has been revealed that there is a significant difference between the answers given by the participants who graduated from high school and the answers given by those who graduated from university.

According to the researches in the literature above and the theory on which we base the research, the following hypotheses have been developed.

Hypothesis 1: There is a significant relationship between education level and the number of virtual museum visits.

Hypothesis 2: There is a significant relationship between gender and the number of virtual museum visits.

Hypothesis 3: There is a significant relationship between the age group and the number of virtual museum visits.

Hypothesis 4: There is a significant relationship between the ease of use of the online museum and the museum's impact on visitors.

Hypothesis 5: There is a significant relationship between virtual museum success and the desire to physically visit the museum.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1. Methodology &Survey

The method of the study is the survey study to be carried out in an electronic environment. This study will consist of people over the age of 18. Participants will be reached through social media channels and e-mails. Potential participants will be assured that their participation is completely voluntary, that they can withdraw at any time without giving any reason, and that their data can be destroyed if they wish.

The questionnaire to be made will consist of 4 main parts and in the first part, general information about the participants and the virtual museum they are most affected by will be learned. The questions in the other parts of the questionnaire are about the museum most affected by the participants and will be answered accordingly.

The second part consists of questions measuring how effective virtual museums are and the impact of the virtual museum on visitors.

The third main section takes the visitor's view on the accessibility and ease of use of the virtual museum, and the final section will measure whether the participants want to physically repeat such a visit and whether the participants want to take a virtual museum tour again.

4.2. Participants

There will be no gender discrimination between the participants. People over the age of 18 who have visited the virtual museum at least once will be able to participate in the

survey. When we look at the number of visitors to the museum Troy and we look at the news about the number of virtual museums visiting Anatolia news agencies in Turkey, we thought it was over even closer to 1 million. In the thesis to be prepared according to the quantitative research method, it is planned to reach a sample of 331 people with an easy sampling method and questionnaire technique. The sample size was calculated using the formula n0 = [(t x S) / d] 2. The confidence level was determined as 1.96 and the standard deviation as 0.05 (Büyüköztürk et al., 2008, p.98). As a result of the calculation, the sample size was found to be 384.15 (Yazıcıoğlu & Erdoğan, 2004) (as cited in Sur, 2010, p.42). According to this result, an online survey will be applied to 400 people with Google Forms application.

4.3. Universe and Research Example

Virtual museum visitors across Turkey were chosen as the research universe. The formula $n_0= (t^2. p . q)/d^2$ was used to determine the appropriate sample size according to the size of the population, sampling error, and confidence interval (Gürbüz and Şahin, 2018, p. 130). The confidence level was 1.96 and the standard deviation was 0.05. For the p=0.8, q=0.2 value level, the sample size of the universe covering the range of 1 million to 100 million people was found to be 246 (Yazıcıoğlu & Erdoğan, 2004, p. 50). Convenience sampling, which is one of the non-random sampling methods, was preferred in the sample selection. Convenience Sampling is a sampling method that assumes which the researcher can easily access information about the research question, quickly and economically, and that the sample group has homogeneous characteristics (Ural & Kılıç, 2018, p. 39). In this context, 331 participants were interviewed within the scope of the survey questions.

Table 4.1. Acceptable Sample Sizes for Different Populations

Evren Büyüklüğü	±0.03 örnekleme hatası (d)			±0.5örnekleme hatası (d)			±0.10 örnekleme hatası (d)		
	p=0.5 q=0.5	*p=0.8 q= 0.2*	*p=0.3 q=0.7*	*p=0.5 q=0.5*	*p=0.8 q= 0.2*	*p=0.3 q=0.7*	*p=0.5 q=0.5*	*p=0.8 q= 0.2*	*p=0.3 q=0.7*
100	92	87	90	80	71	77	49	38	45
500	341	289	321	217	165	196	81	55	70
750	441	358	409	254	185	226	85	57	73
1000	516	406	473	278	198	244	88	58	75
2500	748	537	660	333	224	286	93	60	78
5000	880	601	760	357	234	303	94	61	79
10000	964	639	823	370	240	313	95	61	80
25000	1023	665	865	378	244	319	96	61	80
50000	1045	674	881	381	245	321	96	61	81
100000	1056	678	888	383	245	322	96	61	81
1 mil	1066	682	896	384	246	323	96	61	81
100 mil	1067	683	896	384	246	323	96	61	81

