Review Article

Artificial Intelligence And Telemedicine Applications In Health Tourism Marketing

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Abstract

Technological developments accelerated with the Industrial Revolution have started to be used effectively in health tourism marketing, and its applicability in health tourism has increased competition between countries and even continents. Technological advances in artificial intelligence and telemedicine have reduced the time and economic costs of travel within the scope of health tourism while increasing the efficiency of health tourism and the number of patients benefiting from health services every day. Artificial intelligence and telemedicine accelerate diagnosis, detection and treatment services, and their use is increasing as an alternative to uninterrupted access to healthcare providers in problems caused by global pandemics such as Covid 19. This study employs qualitative analysis and aims to evaluate artificial intelligence and telemedicine applications in terms of health tourism marketing.

Keywords: Health tourism, artificial ıntelligence, marketing, digital marketing, telemedicine.

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Derleme Makalesi

Sağlık Turizm Pazarlamasında Yapay Zekâ ve Teletıp Uygulamaları

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Öz

Sanayi devrimi ile hızlanan teknolojik gelişmeler sağlık turizmi pazarlanmasında etkin olarak kullanılmaya başlanmış, sağlık turizminde uygulanabilirliği ülkeler arası hatta kıtalar arası rekabeti arttırmıştır. Yapay zeka ve tele tıptayaşanan teknolojik ilerlemeler sağlık turizmi kapsamında yapılan seyahatleri zamansal ve ekonomik olarak maliyeti düşürürken sağlık turizminde her geçen gün verimliliği ve sağlık hizmetlerinden faydalanan hasta sayısını arttırmaktadır. Yapay zeka ve tele tıp; teşhis, tanı ve tedavi hizmetlerini hızlandırmakta, Covid 19 gibi küresel çaptaki pandemiden kaynaklı sağlık hizmeti sunucularına kesintisiz ulaşmada alternatif olması nedeniyle kullanımı da artmaktadır. Bu çalışma da nitel analiz uygulanmakta ve yapay zeka ile tele tıp uygulamalarını sağlık turizmi pazarlaması açışından değerlendirmek amaçlanmaktadır.

Anahtar Kelimeler: Sağlık turizmi, yapay zeka, pazarlama, dijital pazarlama, teletıp.

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1. Introduction

Nowadays, developing technology brings with it many advantages. Technology is very important in terms of time, economy and easy accessibility of information, especially in activities such as health tourism that provide global services. The ability to mimic human intelligence leads us to position AI applications completely differently. In a sensitive issue such as health, targeted results in different areas can be achieved more easily with artificial intelligence, especially by analyzing the benefits. For example, going to a different region, perhaps unfamiliar, can cause significant anxiety in human nature, while artificial intelligence can create predictions about the relevant place. The need for trust, in today's conditions, actually tends to seek answers to every question that arises in the human mind on the technology sub-base.

Consumer demands and needs have adapted and reshaped to today's digital world, which has transformed the existing market into a single global market (Aykın, 2021a). Scientists conducting research on artificial intelligence have listed what artificial intelligence can do in the coming years as follows: In 2024, they predicted that they will be able to translate between languages, in 2026 they will be able to solve questions at the level of secondary education, in 2031 they will be able to work in product sales, in 2049 they will be able to write books at the level of bestsellers (top sellers), and in 2053 they will be able to perform human activities such as performing surgical operations in operating rooms (Munandar & Irwansyah, 2020).

Technology, which is open to be used in different fields, allows to create a versatile behavior model in the field of health tourism. In particular, the combination of artificial intelligence with telemedicine conveys relevant information to people without experiencing the relevant experience in the field of health, which is one of the main components of health tourism. The tourism element, on the other hand, is supported by artificial intelligence product infrastructures and creates a prediction of the end consumer evaluation. The aim here is to anticipate demands and needs in advance and to guarantee a high level of satisfaction before the customer arrives. In this way, businesses gain a competitive advantage as well as success in creating added value for their country.

