

THE USE OF AUGMENTED REALITY (AR) AND VIRTUAL REALITY (VR) IN TOURISM MARKETING

Abstract. *Recent technological advancements have transformed the dynamics of interpersonal interaction and communication, creating novel avenues for engagement between companies and consumers. Virtual Reality (VR) and Augmented Reality (AR) have become pivotal innovations, offering individuals innovative tools to navigate this evolving landscape. The tourism and travel industry has notably embraced these immersive technologies. This study independently aims to explore the applications of AR and VR in tourism marketing, drawing insights from diverse sectors such as hotels, restaurants, applications, and tourism providers in Türkiye and globally. Through a comprehensive literature review, the study elucidates key concepts. Two cases, Dedeman İstanbul Hotel and Marriott International Hotels, were examined using a qualitative research approach focusing on case study analysis. The effectiveness of AR and VR technologies in promoting travel has been evaluated. These selected case studies, analyzed through inductive reasoning, serve to illustrate the varied and impactful use of AR and VR technologies in tourism marketing.*

Keywords: *Augmented Reality, Virtual Reality, Tourism Marketing, hotel, restaurant*

Introduction. In the past, advertising was mainly performed by promoting in traditional media channels by the tourism and business actors, but today with the help of the developments in information technologies and the internet; business and tourism organisations have begun to try extraordinary sources on online platforms to catch the attention of the customers [1]. This fast-paced change in Information Technologies has affected the tourism industry, especially in operational, strategic and structural processes [2]. Therefore, tourism actors have sought to utilize more creative marketing strategies to promote their products recently and they have begun to use new information technologies more actively [3]. Utilising such new technologies has also enabled destinations to have a better position in the competitive tourism industry [4]. Those Technologies have decreased the costs of the providers by helping them to be more visible and easily accessed in the market [5]. On the other part, the innovations in enhanced search engines and developments in the speed and

capacity of networks have guided tourists to plan and experience their holidays more accurately around the globe [6]. New technologies have started to be used by tourism providers in order to meet various tourist expectations. The impressive examples of these brand-new marketing technologies are augmented reality (AR) and Virtual Reality (VR). These virtual-based technologies are more easily attainable today than they were once. As of today, 3.60 billion people own a phone capable of delivering AR and there are more than 171 million VR users who have VR headsets around the world [7]. Like many parts of our daily lives, these technologies have begun to offer immersive opportunities to tourists during their purchase experience in recent years [8]. Providing tourists with an extraordinary experience of the products and destinations, AR/VR technologies can be used before, during or even after the tourism experiences.

AR and VR are used in different arenas of tourism to meet different purposes. However, this article intends to focus on their use in tourism

marketing. In this respect, the purpose of the study is to shed light on how AR and VR are used in tourism marketing procedures both in the world and in Türkiye. The significant examples of AR/VR technology user business were examined in Türkiye and the world according to the case study method.

Smart Tourism. Smartness is a product of information technology which is created after the affords for sustainability [9]. Smartness is defined as the ability to make operational decisions by utilizing real-time and real-world data from both physical and virtual sensors, as well as sophisticated analytics, modelling, optimization, and visualization integrated into business processes [10].

Smart Tourism as a concept emerged from the destination dimension and smart cities in tourism literature [11]. Later on, the concept began to take rapid concern in tourism literature. Although smart tourism destination was the first concept to gain more ground in the literature, smart tourism has become popular in different studies over time [12-14]. The inventions that form the foundation of smart tourism were introduced at the Hannover Fair during Industry 4.0, the fourth industrial revolution. Robotization smart robotics, AR, sensors, cognitive technologies, nanotechnology, internet services, internet of things, wearable technologies, smart signalling, quantum computing and big data were among the breakthroughs that enabled smart tourism that were showcased at the event [15]. With the help of the devices created with these technologies, smart tourism provides appropriate tour information to tourists and provides travel-related services such as destination, food, transportation, reservation, and travel guides [16].

