Sanal Gerçeklik Teknolojisi Turizm Sektörü İçin Fırsat mı? Tehdit mi?

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Öz

Günden güne hızla gelişmekte olan ve hayatın her alanında kullanılmaya başlanan internet ve bilişim teknolojileri, turizm alanı için de önem kazanmış ve hem ulusal hem uluslararası yazında incelenmeye başlanmıştır. Bu kapsamda turizm ve sanal gerçeklik teknolojisi arasındaki güncel tartışmaları değerlendirmek amacında olan bu çalışma, turizm alanyazınında ortaya konulan çalışmaları ele alarak sanal gerçeklik teknolojisinin turizm sektörüyle olan ilişkisini daha iyi anlayabilmek adına ortaya konmuştur. Çalışmanın amacına bağlı olarak iki araştırma sorusu sorulmuş ve bu sorulara yanıt aranmıştır. Alanyazın incelendiğinde bu sorulara yanıt olarak; turistlerin henüz sanal gerçeklik teknolojisi ve uygulamalarına yüzde yüz bir şekilde entegre olmadığı, her ne kadar bir çok konuda fayda ve kolaylık sağlasa da, bir süre daha klasik turizmin, söz konusu teknoloji uygulamalarına karşın tercih sebebi olacağı sonucuna ulaşılmıştır. Ayrıca sanal gerçeklik teknolojilerinin fırsatlar barındırdığı kadar içerdiği olumsuzluklar nedeniyle turizm sektörünü temelden etkileyecek tehditlere de açık olduğu söylenebilir.

Anahtar Kelimeler

Turizm, Sanal Gerçeklik, Teknoloji, Literatür Taraması

Atıf Bilgisi

A Discussion on Whether Virtual Reality Technology is an Opportunity or a Threat for the Tourism Industry

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Abstract

The Internet and information technologies, which are developing rapidly day by day and are being used in all areas of life, have gained importance in the field of tourism and have begun to be examined in both national and international literature. In this context, this study, which aims to evaluate the current debates between tourism and virtual reality technology, has been put forward in order to better understand the relationship of virtual reality technology with the tourism sector by considering the studies in the tourism literature. Depending on the purpose of the study, two research questions were asked and answers were sought for these questions. When the literature is examined, in response to these questions; It has been concluded that tourists are not yet fully integrated into virtual reality technology and applications, and although it provides benefits and convenience in many subjects, classical tourism will be preferred for a while over the said technology applications. In addition, it can be said that virtual reality technologies are open to threats that will affect the tourism sector fundamentally due to the negative effects they contain as well as opportunities.

Keywords

Tourism, Virtual Reality, Technology, Literature Review

Citation

Introduction

Today, the advancement of technology has enabled the development of devices suitable for this technology. With these devices, the use of the Internet has become more widespread, and sharing such as sharing information over the Internet has increased. Thus, by providing people with easy access to all kinds of information they need, the transactions and processes they perform have become even easier. The Internet accelerates the flow of information around the world and provides advantages in terms of time and space. When the digital marketing agency We Are Social examines the "Digital in 2022 Global Overview" report prepared in collaboration with Hootsuite, it is seen that 4.95 billion of 7.9 billion people are active internet users.

The spread of the Internet and other technological innovations have changed the structure of the tourism industry, as well as how tourist product is perceived and consumed. As information technologies have developed, three-dimensional virtual worlds have emerged for commercial activities such as information dissemination, advertising, and sales transactions (Avcı, 2021, pp. 138). As it makes people's lives easier, their interest in the virtual environment has also started to increase. This, along with new and modern technology, has brought concepts such as virtual reality and virtual tours to the agenda. The development of the virtual tour has begun to be used to generate interest and curiosity in internet users and potential customers. Virtual reality technology has many benefits specific to every field, such as providing a sense of reality in the virtual environment, creating different experiences, and providing information and convenience. For this reason, virtual reality applications have been used in many areas in recent years and it is thought that they will maintain their importance for many years (Guttentag, 2010, pp. 646). However, the continuity of technological developments and changes requires the actors in the tourism sector to constantly update themselves in terms of marketing and management processes.