2. Health Tourism In The World

Health tourism has gained a different dimension as a result of the development of technology and mass communication systems. Health tourists can access health institutions that offer more economical, less waiting time and quality services within the scope of health tourism outside the places where they live. Health tourists have tended to do more research with the increase in their knowledge about the service content they will receive by utilizing technology. For this reason, countries' orientation towards developing themselves in the field of health tourism can be characterized as compulsory rather than optional. The change in the perspective of countries towards health tourism has led to the development of health tourism and made it an economic resource. By investing in technology, countries provide patients with information on what quality health care should look like. The fact that inter-country transportation has become more affordable has a direct impact on today's customer choices. Cost advantage in treatments can be considered as a strategic benefit, especially for developing countries. Thanks to waiting times and technological advances, health tourism causes a rapid shift in patient orientation from developed countries to different countries (Aydın, 2012).

Although health tourism has come to the forefront with its price advantage thanks to facilitated information, it is actually fed by many factors. Health tourism can also be defined as a complex market that is multidimensional and difficult to predict growth (Pirhan & Eter, 2022). Today, countries continue their efforts to minimize the negative impact of mass tourism by utilizing alternative tourism elements in their technology infrastructure (Aykın, 2021b). The aim is to maximize the benefits and minimize the associated hazards. The experience gained in the technology infrastructure allows policies to be determined both for businesses and for the country. At the same time, it forms the basis for purchasing behavior by creating a sense of trust by providing preliminary information about customer satisfaction before the customer takes a step.

3. Current Perspectives And Artificial Intelligence

Though artificial intelligence is essentially a communication technology, it is an advanced system that supports improvement and empowerment in operational efficiency and functionality, adapting all new complex applications to their implementation in both humanoid and non-humanoid ways (Kavut, 2022). Despite its extremely basic use, it is frequently mentioned for creating power within businesses through development, problem solving and learning. The constantly developing communication technologies have become an indispensable part of human life due to the great convenience it creates in maintaining vital activities. 2022 evaluations based on Turkey's data show that the proportion of the population shifting completely to digital platforms is approximately 80.8% and sheds light on the fact that the search for a solution for any need that may arise in any field, such as health consumer guidance, will be met from these platforms (Arık, 2023).

Artificial intelligence benefits from experience-based historical data in all of its future predictions. This application, shaping intelligence in two directions, creates a decision mechanism by taking into account both cognitive and emotional processes. Artificial intelligence applications do not create consciousness on their own, but only structures the process of interaction with others through the ability to imitate (Başer & Olcay, 2022). The impact of Artificial Intelligence is supported especially in monitoring systems with smart analysis, which performs the primary monitoring action based on information-based functionality and flexibility, taking into account the security needs of the parties and protecting privacy. The fact that the relationship between artificial intelligence and marketing is generally associated with surveillance technology attracts the attention of individuals, societies and even states. The study on 176 country data reveals that the relevant inventory can only be created on the basis of artificial intelligence in the creation of supply- demand balance (Akyılmaz, 2021). The international monitoring element creates a tremendous opportunity to reduce threats and take advantage of opportunities by creating supervisory mechanisms.

Artificial intelligence, which has started to be actively used in almost every field of science, continues to develop over the years and will carry humanity beyond time with a perspective that challenges human intelligence in the near future. Offering efficiency and profitable advantages to companies, artificial intelligence keeps the consumer focus alive. On the other hand, artificial intelligence-supported algorithms make the consumer lose the freedom of choice with the "filter bubble effect" and constantly be directed to similar products through digital manipulation (Karaman, 2021). This situation generates the infrastructure for brand loyalty.

4. The Relationship Between Marketing And Artificial Intelligence

The continuous global transformation has made the effect of artificial intelligence mandatory in various professions for global business lines (Aksakal & Ülgen, 2021). In this context, Digital Marketing Expertise and related strategies stand out as one of the prominent professions under the influence of artificial intelligence.

Increasing competitive conditions and the complexity of competition in the international dimension lead businesses to new pursuits. The struggle for survival emerges as the most effective way for businesses to adopt new technologies and survive in the modern market. Artificial intelligence is used as a solution partner in the field of marketing, and it offers remarkable results such as solving market problems, setting strategic frameworks and predicting the future (Alkaddour, 2022). This situation emphasizes the importance of accessibility and provides an instant opportunity to interpret the diversity in marketing potential.