Smart tourism has emerged as a result of smart technology usage in the tourism industry. Smart destination, smart hotel operation systems, smart distant video surveillance systems, smart ticketing systems, smart tourist guide systems, and smart travel bureau systems are among the developments that primarily encompass the entire tourism sector [17]. Buhalis [18] evaluates the digitalization in tourism history

as follows. In his study, he briefly summarizes the developments that started with civil aviation in 1940 to the artificial intelligence and machine learning issues that exist today. With easy access to the internet between 1990 and 2005, the eTourism era began, and business companies continued their development through e-commerce with search engines and websites such as Google and Yahoo. Furthermore, review sites like TripAdvisor and Yelp encouraged customers to share digital word-of-mouth (eWOM) reviews, boosting image promotion, and company performance. Finally, multiple technologies such as robotics, machine learning, mobile payment, and augmented as well as virtual reality have created significant changes in today's world industries. Furthermore, advanced analytical capabilities enabled by the Internet of Things, 5G (fifth-generation mobile network), Radio Frequency Identification (RFID), smartphones, mobile phones, devices that can be worn, cryptocurrency and blockchain, sensor and beacon networks, gamification, AI (artificial intelligence), and machine learning will dominate the future of tourism. In the future, these technologies are predicted to be employed more frequently [18].

Virtual Reality (Vr) and Augmented Reality (Ar) Technologies. VR is described as the usage of a computer-generated 3D environment in which the user may navigate and engage in real-time simulation using his or her five senses [19]. In the early examples of this technology, the user can view previously recorded videos recorded by 360-degree cameras on a computer screen which enables him/ her to explore the whole environment. The most popular example of this version is Google Earth. Later with smartphones, the users have had this experience to view around by rotating their phones. The latest version of VR consists of a headset which is called head-mounted display (HMD). The HDM display enables the user to see separate images and provides a natural stereo view of a 3D environment. The user wears it on like glasses or a helmet To get a 360-degree view the user moves their head and displays the environment [20].

VR focuses on enabling the user to feel as if they are in that environment by simulating a physical environment that exists or not and it gives the user a real-like feeling [21]. It gives a strong feeling of existing in a real-like virtual environment[22].The user's movements are tracked, and the virtual world is displayed synchronized with the movements [24].In advanced versions of VR, the user can experience smelling, touching, and hearing senses, they can also identify movement, heat and humidity simulations which enables them to interact with the virtual environment and perceive their experience as real [25].

VR has four main components: virtual environment, immersion, feedback from the sensory system, and interaction. The virtual world represents the imaginary world created and shared with other users. The immersion represents the experience of reality in the virtual world which is close to the real one. The graphics, sounds and other Technologies can enable the user to immerse themselves in the virtual world whilst using the technology. The sensory feedback represents the feeling that the user experiences during their actions in the virtual world which may include the senses like taste, smell and touching. The interactivity represents the real-time interaction which enables inclusion and immersion to users with the VR system[26].

VR technology's history dates back to several decades with the developments in technology. The first examples can be found in the 1960s when computer scientist Ivan Sutherland created the basic unique head-mounted display (HMD) mechanism called "Sword of Damocles" in 1968. After that Morton Heilig made the Sensorama, a machine that laid the groundwork for immersive multisensory experiences. Later in the 1970s, the military used flight simulators to replicate the flying experience of the pilots. Advances in technology like graphics processing, and motion tracking have enabled developments in VR too in the 2010s. Palmer Luckey developed the Oculus Rift, a high-quality VR headset, which is accepted as the first steps of modern VR. Recently, various

companies, like HTC (Vive), and Sony (PlayStation VR) introduced their own headset and VR has become popular in especially gaming and entertainment. Advances in VR technology have come with improvements in display resolution, tracking systems, feedback, and the development of standalone VR headsets[27].VR is predicted to play an increasingly crucial role in various fields such as tourism as technology advances.

Augmented Reality (Ar).Augmented Reality (AR) is described as the addition of virtual objects to the actual world rather than involving the user in a completely virtual environment [28]. Guttentag (2010) emphasizes its function of enhancing the actual world with the help of layers of images created by a computer using different devices and he claims that AR is a version of VR. However, Milgram et al. [29]claim that AR is different from VR in that it is based on real-world objects whilst VR is based on completely unnatural, synthetic, computer-based objects. They represent this relationship as in the Reality- Virtuality (RV) Continuum (Figure 1). Tang (et al, 1998) backs up this assertion by stating that virtual reality employs only virtual surroundings with artificially generated pictures and animations by a computer, whereas AR uses real-world environments with virtual things [30].