Today, virtual reality applications and the creation of three-dimensional panoramic images have opened the doors of the three-dimensional world to us, and touristic areas and destinations have begun to be presented to tourists with virtual tours. Virtual reality applications adopted in the tourism sector also emerge as applications that can take this alternative reality to the next level. This feature plays a vital role in sectors such as the tourism sector, where products and services are intangible and there is no chance to try them beforehand. Potential tourists can have an idea about destinations by using virtual reality applications and these experiences are effective in their decision-making processes. Virtual reality applications provide richer and more interactive information compared to traditional 2D promotional tools such as brochures (Wan et al. 2008). The aim here is to provide tourists with information and experience before they go to the destination. Virtual reality applications are among the tools that can be used to provide tourists with this experience before they go to those destinations in order to achieve this goal.

The aim of this study is to examine and discuss the threats that virtual reality technology and applications, which have recently started to attract attention in the field of tourism, as well as the opportunities it provides to the tourism sector, as well as the threats it can bring to the tourism sector. It is foreseen that virtual reality technology will contribute to the tourism literature and guide the sector practitioners in terms of examining the applications of virtual reality technology in tourism, evaluating its strengths and weaknesses, and drawing attention to the position of the said technology in terms of tourism marketing.

1. Literature Review on Virtual Reality Technology in Tourism

With the developing technology, the benefits offered by the digital age are increasing. Thanks to this developing technology, people can access information more easily. As a result of this situation, the tendency of people to buy is also increasing (Eryılmaz & Aydın, 2021, pp. 18). Virtual reality technology has also become a strong link in tourism marketing. Virtual reality provides extensive information about the services or products that users want to buy and also offers the chance to try the services or products virtually. For example, the hotels to be visited, the places of interest in the destination regions, the meals offered in the restaurants, the production stages of the meals, and similar services, such as providing the opportunity for tourists to see and live in a virtual way without going to the place where the movement is. The use of these technologies in marketing is considered important in terms of providing customer-oriented service, promotion of new products, and ease of sale by considering reality and artificiality together in images, objects, texts, and 3D animation figures (Demirezen, 2019, pp. 9). The prediction that the perceived 3D experience in the tourism sector will continue to positively affect the travel intentions of users (Go and Gretzel, 2016) further supports this situation.

With the latest developments in technology, virtual reality has become a common and effective marketing tool for the tourism industry. Destinations, hotels, and tour operators can benefit from low-cost virtual reality applications to provide immersive experiences (Skard et al. 2021, pp.2). Especially since the service offered in accommodation establishments is intangible, technologies such as virtual reality are used to eliminate uncertainty (Kabadayı, 2020, pp. 464). In summary, virtual reality applications can be a unique resource, providing an accessible tourism experience for everyone, and transforming traditional tourism applications into a product with an intangible and experimental essence (Li et al. 2021, pp.2). With the use of virtual reality and the increase in its advantages, businesses have tended to follow and use technology in this field. It can provide a preliminary experience that was not possible in the tourism sector before, and it enables businesses using this technology to differentiate from other businesses and create a brand image. The pre-experience allows the formation of potential customers, the tendency of people to companies that use technology, and the increase in demand accordingly. Businesses that keep up with technology and are in constant follow-up will be

in a position to get ahead of businesses that are not open to technology and lead the tourism industry by creating sector competition (Durmaz, Bulut, & Tankuş, 2018, pp. 38). The market share of Virtual Reality (VR) technologies, which was 12 billion dollars in 2021, is expected to increase to 22 billion dollars in 2025 (Statista, 2022). It is very important to foresee how these reality technologies will increasingly transform the tourist experience and how they will create changes in the marketing strategy of experience products in the tourism industry. Therefore, to gain these advantages, many destinations invest in virtual worlds as an innovative platform for promotion, communication, and attracting potential visitors (Huang et al. 2013, pp. 491).