The solutions of artificial intelligence cause extraordinary developments especially in the field of marketing. Artificial intelligence, which offers radical changes in the way of working with the applications it contains, offers businesses the opportunity to move their potential forward. This situation brings along strong positions in the relevant market, such as competitive advantage or market leadership. At a global level, the consumer-first approach makes artificial intelligence critical in providing data that can guide the route of business. The fourth industrial revolution is artificial intelligence (Gür, 2022). Tactically, it is possible to interpret the basic component of artificial intelligence as process analysis.

5. Reflections Of Artificial Intelligence On Health Tourism Marketing

Artificial intelligence marketing, which provides process support in the decision–making mechanism in health tourism, contributes to the demand -supply balance on a wide scale with interaction-related privatization, sustainable communication, and renewable resource presentation. The contributions developed for health tourism marketing with artificial intelligence applications can be classified differently. Highlights: simulation, diagnosis, diagnosis, effective information about the treatment process, 3-dimensional imaging and training on the elements that need to be done before and after the service (Deniz, Doğan & Köse, 2023).

The increase in the use of new generation products in the markets and its infrastructure, which is constantly supported by new technologies, offers us a whole new angle of flow, where the contact with artificial intelligence is increasing (Çelebi, Aksoy, Alan & Kabadayı, 2023). The convenience created by artificial intelligence in the acquisition of information has provided benefits both in terms of quality and managerial and at the same time redound cost advantage to enterprises (Güneç, Gökyay, Kaya & Aydın, 2022). The work of machines and robots with humans is supported by effective applications in many more areas. Artificial intelligence, which uses business models and connected communication activities for the functioning of health tourism on marketing platform and presents the brand through interactive digital reflections, offers a hedonic experience limited to the imagination (Durukal& Armağan, 2022).

The fact that data-based algorithms model consumer insights using artificial intelligence has obliges businesses to use “real-time marketing technologies” (Yıldırım & Yıldırım,2022). Every technology that has become a part of our life in daily use acts as a sensor and has facilitated adaptation. Today, technology elements that are adapted to

every aspect of our lives are gaining a quality that directly directs human life and decisions with the spread of their areas of use.

In addition to holistic utilisation, there are also applications that will bring direct benefit to the whole by fragmenting. Especially the tourism sector components stand out as the fastest implementing part in the field. For the same high quality service 24/7; Hilton hotels first robot consultant "Connie", FCM Travel Asia travel chat robot, Henn na Hotel Maihama Tokyo Bay Booking.com promotion page can be given as examples (Ercan, 2020). These uses create significant differences in consumer preferences by highlighting the relevant businesses to a significant extent.

6. Artificial Intelligence Applications That Can Be Used In Health Tourism Marketing

Artificial intelligence offers us a brand new universe and enables us to frame the options with our imagination. People's tendency towards digital tools stands out with the opportunities provided by artificial intelligence such as the expansion of the usage area and access to big data sources (Yıldız, 2021). New trends in health tourism marketing always attract attention and the use of technology becomes the main element of competition (Aykın, 2020). Easy access becomes the biggest advantage for the consumer and ease of use directly affects preferences (Aydoğmuş & Aykın, 2020). All technological developments that are mobilized attract the consumer more. Efficiency metrics have changed, and interaction is becoming one of the most important elements in marketing. Big data source offers businesses the opportunity to renew themselves and differentiate themselves from others, depending on the technology activity listed below.