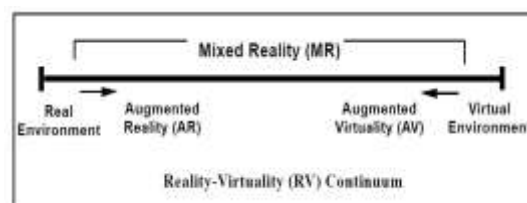


Figure 1. Reality -Virtuality (RV) Continuum
Source: Milgram et al., 1994, p. 283.[29].

In Figure 1, AR is presented as a part of the mixed reality in the reality-virtuality continuum. VR and AR, where real objects are accompanied by virtual objects, change the surrounding environment. AR augments physical reality by merging virtual items into real-world settings. As a result, developed virtual items become an integral component of the real world[29].

AR dates back to the 1960s, however, only in 1990, the phrase "augmented reality" was coined by Tom Caudell, a Boeing expert to describe an aircraft digital display system. In the mid-2000s, AR began to be used in different fields like the gaming industry and also AR-enhanced navigation systems. With the improvements of smartphones, a widespread platform for AR applications has emerged and developers have begun to create digital AR applications. In 2016 a game, The Pokemon Go proved the potential of AR around the world causing investment and interest towards AR technology across different industries [31].

The Use of Virtual Reality (Vr) and Augmented Reality (Ar) Technologies in Tourism. Once used mainly in entertaining fields like gaming VR and AR are the widely used innovations of today in different fields. Tourism is one of the sectors it is widely used today with others like communication, robotics, military and automotive [29, 32, 33, 34].

Although VR and AR are mostly used to visualise touristic destinations enriching the touristic experiences they can also be used for marketing purposes for the promotion of the destination during and before the purchasing processes [35]. AR and VR can also provide accessibility to people with enriched information about tourism destinations. The purchase experience may also be altered by the use of AR and VR. Tourists may have the opportunity to visualise the destinations in virtual environments. They may even experience tours and get information about services in first-hand accounts. They can see the dishes on a plate at the virtual restaurant or see their rooms in advance exactly the same as the actual ones in a virtual environment (Photograph -1,2. Discover the virtual world of Shangri-La Hotels & Resorts.).



Photograph- 1,2. Discover the Virtual World of Shangri-La Hotels & Resorts

Source: <https://www.shangri-la.com/vr/en/index.htm>

Accessed in : 01.01.2024

Photograph-1,2 display Shangri-La Hotels and Resorts which enables the visitors to experience the services before their visit with 360-degree visualised content.

The utilisation of AR and VR innovations in tourism, especially in marketing and promoting processes will also help providers to decrease their costs, to be up to date and to raise their attractiveness in the eye of the tourists[36].

In the past, accommodation was provided only to meet the basic needs of the guests such as beds and meals, however today, With the fourth industrial revolution and the introduction of the Internet of Things, robots, big data, VR, AR and RFID technologies have begun to be utilised in accommodation establishments more often [37]. The use of AR and VR technology by travel agency employees in destination marketing facilitates their working conditions and also helps increase product sales [38]. In addition, those

applications provide customers with extraordinary experiences, they also contribute to reducing costs and facilitating consumer feedback, thus providing businesses with a sustainable competitive advantage. They are also used in catering to reduce the waiting time of guests and save time and energy [39]. For example, a restaurant that originated in Italy, PizzaExpress enhanced smartphones with AR technology, letting guests play a 1-minute football game whilst they waited for their pizza to be prepared. An established soft drink manufacturer in Britain, Robinsons Fruit Shoot used AR to promote its product and to turn children's colouring placemats into interactive activities at several restaurants throughout the nation. Also, takeout establishments like Pizza Hut, an American restaurant company, partnered with Pac-Man to create a limited-edition pizza package that utilizes AR to bring the famous game to life. Consumers could experience nostalgia by scanning the QR code on the package (Ferrandez, 2024). [40].