The technological developments, the more globalizing world, and the tougher competition conditions have pushed not only tourism businesses but also touristic destinations to use different technologies. In the marketing of destinations as tourist products, it has become a necessity to use technology in order to attract more visitors and keep their current potential (Rivera et al. 2016, pp. 33). New technologies have influenced the innovation of products, processes, and management, changing the way tourism providers create and deliver tourism experiences, and tourists perceive and experience destinations (Huang et al. 2016, pp. 120). This technology can be very useful not only for attracting the attention of hard-to-reach consumers to destinations and developing new products but also for positively changing the view of a potential visitor about the destination (Avcı, 2021, pp. 143). At the same time, virtual tours, which provide a complete picture of the hotel and its destination, help potential tourists become familiar with the destination before their visit, thus making them less anxious (Lee and Oh, 2007, pp. 585).

One of the best examples of virtual reality technology in the tourism sector is Marriott Hotels, which is the head of the accommodation businesses that use this technology most effectively. It is the first example of the sector with its investment in reality technologies in 2014 with the slogan of "Travel Brilliantly". The company, which promotes its hotels and destinations with its Virtual Reality cabin called Teleporter, has succeeded in providing potential consumers with a preliminary experience through this special device with heat, wind, odor, and feedback floor features. Bringing Virtual Reality technology to the accommodation industry, the company offers hotel guests the experience of traveling to different parts of the world virtually using Samsung Gear VR devices with an application called "VRoom Service" in the future (Avcı,

2021, pp. 145). As another example, Hilton Hotels & Resorts, one of the world's largest hotel chains, has started to use virtual reality videos to directly influence the reservations of potential guests. Having prepared 360° virtual reality videos for its hotel in the Caribbean in 2016, Hilton allows guests to watch the pristine beaches as if they are watching from the balcony of their rooms, take a stroll in the forest, and snorkel, via their mobile devices. In another example; Best Western, which has a 360° virtual tour application for all North American hotels, is another accommodation business that successfully applies virtual reality technologies and is among the 10 Most Innovative Businesses of the World in 2018

(Dilek, 2020, pp. 74-76). To give an example for travel agencies, Thomas Cook, the British tour operator in the travel and tourism industry for more than 175 years, started the "Try Before You Fly" campaign in 2014, which allows potential tourists to explore touristic destinations with virtual reality devices and is the first to use virtual reality technology in travel businesses. became a travel agency. Working with the London-based virtual reality agency Visualise, recording 360° videos in 12 different parts of the world, Thomas Cook has taken a groundbreaking position in the sector by owning the world's first virtual reality tourism videos (Dilek, 2020, pp. 62). Development is effective in creating potential tourists in the tourism sector. The increase in the use of virtual reality as a promotional tool has created great opportunities for businesses and governments to increase their tourism earnings, give people a preliminary experience, and affect their decision-making processes. In addition, people will be able to see touristic places thanks to virtual reality applications when they do not normally have the chance to go or have ample time to spare. Businesses and governments have turned to virtual reality technology created by the creation of large databases and the use of advanced computer systems (Durmaz, Bulut, Tankuş, 2018 pp. 36).

In recent years, the potential of virtual reality technology to transform the tourism industry has been frequently discussed. As in many areas, tourism is seen as one of the sectors that can benefit from the advantages of virtual reality technology. By using this technology, companies can continuously develop to create customer satisfaction when providing this technology to customers. With the rapid development of virtual reality, people from the comfort of their own homes, can take virtual trips to the moon, planets, stars, and other destinations they want to see (Yüksek et al. 2020, pp. 20). For the tourism sector of virtual reality technology; accessibility (for disabled, elderly, and economically disadvantaged individuals and for remote, unsafe, destroyed, or no longer available) and ease of access to information (Cheong, 1995; Guttentag, 2010) (Cheong, 1995; Williams & Hobson, 1995), providing environmental and economic sustainability by eliminating the negative effects of tourism (Dewailly, 1999), making an effective travel decision (Jung et al. 2017).