6.1. Chatbot

This application, which structures communication without time limits, plays a role in customer satisfaction and brand continuity communication (Kuruca, Üstüner & Şimşek, 2022). The benefit that the parties gain from their communication serves as a data bank, giving businesses a perspective. Businesses contribute to their road maps with this data bank, which offers great advantages to marketing professionals thanks to digital transformation. It creates mobility and insights in market research, advertising, sales segmentation, and social media applications. Conversation-based artificial intelligence is redefining the customer experience in value creation. With the power of using data in the field of marketing, it is expected that approximately 67% of customer communication will be provided by chatbots and smart assistants by 2030 (Kamran, 2021). In this process called the "Humanized Digitalization Age" based on artificial intelligence, the ChatGPT (Chatbot Generative Pre-trained Transformer) application stands out and is seen to direct social interactions (Koçyiğit & Darı, 2023). The efforts of businesses to maintain their communication processes and working lives on an innovative platform can also be considered as strategies for businesses to stay competitive. This application, which structures communication without time limits, plays a role in customer satisfaction and brand continuity communication (Kuruca, Üstüner & Şimşek, 2022).

6.2. Metaverse

The word metaverse is a combination of the Greek words "meta", meaning beyond, and the English word "universe", meaning "beyond the universe" or "the other universe" (Lee et al., 2021). (2015) defined the concept of Metaverse as a new life in the virtual world. Looking at the history of the Metaverse, it was mentioned by Neal Stephenson in 1992 in his novel Snow Crash. In this novel, life takes place in a parallel universe with avatars

owned by people in the virtual world, just like in the world (Anonymous, 2023b). Studies have been carried out in areas such as education, health, entertainment, art and sports with the other universe infrastructure. There are companies such as DeHealth and. It is an inevitable reality that, in parallel with technological developments in the field of Metaverse and health, the initiatives of health providers to provide health services in the Metaverse environment will increase. Park and Kim (2022) classified the components required to realize Metaverse under three main headings: hardware, software and content. According to Yılmaz et al. (2022), the technological topics that make up the Metaverse are listed as follows.

- Extended reality (XR) is the combination of the existing physical environment and the virtual environment. It is divided into three parts (Logeswaran et al., 2021).
- Virtual Reality (VR) provides a virtual reality to the user with the help of certain equipment. Renewal and growth of equipment with technological developments (Lin et al., 2019).
- Augmented Reality (AR) allows virtual objects to be felt as if they are in a physical environment by integrating virtual objects into the physical world with the help of devices. For example, in the real world, you can see a second glass by creating a virtual image next to the glass on the table with the help of devices (Yılmaz, F., et al., 2022). The biggest function of AR is that this glass created with the help of the device has realistic features, images and durability. (Rebbani et al., 2021).
- Mixed reality (MR) creates a new environment by combining the current world and the virtual world with the help of devices. These created environments are an environment where physical and virtual reality coexist (Yagol et al., 2018).
- Artificial intelligence (AI) is the use of devices for specific purposes by interpreting data thanks to developed software (Kaplan and Haenlein, 2019).

Metaverse has the ability to provide new services in parallel with technological developments in healthcare services. In health services, these technologies are used in many areas such as education, research, patient care, rehabilitation services and clinical applications (Yılmaz, F., et al., 2022). Yılmaz et al. (2022) The usage areas of Metaverse in the health sector are exemplified.

6.3. Extended Reality (XR) Applications in Healthcare

- XR applications have become alternative applications by playing a role in reducing the use of medical drugs in patients' chronic and acute pain (Trost et al., 2021).
- Wii games that can be played through VR (glasses, headphones, gloves, etc.), in the exercises of Parkinson's patients who are dependent on physical therapy rehabilitation services, in burn treatment by distracting the patients by creating a virtual environment, in using them as painkillers so that the patients feel less pain, in the education of patients and phobias. It is used in therapies (Yılmaz, F., et al., 2022).
- With augmented reality (AR) technology, AccuVein can projectively reflect vascular access in real time and help patients open vascular access in a single attempt (AccuVein, n.d.).
- Students studying at medical faculties with extended reality (XR) have begun to benefit from the practical training provided with XR applications by simulating AR

technologies so that students can experience more realistically, and the treatments applied to patients (Thomason, 2021a).