Source:Yazıcıoğlu and Erdoğan, 2004, p. 50

4.4.Data Collection Tools

We developed our survey scale, which is our data collection tool, using 3 studies (Çoban,2018);(Huang, Backman, Backman, 2010);(Dinçler, 2009). These studies were adapted to Virtual museum visits and when we did the reliability test of the questionnaire, it was 0.866. The reliability result is high and greater than 0.70, indicating that the adaptation of the 3 questionnaires for virtual museums was successful.This research will shed light on the effect and efficiency of virtual museums for us and this sector. The 4 main headings used in the scale are Personal Information, Effect of Online Museum, Accessibility and Use of Museum Visit, and Visit Impressions. It consists of 22 questions in total.

Table 4.2. Reliability Test

Scale	Cronbach's Alpha Coefficient	Number of Items
Total Museum Impact Scale	,866	11
Impact Size	,825	5

Accessibility and Ease of Use Dimension	,804	3
Impression Size	,818	3

As a result of the reliability test, it was determined that the total museum effect scale and its sub-dimensions were reliable. Reliability analysis is used to test whether the statements that make up the scale developed to collect data show consistency among themselves. The reliability coefficient takes values between 0 and 1. The closer this value is to 1, the higher the reliability (Ural ve Kılıç, 2018, s. 268).

According to Alpar (2003), if the coefficient is between 0.80 and 1.00, the scale is highly reliable; If it is between 0.60 and 0.80, the scale is reliable. While the coefficient of 0.40 – 0.60 indicates that the scale reliability is low; The coefficient of 0.00 – 0.40 indicates that the scale is unreliable.

As it is known, as the reliability level of the scales increases, the validity coefficient also increases. Validity is defined as the degree to which a measurement tool can accurately measure the feature it aims to measure without confusing it with a different feature (Balcı, 2018, s. 116).

Within the scope of the thesis, reliability analysis was carried out with the Alpha method, which is the most widely used reliability model in the literature. In the reliability analysis of the scales used in the research, first of all, an external reliability analysis was carried out in order to test the reliability of all questions. In addition, factor analysis of the SPSS program was carried out to test the validity of the scales used in the research.

The questionnaire applied to 331 people within the scope of the research got 0.878 pointsfrom the Cronbach's Alpha reliability value in the SPSS program reliability test. The survey study applied in this context has achieved high reliability.

If the result of KMO and Bartlett's Test value is above 0.6, it shows that the validity of the scale is high.Whether the data obtained from the study group is suitable for exploratory factor analysis can be explained by the Kaiser-Meyer-Olkin (KMO) and Barlett tests (Cokluk, Şekercioğlu, Büyüköztürk, 2012;

Büyüköztürk, 2010; Karagöz and Kösterelioğlu, 2008 as cited by Kaya,2013). A high Kaiser MeyerOlkin value means that each variable in the scale is perfectly predictable by other variables. If the values are zero or close to zero, no interpretation can be made based on these values, since there is a scatter in the correlation distribution. As a result of the Kaiser-Meyer-Olkin test, if the value is less than 0.50, it is interpreted that the factor analysis cannot be continued (Cokluk et al., 2012: 207 as cited by Kaya,2013).

4.5. Creating the Survey Form

The survey form of the research consists of four parts. In the first part of the questionnaire, demographic questions are included as multiple choice. In this section, to the participants; Questions including gender, age, education level, number of museum visits were asked.