Virtual reality technology creates three-dimensional visual objects and virtual environments in tourism, and tourists' tourism businesses, destinations, museums, historical, cultural, and architectural areas, etc. It offers the opportunity to experience places in this virtual environment as if they were real before. In addition, it guides tourists in the destination and gives them information about tourist, historical, architectural, and cultural places and tourism businesses. Well; Virtual reality technology is used in tourism businesses, destinations, museums, etc. from the moment the tourism activity is started until the end of the tourism activity. It provides many benefits to attractive places, tourists, and everyone in tourism. Therefore, the use of virtual reality technology in tourism is very important. It is an innovation that will change tourism in the future, and the tourism industry and people need to act in accordance with this innovation (Demirezen, 2019, pp. 2).

Virtual reality technology, which is one of the important technological developments and which is expected to affect the tourism sector to a great extent today, has some negative effects on the sector, directly or indirectly, besides creating opportunities. These negative effects, created at the individual and social level, are of course reflected in a sector such as tourism, where human is the leading role. Virtual reality technologies, as one of the technologies that are increasingly taking place in our daily lives; can lead to some economic, sociological, and psychological problems. A representative model is produced by combining virtual reality technology and the basic elements of reality, and this model plays the role of a past or future event or situation. In this case, reality is destroyed for the benefit of this new reality of the model produced by him (Baudrillard, 2004).

Today, it is seen that almost every sector has become more and more dependent on technology, especially in the production, management, and marketing stages, and it is seen that one of the sectors affected by technology is tourism. In the foreign literature, the current and future contributions of developing technological applications to tourism and their importance in terms of marketing are mentioned (Cheong, 1995; Eden & Gretzel, 2012; Rivera et al. 2016; Yovcheva et al. 2012) however, it is questioned whether this contribution will gradually become a competitor. In the study of Guttentag (2010); while referring to the concept of virtual reality, which is one of today's technologies, a technological application that offers an experience in a completely virtual environment isolated from real life, he examines the subject and draws attention to the necessity of questioning it even though it seems insignificant at first glance. Tourism describes the act of people always traveling from one place to another and staying in a different place. Guttentag states that individuals can no longer be considered tourists, considering that they visit museums and historical places from their own homes thanks to technological applications, thanks to virtual reality applications, and draws attention to the fact that this event can be seen as a substitute for tourism. It would not be wrong to say that virtual reality can create a virtual rival to tourism, considering that, thanks to the developing programs, individuals can now see whether there are empty rooms in a hotel and even the room prices, they can provide all kinds of information on the trips they attend without the need for a guide, and they can see the three-dimensional version of the works exhibited in the museums on the book. For example, the fact that people who live in distant places or do not have the opportunity to visit museums can reach museums and have different experiences thanks to virtual reality technology, which clearly shows that tourism is facing a virtual rival. Considering that virtual reality applications can play a more active role in tourism over time, perhaps individuals will sometimes consider the economic conditions and sometimes evaluate the negative developments in the destinations they intend to travel, and will change the rule of tourism 'going to a region other than the place where they always live and staying there for at least 24 hours'. They will be able to become 'virtual tourists' at a time when everything starts to become virtual. In today's technology environment, in which there is a rapid transition period in which correspondence to mailing, black and white televisions

to smart televisions, and even the smart type of toilets are being developed, it will not be surprising that tourists also become virtual. The emergence of such a situation may adversely affect almost every destination that has a claim in tourism, which is a labor-intensive sector.

Today, there are various discussions on virtual reality applications, both in theory and in practice. The discussions in question focused mostly on the effects of virtual reality applications on the tourism sector; It emerges both positively and negatively as a marketing and promotional element to increase the attractiveness of the destination or as a possible threat to the traditional tourism paradigm. Therefore, with these aspects, virtual reality technology has started to be discussed frequently by tourism circles both in the literature and in practice (Dilek, 2020, pp. 2).