Conditions and methods of research. In this study, an example of an AR application from the world and an example of a VR application from Türkiye and their utilisation in tourism marketing were examined. The first section included a literature review and a detailed explanation of the topics. Then, as one of the qualitative research approaches, a case study (case study analysis) was performed. Qualitative research is defined as a study that employs qualitative data-gathering techniques such as observation, interviews, and document analysis, as well as a qualitative process to disclose perceptions and happenings in the natural environment realistically and comprehensively [41]. A case study is a type of qualitative study where the researcher investigates one or a few situations in depth over a limited period of time using data collection tools that include a variety of sources (observations, interviews, visuals and audio, documents, reports), situations, and themes that relate to the situation [42]. In this study, two cases (İstanbul- Dedeman Hotel and Marriott International Hotels) were analyzed, and evaluations were made on the use of AR and VR

technologies in terms of tourism marketing. The selected examples are intended to portray the use of AR and VR innovations according to inductive reasoning in the arena of tourism in Türkiye and the world. This research depends on a case study on the question "What role and importance do AR and VR applications play in tourism marketing in Türkiye and the world?"

Research results. The Use of AR and VR Technologies in the World in Tourism Marketing. AR and VR are also utilised in promotion and marketing in tourism. Several hotels, restaurants and travel agencies have been using AR and VR in their offerings and promotional campaigns today. In this part of the article, the examples of the establishments that use AR will be exemplified under the headings: "Hotels, Restaurants, Tourism Providers, Museums, Apps for Travel" and different establishments around the world using VR also be exemplified. At the end of this section, Marriott Hotels, which uses VR at their service will be presented in detail as a case study.

Organizations Worldwide Using AR as a Tourism Marketing Tool

Holiday Inn: The hotel offers a unique and enjoyable interactive experience for visitors by utilizing AR technology in a feature that lets users point their smartphones to see virtual representations of well-known celebrities throughout the hotel [43].

Kabaq: This business specializes in AR menu experiences that let customers see 3D models of meals and visualize their dishes through the use of cutting-edge scanning technology and gamification before placing an order [44].

Domino's: The "New Pizza Chef" program, introduced by the pizza chain Domino's, lets customers customize their orders by letting them construct their own pizza [40].

Tourism Providers: Expedia: Expedia has been using AR to create virtual tours of hotel rooms and holiday spots [45].

Airbnb: To enhance the user experience, Airbnb has experimented with AR, offering virtual tours of available rental units [45].

Museums: AR is frequently used by museums and historical sites to provide guided tours and

interactive exhibits. For instance, the Louvre in Paris uses AR to offer more details about its collection of artwork [46].

Apps for Travel: Google Maps: In certain places, AR navigation for walking directions is available thanks to Google's integration of AR elements into the Maps app [47].

The Worldwide Organizations Using VR as a Tourism Marketing Tool. VR is used in the tourism arena to produce captivating and immersive marketing campaigns that give prospective tourists an inside look at places and distinctive experiences. Such advertising works best when it arouses feelings and encourages travel to actual places [36]. Here are examples of VR use in tourism marketing.

Tourism Australia's Virtual Kangaroo Island: To promote Kangaroo Island, Tourism Australia developed a VR experience. Users received VR headsets, which let them digitally experience the island's natural beauty, fauna, and tourist destinations. The goal of the campaign was to encourage tourists to go there in person Higgins-Desbiolles. [48].

The Australian Airline Qantas' VR Tours of Destinations: The Australian airline Qantas has included a VR experience in a few of its lounges. VR headsets may be used by travellers to take virtual tours of Australian locations while they wait for their flights, which would help them plan their trips and motivate them to see more of the country [49].

Travel Business Thomas Cook in the UK: Travel business Thomas Cook in the UK experimented with using VR in their stores, providing clients with virtual tours of various vacation spots. This made it possible for prospective visitors to take in the sights and sounds of other places before making a reservation [50].