In the second part of the questionnaire, a 5-point Likert scale was used to measure the impact of online museums on visitors. Feelings and thoughts of the participants; (1) Strongly disagree, (2) Disagree, (3) Undecided, (4) Agree, and (5) Strongly Agree

In the third part of the questionnaire, the usability and accessibility of virtual museums were measured. The fourth part of the questionnaire is aimed to measure the effect of general online museum visits on visitors.Like the second part, a 5-point Likert scale was used in the third and fourth sections of the questionnaire. The last question of the survey is 'Yes - No', to find out whether online museums can attract visitors physically.

4.5.Safety and Confidentiality of Research

Interview and survey questions will be forwarded to the employees by us. Interviews and participation in the survey will be carried out voluntarily of the individuals' own free

will. Participants' identity information will not be used, they will participate in our work anonymously. The results will be included in the thesis.The data obtained from the study will be used to take the thesis course of the Yaşar University Business Administration Master's program in English and will not be shared with third parties or institutions except for the thesis.

4.6. Statistical Analysis of Data

IBM SPSS 26 and AMOS 24 package programs were used for data analysis.

Frequency analysis was performed in order to obtain information about the participants.

EFA and CFA analyzes were performed for the validity study of the developed scale.

The reliability level of the scale was tested with the Cronbach alpha coefficient.

The Kolmogorov-Smirnov Test was used to determine whether the data had a normal distribution.

Chi-Square Test, Mann-Whitney-U Test and correlation analysis were used to test the hypotheses.

CHAPTER 5

BASIC ANALYSIS ACCORDING TO SURVEY RESULTS

5.1 General Information About Participants

The frequency analysis results, which were conducted to determine the demographic characteristics of the participants, are shown in Table 6..

Table 5.1. General Information About Participants

Variables	Categories	Frequency	Percent
Gender	Female	197	59,5
	Male	134	40,5
Age	18-28	117	35,3
	29-38	48	14,5
	39-48	72	21,8
	49 and Above	94	28,4
Educational Status	Primary education	10	3,0
	High school	64	19,3
	University	207	62,5
	Postgraduate	50	15,1

While 59.5% of the participants are women, 40.5% are men.It is seen that 35.3% of the participants are in the 18-28 age range, 14.5% are in the 29-38 age range, 21.8% are in the 39-48 age range and 28.4% are 49 years old and over.It is seen that 3% of the participants have primary education, 19.3% high school, 62.5% university and 15.1% postgraduate education.

5.2. General Information About Museum Visits

The results of the frequency analysis, which were conducted to determine the characteristics of the participants for museum visits, are shown in the table below.

Table 5.2. General Information About Museum Visits

Variables	Categories	Frequency	Percent
Physical	Less than 5	83	25,1
Number of Museum Visits	6-10 times	100	30,2
	More than 11	148	44,7
Online	Less than5	260	78,5
Number of Museum Visits	6-10 times	53	16,0
	More than 11	18	5,4
Most Influential	Louvre Museum, Paris	101	26,8
Online Museum Name	Frida Kahlo Museum	68	18,0
	British Museum, Londra	50	13,3
	Vatikan Museum	47	12,5
	Guggenheim Museum, New York	24	6,4
	Sigmund Freud Museum	25	6,6
	Diğer	62	16,4
The Most Impressive Museum	Instagram	81	22,0
Where did you hear it?	Facebook	15	4,1
	Twitter	17	4,6
	News sites	56	15,2
	News	14	3,8
	Family, Friends	166	45,1
	Other	19	5,2
At the Most Impressive Museum			
Time Spent	0-15 min	111	33,5
	16-30 min	146	44,1
	31-45 min.	49	14,8
	More than 46 min.	25	7,6

It is seen that 25.1% of the participants visited less than 5 physical museums, 30.2% visited 6-10 museums, and 44.7% visited more than 11 physical museums.

It is seen that 78.5% of the participants visit less than 5 museums, 16% visit 6-10 museums, and 5.4% visit more than 11 online museums.