2. Methodology

This study was developed in the form of a literary study and studied the work done in the field of tourism on virtual reality. The previous domestic and foreign resources have been analyzed and the source has been scanned and a case assessment has been conducted. The literature review has identified the opportunities and threats that such technology has created for the tourism industry. Data collection is called a literature review by reviewing existing resources and documents. The literature review helps to understand and understand the research problem and to fit the research into a historical perspective (Karasar, 2005). In the study, the examples used in the field of tourism application were also examined and evaluated.

The study aims to determine from which direction virtual reality technology is handled in the tourism literature within the scope of the theoretical framework. Theoretical study guides the researcher in examining the researched subject from different dimensions, from literature review to interpretation and discussion of the findings (Adom, Hussein, & Agyem; 2018, pp. 438). In line with the purpose of the study, answers to the following research questions were sought:

1. Is virtual reality technology an opportunity for tourism?

2. What threats await the tourism industry with virtual reality technology?

3. Findings

The data obtained through a comprehensive literature review has determined that virtual reality technology has many benefits to the tourism industry, as well as some threats.

3.1. Opportunities

In light of the sources in the tourism literature, the opportunities created for the tourism sector can be summarized as follows:

Accessibility: With virtual reality technology, tourists can not find transportation opportunities or dangerous, expensive, and so on. You can visit destinations virtually. Thanks to this technology, tourists can visit places that are risky, expensive, and forbidden to enter, and that are protected areas as if they were real. Thus, this technology offers tourists a risk-free travel experience. At the same time, potential tourists will be able to visit the destinations and tourist places they want to go with the virtual reality application, without leaving their homes, and select the hotels and businesses in the region they will go to by seeing them in 3D. In addition, this technology offers disabled individuals the opportunity to visit destinations they want to travel. Thanks to this technology, people with disabilities can also travel wherever they want as if they were real. In addition, virtual reality technology guides tourists in foreign environments, helps tourists find directions, and provides navigation services. It offers services that can be very useful especially for tourists visiting a new destination (Chiao et al. 2018; Demirezen 2019; Guttentag, 2010).

Contribution to Marketing and Promotion: With the use of virtual reality as a promotional tool, the person will be able to feel like he is on vacation and will be able to decide exactly where he wants to go for a vacation as a result of his experience. Thanks to virtual reality applications, people can see places that they would not normally see because they do not have the chance to go or have ample time to spare (Derman, 2012, pp. 15-16). Making all kinds of marketing and reservations in tourism is one of the advantages of tourism in our world where the internet is widely used. Visiting the hotels they want to go to with the virtual reality application without leaving their homes, and seeing their rooms in 3D beforehand, will cause a more positive image for that hotel in the eyes of people compared to other hotels (Arat & Baltacıoğlu, 2016, pp.110).

It is noteworthy that virtual reality technologies, which are a tool of digital marketing, are used as a marketing strategy in the tourism industry by many sectors from accommodation to travel, from transportation to food and beverage, and by destinations as a support for cultural tourism (Avcı, 2021, pp. 145). The experimental nature of virtual reality makes it the most suitable tool for providing rich data to potential tourists seeking destination information. Many hotels use virtual reality technology on their websites and offer tourists the opportunity to tour the destination and the hotel virtually.

Wikitude World Browser, Yelp Monocle, Tagwhat, Crumbs, etc. for destination marketing in tourism. applications are used. With these applications, the tourist can see the attractions, objects, and places in the destination virtually with augmented reality technology. Virtual reality technology provides tourists with comprehensive information about the product or service to be purchased and offers the opportunity to try the relevant product or service virtually. With this technology, we can find a destination we want to go

to virtually and the business, etc. in that destination. We can visit the places before we go, see the attractions virtually, tour the hotel and the rooms, and see the food served in the restaurants, the preparation of the meals, the ingredients, and the way they are made. Thanks to this technology, destinations, tourist places, hotels, and other businesses can promote and advertise well and provide comprehensive information to tourists (Demirezen 2019; Guttentag, 2010; Yovcheva et al. 2012).