Veyond, a Metaverse company, has provided educational opportunities by making high-quality human anatomy views accessible to surgeons, specialists, and medical students with the help of artificial intelligence and XR technology (VeyondMetaverse, n.d.). He used VR and AR technologies in his anatomy course at Seoul National University, the capital of South Korea (Jeon, 2021).In 2021, the first online surgical intervention was performed in Turkey with the technique called "Thuflep Omega" using smart glasses and 5G technology in prostate surgery (Gençoğlu, 2021). Since Metaverse will provide healthcare services in the virtual world, its great advantage is that it can ensure the confidentiality of the patient's identity information (Yılmaz, F., et al., 2022). Psychiatric diseases such as bipolar disorder and Schizophrenia are hesitant to seek medical help because they fear the pressure of being ostracized in society (Çam and Çuhadar, 2011). Health tourism's relationship with the metaverse will inevitably increase in its fields of activity along with technological developments. Health tourists who plan to physically travel to countries for the treatment of individuals' patients will be able to benefit from the virtual world by visiting the countries and organizations they plan to visit with their avatars in the virtual universe, without going to those countries and organizations about the treatments. (Yılmaz, F., et al., 2022). These visits, thanks to avatars, will enable health tourists to save time and benefit from the right treatment at the most affordable cost. In the surgical operations to be performed regarding the diseases of health tourists, such as rhinoplasty operation, aesthetics or hair transplantation, planning of surgical intervention procedures, the results of which can be seen without any surgical intervention, with the help of VR glasses and AR devices, as a three-dimensional image instead of devices that provide two-dimensional images, allowing the doctor to see the patient in 360 degrees. It is thought that planning the augmented reality image (the closest image of the real world) with the patient before surgery and seeing the results of the surgery will positively increase patient satisfaction and the patient-doctor trust relationship. It is thought that the health tourist who returns to his country after the surgical intervention will be able to check the health problems that will arise later with XR wearable devices, in a timely and economically faster way, in the Metaverse universe, as if he were being examined, thanks to the three-dimensional image of the patient.

7. Telemedicine

It enables individuals to communicate with each other through telecommunication or digital tools and contributes to individual and community health by diagnosing and treating, monitoring and caring, intervening and reminding, and advising the patient through this information system and telecommunication technology (Anonymous, 2023).

The definition of telehealth made by the World Health Organization (WHO: World Health Organisation); "Health services where distance is a critical factor, by all health professionals using information and communication technologies, diagnosis, treatment and prevention of diseases and injuries, valid information exchange for research and evaluation, and continuous education of health service providers to improve the health of individuals and their communities" (Kaplanoğlu 2020).

Elimination or shortening of the distance barrier, reducing costs and increasing quality are beneficial in this regard (Bashshur, 1995). According to the decision taken by the sub-committees of the European Union, it is the provision of health services by establishing communication between doctors and patients using technological facilities. According to

the Turkish Ministry of Health, faster access to radiological data of patients is provided through consultation between physicians.

According to 2013 data, 350,000 patients benefited from telemedicine tools. In 2018, this rate reached 7 million (Anonymous, 2023). In many countries in the world, telemedicine service is applied to a certain extent and technological infrastructure studies and legal regulations are holding.

It is known that the history of telemedicine, which provides communication between physician and physician or between patient and physician with the help of technological tools, dates back to old times. Telemedicine has developed over time with the development of information communication technologies. With the increase in the use of the Internet in the provision of many health services, the use of telemedicine has also become widespread and with this, it has been ensured that this information reaches more people safely. Many states contribute to the studies in this field (Bayhan, 2001).

Telemedicine, according to experts, will reduce the crowdedness of the hospital. This application provides great advantages especially for patients who have difficulty in getting services of health and live in regions where transportation cannot be provided. It has been possible to continuously monitor individuals with chronic diseases remotely with telemedicine applications. It has contributed to physicians making remote drug-dose adjustment easier and to monitoring blood pressure, sugar and pulse measurements (Tekin, 2020). With this application, it is ensured that the patient can reach the physicians more easily. It also facilitated the work of healthcare personnel and patients using this application.

Areas where telemedicine application is used: Telemedicine technologies consist of real-time technology, remote control methods, store and send technologies.