To the question of the online museum that most impressed them, 26.8% of the participants were asked “Lauvre Museum, (Paris)”, 18% “Frida Kahlo Museum”, 13.3% “British Museum, London”, 12%, It is seen that 5 of them answered “Vatican Museum”, 6.4% “Guggenheim Museum, New York”, 6.6% “Sigmund Freud Museum” and 16.4% other. It is seen that the participants who gave the other answer mentioned museums such as the Independence Museum, Anıtkabir, Zeugma, Car Museum, Toy Museum, Topkapı Museum, Alacahöyük, Göbeklitepe, Rahmi Koç Museum, Ephesus, Atatürk Museum, Innocence Museum, Dolmabahçe Museum.

When the participants were asked where they heard about the museum that influenced them the most, 22% “Instagram”, 4.1% “Facebook”, 4.6% “Twitter”, 5.2% “News sites”, It is seen that 3.8 of them gave the answer "Newspaper", 45.1% "Friend, spouse, friend" and 5.2% other. It is seen that the participants who gave the other answer mentioned museums such as the Independence Museum, Anıtkabir, Zeugma, Car Museum, Toy Museum, Topkapı Museum, Alacahöyük, Göbeklitepe, Rahmi Koç Museum, Ephesus, Atatürk Museum, Innocence Museum, Dolmabahçe Museum.

33.5% of the participants “0-15 minutes”, 44.1% “16-30 minutes”, 14.8% “31-45 minutes” and 7.6% “more than 45 minutes” It is seen that they spend time in the museum that affects them the most.

5.3. Analysis of Scale

The validity, reliability analyzes and normality test of the scale named "Total Museum Effect", which was developed by scanning the literature, are discussed under this title

5.3.1. Exploratory Factor Analysis

Factor analysis provides the explanation of a large number of complex variables with the help of fewer factors (Altunışık et al.; 2012, 263).

Varimax rotation method was used in factor analysis. As a result of the analysis, the results of the KMO and Barlett sphericity test were evaluated. A KMO value above 0.6 will be sufficient for factor analysis of the sample. The fact that the Barlet sphericity test is significant ($p<0.05$) means that factor analysis can be performed. Afterwards, attention was paid to ensure that the factor loads were at least above 0.3.

The results of the factor analysis for the scale of "Total Museum Effect" are shown in the table below.

Table 5.3. Exploratory Factor Analysis

	Sub-Dimensions		
Scale Items	**Effect**	**Accessibility and Ease of Use**	**Impression**
1	,744		
2	,813		
3	,757		
4	,755		
5	,566		
6	,319	,541	
7			,830
8			,842
9			,773

10		,741	
11		,804	
12		,801	

As a result of the explanatory factor analysis, it is seen that the scale consists of 3 sub-dimensions. The fact that the KMO value is .875 indicates that the sample is quite sufficient for factor analysis. The result of the Barlett sphericity test (p<005) was found to be significant. The items of the scale explain 65.31% of the total variance. However, it was decided to remove the sixth item from the scale, considering that the sixth question was loaded on two factors and that if it was removed, the explanatory variance of the scale would increase.

After the sixth item was removed from the scale, the results of repeated explanatory factor analysis are shown in the table below.

Table 5.4. Exploratory Factor Analysis

	Sub-Dimensions		
Scale Items	**Effect**	**Accessibility and Ease of Use**	**Impression**
1	,749		
2	,815		
3	,764		
4	,761		
5	,583		
7			,835
8			,845

9			,774
10		,735	
11		,824	
12		,798	

As a result of repeated explanatory factor analysis for the "Total Museum Effect" scale, it was seen that the scale consisted of 3 sub-dimensions. These dimensions were named as impact (5 items), accessibility and ease of use (3 items), and impression (3 items). The KMO value of ,869 indicates that the sample is quite sufficient for factor analysis. The result of the Barlett sphericity test ($p<005$) was found to be significant. It was determined that the rate of explaining the total variance of the items of the scale increased to 67.89%. Explanation rates of the total variance according to the sub-dimensions were 26.85% in the effect dimension; 20.58% in accessibility and easy use dimension and 20.46% in impression dimension.