VisitScotland's Virtual Reality Experience for The Kelpies: The Kelpies are a well-known sight in Scotland. Users could "ride" on the back of a legendary water horse in the VR experience, which offered an immersive and distinctive viewpoint of the sculptures [51].

VR Videos in 360 degrees from Dubai Tourism: The Tourism Board of Dubai unveiled 360-degree VR videos that highlighted the city's landmarks, five-star hotels, and cultural events. The objective of this immersive video was to captivate prospective travellers and provide them with a preview of Dubai's offerings [52].

Virtual Safari Tours by South African Tourism: A virtual safari tour is available to consumers through a VR experience created by South African Tourism. This promoted South Africa as a safari destination by giving potential tourists a taste of the country's wildlife and sceneries [53].

The Wild Within Virtual Reality Campaign by Destination British Columbia: With the debut of "The Wild Within," a virtual tour of the province's natural wonders is offered by Destination British Columbia. The goal of the immersive experience was to stimulate curiosity and investigation [54].

A Case Study of a Hotel which Uses VR at Their Service: Marriott International Hotels. Marriott International is one of the first tourism actors that has used VR technology. To improve visitors' stays, Marriott has experimented with VR in the form of virtual room tours and interactive activities [55]. VR postcards were used by certain Marriott Hotels to promote other Marriott sites and hotels while enabling visitors to virtually tour a variety of Marriott destinations across the globe using VR headsets in their rooms [56].

Marriott, a globally significant hotel chain, has implemented technological tools that allow prospective guests to learn about hotel operations, thereby mitigating uncertainties and streamlining reservation processes.

Marriott Hotels introduces the ground-breaking VRoom Service (Photograph-1,2) in response to the challenge of reinventing the travel experience. The Marriott Hotel offers its visitors more than just scenic locations; through the world's first in-room VR Travel experiences, it tells sympathetic personal stories. This program is motivated by the realization that authentic travel experiences are more than just stamps on a

passport. Marriott hopes to motivate visitors to reevaluate their travel expectations and take on new experiences by showcasing the personal lives, professions, and tales of travellers through the use of VR. Here the hotel aims to promote its services for the next marketing processes.



Photograph-1,2. Marriott Hotels' VRoom Service, the VR Postcard experience

Source:

(<https://framestorevr.com/marriott-vr-postcards> accessed on 07.01.2024)

The main concept of this service is it takes the form of in-room VR Travel experiences, which include trip journals from three international explorers visiting various locations like the Andes highlands in Chile and locals in rural Rwanda (Photograph-3.4).



Photograph-3.4. Locals in Rural Rwanda and Andes Highlands in Chile through The Virtual Tour

Source:

(<https://www.cococattano.com/work/marriott-vr-postcards>, accessed on 07.01.2024)

The impact is obvious on social media and PR channels, with five hundred million views on social media and three hundred million PR interactions. Marriott Hotels have successfully merged technology and travel by enabling their customers in New York and London to order the VR Postcard experience through room service. VR travel offers a compelling connection between

technology and the travel business, as VRoom Service exemplifies thus enabling the hotel to promote its products innovatively as a brand-new example of marketing in tourism.

Marriott also has an application called "The Marriott Teleporter" (Photograph -6). It enables the users to experience the first-ever 4D VR travel. The Marriott application was introduced at an event in New York.



Photograph -5 The Marriott Teleporter in New York

Source: <https://framestorevr.com/marriott>, accessed on 07.01.2024

Marriott extended an invitation to #GetTeleported to everyone in the world from the lobby of the JW Marriott in the heart of Washington, DC. Winners were invited to the debut of the campaign, which began with a Reddit post asking people, "Why should you be one of the first to experience virtual travel?" The virtual experience began with a tour of the brand-new Marriott Greatroom lobby and concluded with the tourist arriving at a black sand beach on Maui via a light tunnel (Photograph-6,7).



Photograph-6,7. Virtual Experience from the Marriott Greatroom Lobby to Black Sand Beach on Maui

Source:

<https://www.youtube.com/watch?v=AWxSOjfqMvI>, accessed on 01.01.2024

In addition, users were given access to 360-degree live-action video that was blended with authentic computer-generated visuals to create an almost realistic experience. Possible visitors were shown some content along with VR goggles and extra 4D features including heat, wind, and shaking floors. With this application the hotel plans to persuade visitors to visit these destinations and stay in Marriott hotels in various places of the world.