Ease of access to information: Virtual reality technology is used in touristic places, destinations, businesses, etc. It provides the necessary information to people anytime and anywhere in places. In particular, it can provide information about the destination to a tourist going to a new destination. It can provide information about places such as historical, cultural, and architectural places, restaurants, museums, tourism establishments, and entertainment facilities in the destination, and can provide direction and navigation services to tourists. All kinds of information that tourists may need, such as language, religion, nationality, gender, age, etc. can be offered by adapting it according to personal characteristics such as

Ease of decision making: Tourism applications created with virtual reality technology are seen as an important tool for potential tourists to obtain all the information about a planned trip in advance and accordingly take a more effective travel decision (Arat & Baltacıoğlu, 2016, pp. 105). Before deciding on the destination they will travel to, tourists can experience the touristic regions they want to see thanks to virtual reality technology, so it will be more enjoyable and easier for them to decide on a trip. In addition, the time to be spent while making this choice will be saved.

Supports sustainability and provides a competitive advantage: Virtual reality technology is the location of historical, cultural, and architecturally valuable objects, destinations, etc. It digitizes important assets and provides a three-dimensional view. Thus, these valuable assets can be visited virtually as if they were real, and they are prevented from being destroyed by tourists. Many historical objects and cultural heritage sites in the world have been digitized in 3D. Thus, the destruction of valuable historical monuments and destinations by tourists is prevented (Guttentag, 2010, pp. 643). In addition, taking advantage of the aforementioned reality technologies is considered an important strategy in touristic product marketing at the pre-travel stage where the travel plan is made and the purchase decision is made. Because the tourist product is a product that cannot be experienced before purchasing, it is possible to provide the consumer with an idea about the future experience through virtual reality technologies. In this way, an important competitive advantage potential occurs in the pre-purchase phase, where the attitude towards the touristic product or destination is mostly shaped (Neuhofer et al. 2012, pp. 41). At the same time, this technology, which contributes to sustainability, creates a positive image in the memory of society. As a result, the business provides a competitive advantage against other businesses by attracting more tourists with this technology.

Helps in repeat visits and recommendations: A destination, business, etc. with virtual reality technology. Places create a positive image in the minds of tourists as they please tourists by giving them different experiences. In this way, tourists both recommend places with this technology to people they know and visit those places again. At the same time, virtual reality technology promotes sustainability, as well as for environmentally conscious tourists. Thus, tourists prefer the same business to experience this innovative technology again and also recommend it to people they know.

3.2. Threats

Depending on the research questions of the study, the threats to the tourism sector are summarized as follows:

Moving away from classical tourism: Tourism activities that can be experienced with current virtual reality technologies require less cost than a real holiday or travel expenditure, and it is frequently discussed that they cannot provide the opportunities that a real tourism experience will offer (mutual interaction, buying souvenirs, etc.). (Cheong, 1995, pp. 421). It is considered that these technologies are still costly for the consumer and although they provide a simulation of real experiences, they cannot be a substitute for a real vacation or travel experience (Musil and Pigel, 1994, pp. 93). Paquet & Viktor (2005) also stated in their study, regarding the risk that virtual reality applications will replace reality, although tourists are sympathetic to this technology, most people would prefer reality to virtuality.

The fact that tourist-local interaction, which is one of the main components of the tourism phenomenon, cannot exist in applications produced with virtual reality technology, creates a lack of cultural and social interaction, which constitutes a significant negative for the sector (Cheong, 1995, pp. 421). If the travel experience with virtual reality technology is perceived and accepted as real travel, how the current tourism definitions that limit touristic activities with physical movements will change is seen as a threat on behalf of the tourism sector by tourism researchers (Guttentag, 2010, pp. 647).

Even though technological applications arouse admiration at first, it is thought that virtual reality applications negatively affect the communication of tourists and can bring individuality to the fore. Similarly, there are negative opinions that digital technologies such as virtual reality may have negative effects on the socialization process. (Sharples et al. 2008; Eser et al. 2019).