5.3.2.Confirmatory Factor Analysis

Confirmatory factor analysis was conducted for the scale of “Total Museum Impact” and is presentedbelow.

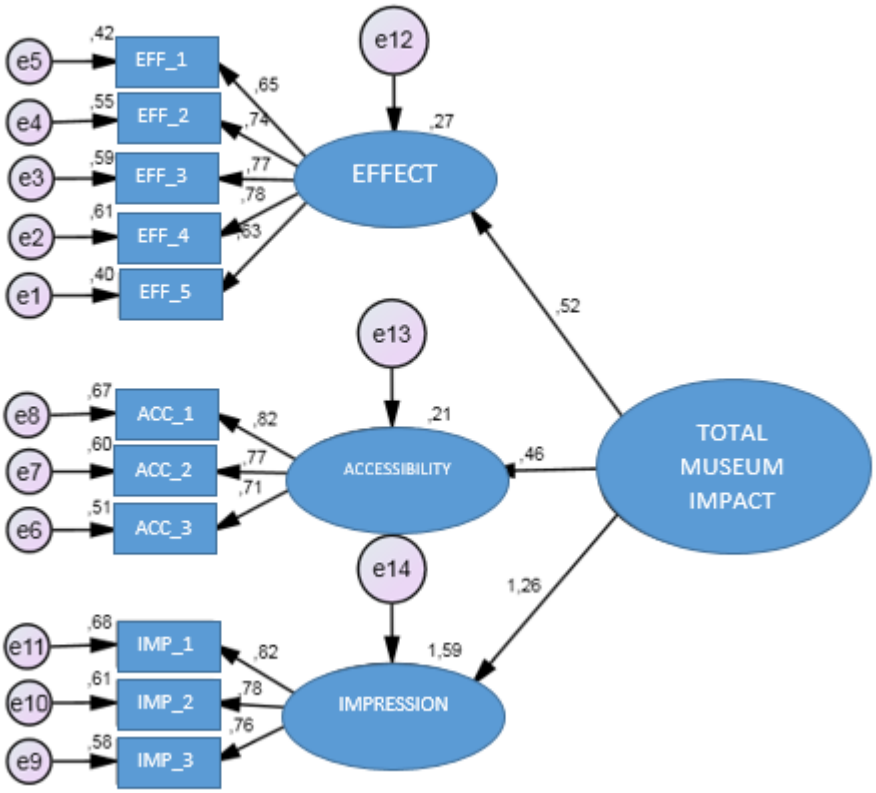


Figure 5.1. Confirmatory Factor Analysis Results Regarding the Total Museum Impact Scale

The second-level factorial structure of the total museum effect scale, which consists of three sub-dimensions and a total of 11 items, was tested using the AMOS 24 package program. Due to the normal distribution of the data, the maximum likelihood calculation method was used (Gürbüz and Şahin; 2021)

The second level confirmatory factor analysis results of the scale are presented in Figure 1. The fit values obtained as a result of the second level CFA ($\chi 2/df=2.592$; RMSEA=.069; CFI=.956; GFI=.942) show that the proposed three-factor model is compatible with the data and is acceptable.

These results show that the data obtained from the research are compatible with the predicted institutional infrastructure (three-factor) of the total museum impact scale.

5.3.2. Normality Analysis

While parametric tests are applied to data with normal distribution, non-parametric tests are applied to data without normal distribution.

According to the Kolmogorov-Smirnov Test, the data belonging to the "Total Museum Effect" scale showed a non-parametric distribution.

Table 5.5. Normality Analysis

	Kolmogorov-Smirnov Testi		
	İstatistik	df	Sig.
Total Museum Impact Scale	,129	331	,001*
Impact Size	,103	331	,001*
Accessibility and Ease of Use Dimension	,163	331	,001*
Impression Size	,163	331	,001*

With this result, non-parametric tests were applied to the data related to the total museum effect scale and its sub-dimensions.