The Use of AR and VR Technologies in Türkiye in Tourism Marketing. The use of AR and VR in promotion and marketing in Türkiye's tourism marketing is limited when compared to the world. Only a couple of restaurants and hotels have been using AR in terms of tourism marketing in Türkiye. However, as of the date the study was prepared, only Dedeman İstanbul Hotel has been spotted in the literature review as a VR provider in their offerings and promotional campaigns. The hotels and restaurants using AR in Türkiye will be presented in this section. Then Dedeman İstanbul Hotel which uses AR (also VR) in their service will be presented in detail as a case study.

Here are a few examples of AR applications from hotels and restaurants from Türkiye:

Zeydem Suites: Converted from a 150-year-old Greek mansion into a hotel, Zeydem Suites has rock suites on an area of 1500 square meters in Esbelli, the historical street of Ürgüp. The visitors can view the hotel and its rooms with AR in the form of 3D virtual room tours through the website of the hotel (<https://zeydemsuites.com>, accessed on 06.01.2024).

Çırağan Palace Kempinski: A five-star hotel in the Kempinski Hotels brand, Çırağan Palace Kempinski was once an Ottoman palace. It is situated in Istanbul, Türkiye, between Beşiktaş and Ortaköy, on the European side of the Bosphorus. Through a 3D virtual tour, visitors may investigate the amazing atmosphere of the palace as though they were physically present. More than 400 locations across the palace are scanned, allowing guests to move around as though it were

real (<https://surveyhands.com/works/ciragan-palace-kempinski-3d-virtual-tour/>, accessed on 06.01.2024).

Restaurants: Kolcuoğlu Ürgüp Restaurant: Kolcuoğlu Ürgüp Restaurant, which has a history of 350 years, started to serve under the Kolcuoğlu Ürgüp brand after meticulous restoration works that started in 2003 and lasted 6 years. Visitors can see the restaurant's service areas and the location of the tables in 3D through the website. However, a 3D display of the menus is not currently available yet (<https://matterport.com/discover/space/cEHdpHohTqZ>, accessed on 06.01.2024).

Tarihi Sultanbahtî Köftecisi/Sultanahmet: The restaurant, established in Sultanahmet Divanyolu Street in 1982, offers products of Ottoman-Turkish cuisine. Visitors can taste Turkish cuisine at the Historical Sultanbahtî Köftecisi located in Sultanahmet Square, Istanbul, while also seeing the historical texture and impressive design in 3D on the website (<https://sultanbahtikoftecisi.com/hakkimizda/>, accessed on 06.01.2024).

A Case Study of a Hotel which Uses AR at Their Service: Dedeman İstanbul Hotel. AR tours are one of the most important visual resources that can directly affect visitors' decision-making processes, especially at hotels. AR tour allows domestic or international guests to see all the details of the hotel they will stay in before their accommodation. Dedeman İstanbul is one of the few tourism actors in Türkiye that use AR technology. To improve visitors' stays, Dedeman İstanbul enables a virtual visit for its guests through its website. The website also enables VR mode for the guests. Considering that the photos and videos presented on their websites are not enough to attract the attention of the guests and be successful in convincing them, Dedeman Hotels Group includes AR tours on their websites. 360° Virtual Tours, where every detail of the facilities can be seen and thus it aims to attract the guests and affect their booking intentions positively. The tour begins in front of the hotel, the hotel may also be viewed panoramic (Photograph-8,9).



Photograph-8,9. Dedeman İstanbul Street View and Panoramic View.

Source:<https://www.sanal-tur.com/galeri/dedeman-istanbul/>, accessed on 07.01.2024



The visitors may either follow the arrows on the screen or the menü on the left. They explore the hotel through a 360° Virtual Tour. On the menu, there is also VR mode which enables users to take the tour in VR either with VR glasses or on a split screen (Photograph-10,11).