Decrease in the number of tourists and tourism revenues: With the use of virtual reality technologies in the tourism sector, the economic impact of real tourism in a country may decrease, the negative effects it may create on employment in tourism and related sectors, tax problems and concerns about how to organize tourism policies and planning are expected threats to the economic value of the tourism sector. (Cheong, 1995; Guttentag, 2010). Another disadvantage created by virtual reality technologies is the virtual addiction

experienced by individuals who spend more time in the virtual environment than they should, become increasingly addicted, and eventually have difficulty in separating the real world from the virtual world (Suler, 2004, pp. 361). These people constitute a situation contrary to the definition of "traveling from one's place of residence to another place", which is at the core of tourism. In addition, with the emergence of more realistic virtual reality simulations over time, people may no longer find it necessary to visit a particular destination and may not physically perform the tourism movement. In this case, it is inevitable that there will be a decrease in the number of tourists, and the natural result of this, is tourism revenues.

Employment problem: Technological developments and changes can have negative as well as positive reflections on many branches of the tourism industry (hotel workers, tourist guides, restaurant workers) in the performance of their profession (Eser et al. 2019, pp. 467). With the spread of virtual reality technology, tourism businesses may need fewer personel and thus avoid personnel costs. For example, the presence of both written and audio narrations in museums and sites, advanced GPS-supported map applications, and the ability to offer tourists an alternative to visiting these areas without a guide even if they are visiting the destination for the first time, eliminate the need for a tourist guide (Dinçer & Çakmak 2015, pp. 182). It is thought that the establishment of unmanned services in hotels by using artificial intelligence technology may lead to an increase in the employment problem in the future. Apart from these, as a result of the need for educated manpower who can use technology applications, there is a possibility that there will be no need for workers to work in sub-branches, and technological discrimination will be applied.

Dissatisfaction: Due to the fact that virtual reality applications are not a complete substitute for reality, some dissatisfaction may arise due to the fact that the places they visit and see with virtual tours do not reflect reality sufficiently, cannot fully provide the feeling of being there, and cannot experience that atmosphere. However, a technology-oriented service delivery that is free of senses and emotions can negatively affect the image of the destination in the mind of the tourist and the uniqueness and memorability of the tourists' experience; It should not be forgotten that tourism events and service are meaningful with people (Eser et al. 2019, pp. 478)

Inequality of competition: With the advancing technology, the inability of other tourism enterprises to keep up with the times, apart from the tourism enterprises that adapt, use and pioneer this technology to their enterprises, will cause competition inequality. In the absence of sufficient financing for the acquisition of new technologies by small and medium-sized enterprises, it is likely to disrupt competition and monopolization will occur more.

Conclusion

The concept of virtual reality technologies, which has been used in many other fields, is advancing towards a concept that can be used in competitive sector market enterprises where human relationships are intense (Yüksek et al. 2020, pp. 19). This technology, which has started to be used in all areas of life with rapid development today, has gained importance in the field of tourism and has been discussed in both national and international literature for a while. In recent years, it has started to be discussed in the context of the effects of information technologies on the tourism sector in the tourism literature. So much so that the relationship of virtual reality applications, which is one of the information technologies, with tourism has started to take its place in the tourism literature.

The ever-developing multimedia and mobile technologies, the rapidly changing world of technology and mass media due to globalization, and the increasing number of mobile users gradually trigger the technological rationalization of society and affect the tourism sector and touristic consumption structure to a large extent, as in all other areas. (Kourtesopoulou et al. 2018, pp.174). With the technological developments, the perception and attitude towards the tourist product have also changed, and businesses that have to keep up with the said change have started to benefit from digital marketing and turn digital marketing into a strategy in all processes from product development to reach the final consumer. Virtual reality technologies are believed to have the potential to transform the tourism industry. Because the tourist product cannot be stored, stocked, and experienced beforehand. Simulations created with technologies such as virtual reality can provide potential consumers with insights about the image of the destination they want to visit and touristic products, by helping to overcome these handicaps peculiar to the nature of the tourist product. This means gaining a significant competitive advantage in the pre-purchase phase (Avcı, 2021, pp 148).