5.3.4.General Information About the Scale

Frequency analysis results, which were carried out to determine the characteristics of the answers given to the total museum effect scale questions used in the research, are shown in the table below..

Table 5.6. Frequency Analysis Results

Scale	$\bar{X}$	**Std.Ht.**	**Medyan**	**Minimum**	**Maksimum**
Total Museum Impact Scale	4,10	,04	4,18	1,09	5,00
Impact Size	4,02	,04	4,17	1,00	5,00
Accessibility and Ease of Use Dimension	4,12	,05	4,33	1,00	5,00
Impression Size	4,15	,05	4,33	1,00	5,00

It is seen that the average score of the participants from the total museum effect scale is 4.10. Considering the highest average of 5 that can be obtained from the scale, it can be said that the total effect of online museums is quite high on the people participating in the research.

It is seen that the average score of the participants from the effect dimension is 4.02. Considering the highest average that can be obtained from the sub-dimension 5, it can be said that the effect size is quite high in the people participating in the research.

It is seen that the average score of the participants in the dimensions of accessibility and ease of use is 4.12. Considering the highest average that can be obtained from the sub-dimension 5, it can be said that the dimensions of accessibility and ease of use are quite high for the participants in the research.

It is seen that the average score of the participants from the impression dimension is 4.15. Considering the highest average that can be obtained from the sub-dimension 5, it can be said that the impression dimension is quite high in the people participating in the research.

At the same time, table 5.6 gives us the answer to the first question, which is the research question. In general, we can say that it left a good impression on the visitors.

5.3.5. Analysis Results for the Hypothesis H_1

The results of the Chi-Square analysis, which were conducted to determine whether the number of online museum visits differ according to the level of education, are shown in the table below.

Table 5.7. Number of Museum Visits

Number of Museum Visits								
	Less than 5		**6-10**		**More than 11**			
Educational Status	**N**	**%**	**n**	**%**	**N**	**%**	**χ2**	**P**
Primaryeducation	10	3,8	0	0,0	0	0,0		
High school	47	18,1	13	24,5	4	22,2	14,441	**,025***
University	172	66,2	26	49,1	9	50,0		

Postgraduate	31	11,9	14	26,4	5	27,8	
Total	260	100	53	100	18	100	

***** p<.05

It was determined that the number of online museum visits showed a statistically significant difference according to their educational status ($\chi 2$=14.441; p<.05).

Of the participants who visited less than 5 museums, 3.8% were primary school graduates, 18.1% high school graduates, 66.2% university graduates and 11.9% postgraduate degrees.

24.5% of the participants, who visited 6-10 museums, are high school graduates, 49.1% are university graduates and 26.4% are graduates.

22.2% of the participants who visited more than 11 museums are high school graduates, 50% university graduates and 27.8% graduate degrees.

5.3.6.Analysis Results for the HypothesisH_2

The results of the Chi-Square analysis, which was conducted to determine whether the number of online museum visits differed according to gender, are shown in the table below.

Table 5.8. Number of Museum Visits According to Gender

	Number of Museum Visits							
	Less than 5		**6-10**		**More than 11**			
Gender	**N**	**%**	**n**	**%**	**n**	**%**	**χ2**	**P**
Female	159	61,2	28	52,8	10	55,6	1,390	,499
Male	101	38,8	25	47,2	8	44,4		
Total	260	100	53	100	17	100		

***** p<.05

It was determined that the number of online museum visits did not show a statistically significant difference according to gender ($\chi 2$=1,390; p>.05

5.3.7. Analysis Results for the Hypothesis H_3

The results of the Chi-Square analysis, which were conducted to determine whether the number of online museum visits differ according to age, are shown in the table below.