Photograph- 10,11. Dedeman İstanbul, Lobby Tour in VR Mode.

Source:<https://www.sanal-tur.com/galeri/dedeman-istanbul/>, accessed on 07.01.2024

The visitors can view the lobby, rooms, restaurants and spa centre through the tour. The tour only enables the guests to view the hotel. The

guests are unable to see the menu on the tour or watch the view. They just can have information about the facility. They can see what the restaurants and rooms are like (Figure- 13,14).

Photograph - 12,13 Dedeman İstanbul, a Room and the Restaurant
Source:<https://www.sanal-tur.com/galeri/dedeman-istanbul/>, accessed on 07.01.2024

Considering the utilisation of smart technologies such as AR and VR in tourism, especially in tourism marketing, only a few examples can be taken into consideration. Dedeman İstanbul is one of the finest examples of them.

Discussion of the results.A new era in product promotion has begun for several hotels, restaurants, and travel agencies worldwide thanks to AR and VR technologies. Despite its attractiveness, this technology is new and expensive. For this reason, it is currently used only by a small number of more powerful hotel chains with the necessary investment. Türkiye uses it even less frequently than the rest of the globe. Future tourism marketing will make greater use of AR and VR technologies since they provide travelers with novel experiences, diverge from traditional promotional efforts, spark interest, and make use of technical instruments' allure. Türkiye will contribute to its promotion and revenues by expanding the use of AR and VR especially in tourism marketing in the future. Based on the study's findings, it can be concluded that Türkiye is just getting started with AR and VR applications. On the other hand, Türkiye will experience a major boost in tourism promotion if AR and VR technologies are fully integrated, similar to other successful cases worldwide.

Conclusion.The research outcomes underscore the transformative influence of AR and VR in the arena of tourism marketing. The immersive quality of AR and VR applications has proven to be a powerful attraction for customers, impacting their decisions to make reservations at hotels and restaurants. These technologies are attractive because they can produce memorable and captivating experiences that enhance the

overall attractiveness of travel-related products. It is essential to note, nevertheless, that AR and VR are only now beginning to be widely used in the travel and tourist sector. Because the technology is still relatively new, it is not widely used even if it shows promise in the world and the scope of Türkiye. Furthermore, compared to worldwide trends, the high implementation costs of AR and VR systems limit their current utilization and prevent their general adoption.

There is a definite trend towards higher use in the future despite these constraints. It is anticipated that AR and VR technologies will become more widely used in travel and tourism marketing as they become more accessible and affordable. As these technologies become more widely available and affordable, the industry expects a broader integration of them, therefore the current restricted utilization can be assumed probably just as a temporary phase.

Essentially, the study finds that although the current state of tourism marketing may be marked by a restricted and relatively exclusive use of AR and VR, the potential advantages—like increased consumer engagement and conversion rates—place these technologies as essential parts of the marketing toolkit for hotels, restaurants, and other tourism providers in the future. The trend suggests that in the future, AR and VR will be crucial in determining how tourism experiences are portrayed, providing an interesting and technologically advanced window into the business environment.

On a global scale, several strategic considerations for businesses and industry stakeholders are suggested by the revolutionary potential of AR and VR in tourism promotion and marketing. Collaborative efforts are essential to enable widespread adoption. In addition to fostering interoperability, setting worldwide standards for AR and VR technology would help reduce prices, opening up these advances to a

wider range of organizations. Technology consortiums and industry associations ought to take the lead in encouraging this kind of cooperation. Furthermore, to explain these technologies to organizations worldwide, educational programs are essential. Global collaborations between tech companies and travel businesses can spur innovation and assist in creating more specialized, approachable solutions that appeal to a range of customers. International policymakers should think about establishing a regulatory framework that is conducive to innovation, and cross-border projects can share best practices and quicken the adoption curve.