In today's digital society where tourism applications based on tourism and technology cooperation are increasing rapidly, virtual reality technology offers many advantages in terms of the development of the tourism sector. If these advantages are implemented with the right projects, it will be inevitable that virtual reality technology will become an indispensable tool for the tourism sector. Therefore, especially for developing countries, turning to virtual reality technology and touristic applications in this context indicates that they can increase their share of tourism with innovative solutions (Dilek, 2020, pp.58).

In this study, the situation of virtual reality technology in the field of tourism has been tried to be determined, besides the opportunities offered by the technology in question, what negative situations await the sector and what threats it may be affected by are emphasized. Although technological developments and applications bring advantages to the field of tourism, as in every field, every development also has some disadvantages.

In this direction, depending on the research questions of the study, a situation assessment was made by scanning a wide range of literature from domestic and foreign sources. In this context, it has been found that the virtual reality technology used in the tourism sector serves different uses for different purposes. According to the findings, it has been seen that virtual reality applications have become used in the presentation and marketing of tourism services as a product, but they are used only in certain areas. However, considering the increasing number of studies on the subject, it is thought that this technology can be applied in a more integrated way with the service offered specifically for tourism businesses or destinations or can be presented as an experience in the future. Because scientific studies not only bring the applications they have done in the field of marketing to the literature but also guide the practitioners and present information with concrete data. In this way, practitioners can determine their marketing routes accordingly in their future plans. Therefore, scientific studies carried out together with technological developments can provide a different momentum to tourism with forward-looking technology-based sales strategies of enterprises or tourism destinations (Eryilmaz & Aydın, 2021, pp. 20). Accordingly, it is thought that businesses operating in the tourism sector should offer virtual reality applications as a service to tourists with different experiences. This situation will increase the competition as well as affect the position and profit share of tourism enterprises in the market in a positive way. Reality technologies can be used or applied in an integrated manner in various departments instead of being handled by a single department in a business or field.

Virtual reality applications offer significant opportunities in terms of marketing effectiveness, economic convenience for tourists, ease of promotion, ease of decision-making, new experiences, place utility, increase in tourism motivation, sustainability, and ease of access. In addition, it creates threats in terms of a decrease in tourism revenues, inability of businesses to keep up with the times, employment problems, lack of tourist experience, security gap, shrinkage of demand, legal infrastructure, and satisfaction problems. On the other hand, the results of the study make it necessary to make some suggestions for tourism enterprises. Especially in terms of adapting to technological innovations, the fact that chain hotels attach importance to the use of virtual reality applications and provide services will reveal some competitive advantages. In this context, it is recommended that tourism enterprises should not stay away from today's technological developments and applications and closely follow the developments. It should not be ignored that this technology, called virtual reality, is in great demand day by day and has begun to affect many sectors.

At the end of the study, it can be said that tourists are not yet fully integrated into virtual reality technology and applications, and although it provides benefits and convenience in many areas, classical tourism will be preferred for a while over the said technology applications. Because, although this technology offers a simulation of real experiences, there is a prevailing view that it cannot be a substitute for a real vacation or

travel experience. When scientific studies in the field of tourism are examined (Cheong, 1995; Dilek, 2020; Eser et al. 2019; Guttentag, 2010; Musil & Pigel, 1994; Paquet & Viktor, 2005; Sharples, 2008) virtual reality technologies will fundamentally affect the tourism sector due to the negative effects it contains as well as the opportunities it contains. It is clear that he is open to threats.

The results of the study also provide theoretical and practical contributions. Creating awareness about the concept of virtual reality for all stakeholders in the tourism sector is important in terms of being prepared for the technologies of the future and contributing to other researchers in tourism literature. In addition, researchers who want to work on virtual reality in the future can test the applicability of virtual reality applications in the field of tourism together with the stakeholders in the tourism and reveal the opportunities and threats in a more concrete way.

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