Table 5.9. Number of Museum Visits According to Gender

Number of Museum Visits								
	Less than 5		**6-10**		**More than 11**			
Age	**N**	**%**	**N**	**%**	**n**	**%**	**χ2**	**P**
18-28	91	35,0	20	37,7	6	33,3	3,940	,685
29-38	36	13,8	8	15,1	4	22,2		
39-48	91	23,5	7	13,2	4	22,2		
49 and above	72	27,7	18	34,0	4	22,2		
Total	260	100	53	100	17	100		

***** p<.05

It was determined that the number of online museum visits did not show a statistically significant difference according to age ($\chi 2=3,940$; $p>.05$).

5.3.8. Analysis Results for the Hypothesis H_4

Correlation refers to the relationship between two or more variables. The correlation coefficient calculated as a result of the correlation analysis takes values between -1 and +1. The closer the correlation coefficient is to 1, the stronger the relationship between the two variables.

The results of the correlation analysis, which were carried out in order to determine whether there is a significant relationship between the ease of use of the online museum and the effect of the museum, are shown in the table below.

Table 5.10. Correlation Analysis

	Museum Impact Dimension	
	Coefficient	P
Ease of Use Size	,347	**,001***

A positive and moderately significant relationship was found between ease of use and museum effect (rho=.47; p<.01). It can be said that as the ease of use increases, the museum effect will also increase.

5.3.9. Analysis Results for the HypothesisH_5

In order to test whether the total museum effect differs according to the desire to visit the museum physically, the Mann-Whitney U Test was performed and the analysis results are shown in the table below.

Table 5.11. Mann-Whitney U Test

		Medyan	**Minimum**	**Maksimum**	**z**	**p**
Physically Opening the Museum Request to Visit	YES	4,18	2,09	5,00	-,575	,565
	NO	4,27	1,09	5,00		

***** p<.05

It was determined that the total museum effect did not iffer statistically significantly according to the desire to visit the museum physically (z=-.575; p>.05). It can be said that online museum visits do not have a positive effect on people's desire to visit the museum physically.

CHAPTER 6

CONCLUSION

Virtual museum visits, one of today's trends, have increased considerably, and due to the limited number of studies on this subject, we conducted a thesis on this subject. Looking at the relevant literature, it has been seen that there are a limited number of studies that reveal the satisfaction levels of individuals who make a virtual tour in the virtual museum (D'Alba, 2012, Teker & Özer, 2016). In his study, he said that it would be beneficial to re-examine the scale in larger groups with museum experience in different fields in the future. And this thesis is a study close to Tezer's research, and the ideas and views of many different groups are analyzed. Research conducted by D' Alba in 2012 also proves that the use of virtual museums has a positive effect on users before, during, and after the museum visit and can be a good alternative not only for education but also for promotional and entertainment purposes. Virtual museum visit, as supported by this research, is an activity that affects and leaves the visitors very satisfied in this thesis study.

In this thesis, age ranges and education levels are analyzed in terms of their views and ease of use on virtual museums, and the rate of directing and encouraging visits of Virtual Museums to physical museums due to the importance of museology for cities and societies in the field of tourism has been investigated and the result is an important one in the field of tourism gave results.

The first of our hypotheses is that the educational status and the virtual museum visits give a meaningful result, giving us a lot of messages.

77% of the study participants are at university or higher education level, having visited at least one virtual museum. As a result of the analysis of this hypothesis, in future studies, the limited interest of primary and high school graduates to virtual museums, the methods that can attract them to virtual museums and the reasons for less visits should be investigated.

In our second hypothesis, it was analyzed whether there was a difference according to the genders, and the lack of difference between men and women shows that gender did not make a significant difference in virtual museum studies.

It is a positive result that the number of online museum visits does not show a statistically significant difference according to age. From here we can understand that virtual museums appeal to all age groups, and in this way, virtual museum developers do not need to focus on this issue.

Our fourth hypothesis shows the positive effect that online museums have on the visitor, with the ease of use of online museums. According to this analysis, it will be beneficial for the manufacturers of virtual museums to create their virtual museums as comprehensible and easy as possible.