In the specific context of Türkiye's tourism arena, there are some opportunities and challenges for the implementation of AR and VR in tourism promotion and marketing. To pool resources and share experience, local enterprises should look into joint ventures within Türkiye. This would help to establish a conducive ecosystem for technological advancement. Türkiye has distinct advantages that can be enhanced by AR and VR applications because of its rich cultural and historical resources. Companies should concentrate on modifying their marketing tactics to highlight these resources and produce immersive experiences that appeal to consumers in both domestic and foreign markets. Furthermore, developing alliances between Türkiye's technology suppliers and tourism stakeholders can spur creativity and advance the creation of apps that are especially suited to the distinctive features of the regional market. The governments should need to build a supportive regulatory environment, offer incentives and subsidies, and remove the initial cost challenges to encourage wider use. In the end, the integration of AR and VR technologies into tourism promotion and marketing in Türkiye will support the ongoing development of Türkiye's tourism industry.

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ТУРИСТИК МАРКЕТИНГТЕ ТОЛЫҚТЫРЫЛҒАН ШЫНДЫҚТЫ (AR) ЖӘНЕ ВИРТУАЛДЫ ШЫНДЫҚТЫ (VR) ПАЙДАЛАНУ

Андатпа. Қазіргі технологиялық жетістіктер тұлғааралық қарым-қатынас және коммуникация динамикасын өзгертіп, компаниялар мен тұтынушылар арасындағы өзара әрекеттесудің жаңа жолдарын жасады. Виртуалды Шындық (VR) және Толықтырылған Шындық (AR) жеке тұлғаларға осы дамып келе жатқан технологияларға бейімделу үшін инновациялық құралдарды ұсынады. Туризм және туризм индустриясы осы иммерсивті технологияларды ерекше қолданды. Бұл зерттеу Түркиядағы және дүние жүзіндегі қонақүйлер, мейрамханалар, қолданбалар және туристік провайдерлер сияқты әртүрлі секторлардан ақпарат ала отырып, Туристік маркетингтегі AR және VR қолданбаларын дербес зерттеуге бағытталған. Әдебиеттерді жан-жақты шолу арқылы зерттеу негізгі ұғымдарды түсіндіреді. Екі кейс, Dedeman Istanbul Hotel Және Marriott International Hotels, жағдайлық зерттеулерді талдауға бағытталған сапалы зерттеу тәсілін қолдана отырып зерттелді. Саяхатты ілгерілетудегі AR және VR технологияларының тиімділігі бағаланды. Индуктивті пайымдау арқылы талданған осы таңдалған тақырыптар зерттеулер туристік маркетингте AR және VR технологияларын әртүрлі және тиімді пайдалануды көрсетуге қызмет етеді.

Тірек сөздер: толықтырылған шындық, виртуалды шындық, туристік маркетинг, қонақ үй, мейрамхана

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ИСПОЛЬЗОВАНИЕ ДОПОЛНЕННОЙ РЕАЛЬНОСТИ (AR) И ВИРТУАЛЬНОЙ РЕАЛЬНОСТИ (VR) В ТУРИСТИЧЕСКОМ МАРКЕТИНГЕ

Аннотация. Современные технологические достижения изменили динамику межличностного взаимодействия и коммуникации, создав новые возможности для взаимодействия между компаниями и потребителями. Виртуальная реальность (VR) и дополненная реальность (AR) стали ключевыми инновациями, предлагая людям инновационные инструменты для ориентации в этом меняющейся технологии. Индустрия туризма особенно активно использует эти иммерсивные технологии. Это независимое исследование направлено на изучение применения AR и VR в туристическом маркетинге, опираясь на информацию из различных секторов, таких как отели,

рестораны, приложения и поставщики туристических услуг в Турции и во всем мире. Благодаря всестороннему обзору литературы в исследовании разъясняются ключевые концепции. Два кейса, Dedeman Istanbul Hotel и Marriott International Hotels, были рассмотрены с использованием качественного исследовательского подхода, сосредоточенного на анализе конкретных случаев. Была проведена оценка эффективности технологий дополненной реальности и виртуальной реальности в продвижении путешествий. Эти отобранные тематические исследования, проанализированные с помощью индуктивных рассуждений, служат иллюстрацией разнообразного и эффективного использования технологий дополненной реальности и виртуальной реальности VR в туристическом маркетинге.

Ключевые слова: дополненная реальность, виртуальная реальность, туристический маркетинг, отель, ресторан

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