It has been determined that the total museum effect does not differ statistically significantly according to the desire to visit the museum physically. It can be said that online museum visits do not have a positive effect on people's desire to visit the museum physically. Physically, museum visits are a very important point for city and country tourism. For this reason, it is recommended to carry out studies for virtual museums to direct visitors to museum visits physically. This study revealed that virtual museum marketing is insufficient to physically attract tourists to the same museum and has no effect.

Finally, i would like to add that; There is a significant relationship between education level and the number of visits. This means that people at all educational levels do not

visit virtual museums at the same rate. In this context, if practitioners want to be visited more, they should try to reach people from all education levels. This study is of little importance because it reveals the relationship between virtual museum and education and is the first study in Turkish literature.

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APPENDICES

Appendix A – Survey Questions

* Gerekli

Sanal Müzelerin Ziyaretçi Davranışları Üzerindeki Etkisi

1-Cinsiyetiniz *

- KADIN
- ERKEK

2-YAŞ ARALIĞINIZI SEÇİNİZ *

- 18-28
- 28-38
- 38-48
- 48+

3-Eğitim seviyeniz nedir? *

- İlkokul mezunu
- Lise Mezunu
- Üniversite/Yüksekokul Mezunu
- Yükseklisans Mezunu
- Doktora ve üzeri

4-Bugüne kadar kaç tane fiziksel müze ziyaret ettiniz? *

- 0-5
- 5-10
- 10+

5-Bugüne kadar kaç tane sanal müze ziyaret ettiniz? *

- 1-5
- 5-10
- 10+

6-Sizi en çok etkileyen online müzenin adı nedir? *

- Louvre Müzesi, Paris
- Frida Kahlo Müzesi
- British Museum, Londra
- Vatikan Müzesi
- Guggenheim Müzesi, New York
- Sigmund Freud Müzesi
- Diğer:

7-Sizi en çok etkileyen sanal müzeyi nereden duydunuz? *

- Instagram
- Facebook
- Twitter
- Haber Siteleri
- Gazete
- Arkadaş, eş, dost
- Diğer:

8-En çok etkilendiğiniz sanal müzede yaklaşık ne kadar zaman geçirdiniz? *

- 0-15 dakika
- 15-30 dakika
- 30-45 dakika

- 45 dakikadan fazla

Online Müzenin Etkisi

Bundan sonraki tüm soruları lütfen en çok etkilendiğiniz online müzeyi düşünerek cevaplayınız.

9-Müze ziyareti, beni iş stresinden uzaklaştırdı. *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

10-Müze ziyareti, benim için değişiklik oldu. *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

11-Müze ziyaretim, bana başka insanlarla paylaşabileceğim deneyimler kazandırdı. *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

12-Müze ziyaretim sırasında, zamanın nasıl geçtiğini anlamadım. *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

13-Online müze ziyaretim sırasında kendimi müzedeymişim gibi hissedebildim. *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

14-Müze ziyaretimde, eserlerin ait olduğu dönemi ve yerleri hayal ettim. *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

15-Online Müze Ziyaretimi başkaları ile paylaşma gereği duymadım. *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

Müze Ziyareti Ulaşılabilirliği ve Kullanımı

16-Online Müzeye giriş yapacağım siteyi kolaylıkla bulabildim *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

17-Ziyaret ettiğim online müze sitesi/uygulaması user friendly idi. *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

18-Müze ziyaretim sırasında teknik bir sorun ile karşılaşmadım. *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

19-Sanal müze ziyaretinden sonra, birçok bilgi öğrenme şansım oldu *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

20-Sanal müze ziyaretimden sonra, başka bir online müze ziyaretine katılmak istedim *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

21-Sanal müze ziyaretimden sonra, müze hakkında daha fazla bilgi sahibi olmak istedim *

Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum
1	2	3	4	5

22-Online Müze ziyaretimden sonra, müzeyi fiziksel olarak da ziyaret etmek istedim. *

EVET

HAYIR