- Tele-radiology is the ability of the physician to access, report and evaluate the images of radiological examinations at any time.
- Tele-pathology is the application of medical diagnosis by transferring pathological data to the monitor by tele-application method.
- Tele-psychiatry is the establishment of audio and video communication between the psychologist or psychiatrist and individuals over a long distance.
- Tele-surgery; It includes distance assistance in surgeries. Imaging in robotic surgery is utilized to make quick decisions.
- Tele-electrocardiography; It contains all the data about the heart stored in the health system. It can be re-examined when needed.
- Tele-dermatology; It is the continuation of the patient's treatment with the help of photography, video and teleconference methods by getting the clinical information of patients who have difficulty in getting health services.
- Tele home care: It is the evaluation of the vital findings of the patient to the physicians and taking the necessary measures by accessing the data of patients with chronic diseases and bed- dependent patients via computer or telephone (Hoşman, 2018).

When using virtual technologies, some problems may be encountered regarding the hardware, cost, and compatibility of the devices. With telemedicine applications, observations of some patients can be made remotely to reduce bed occupancy rates. There

are various expectations from these systems. For example, the statistics to be obtained from the recorded data enable the selection of the treatment to be applied in the following process. Any complications that may occur with these recorded statistics can be detected in advance. When it is considered in terms of patient and physician, it will serve more individuals with less personnel; by increasing the quality of work, time will be saved (Işık, & Güler, 2010).

7.1. Development and Historical Dimension of Telemedicine

It allows the physician to reach the patient in the fastest and cheapest way by saving time without the obstacle of distance. With the ability to access the data collected in an electronic environment at any time, it is seen that the follow-up of patients with chronic diseases can be done remotely, providing an advantage in eliminating unnecessary applications.

The lack of adequate technological infrastructure, inadequate legal, legislative and ethical regulations are seen as disadvantages in this field.

When it is necessary to take a brief look at the historical development of telemedicine, it is possible to say that the speed and structuring of the process have gained momentum in the recent period. Although it is thought that the practices are based on antiquity, it is thought that these practices are very primitive and took place under 500 BC conditions (Doğramacı, 2020). The process experienced here is completely human-centered and develops and information is shared through messengers. The first application that forms the basis of today is defined as the use of telephone lines and, accordingly, the transmission of ECG messages towards the end of the 1800s (Alkan & Mirici, 2021). Clinically, applications in the field of psychiatry are considered to be the beginning, and in the following process, hospital and ship radio interaction in the 1920s on the axis of 20th century developments, and at the end of the 20th century, space studies, that is, the examination of astronaut findings thanks to the satellite (Çabuk, 2023). When all this process is examined, it is revealed that information technologies are used at the highest level for telemedicine. In terms of content, it gains a different dimension by integrating many different applications for the process that started based on communication.

When examples of important retrospective developments are given, the remote evaluations of passengers and employees between Massachusetts General Hospital and Logan International Airport in 1960 as modern telemedicine and telepsychiatry evaluations at the University of Nebraska are accepted as the first examples (Kaynar, 2023). As another important example in the following process; described in an article in the Lancet medical journal in 1879; the contribution to modern telemedicine in the 1990s is examined by making the correct diagnosis of a child patient with a very serious condition at midnight, focusing on the 911 emergency hotline, which was established in the US system in 1968 but could not be used, and activating its use (Cengiz, 2023).

In telemedicine, which gained a different perspective with the developments in the 1990s and countries started to allocate budgets for the first time, the foundations of today's applications have started to be laid and although many sectors contribute, they cannot reach the desired levels due to reservations such as confidentiality, license or guarantee (Grigsby, 1998).Although the desired difference in the quality of life of individuals cannot be created, telemedicine, which has started to be used in different fields, has started to be used more within the scope of budgets allocated for diabetes, COPD, asthma or skin diseases through visual messages (Arif, 2021). In 1985, telemedicine, which was supported especially in the USA, was examined at the G7 summit within the process and

a VPN-based Global Emergency Tele- medicine System covering 7 different countries was established (Gürgen, 2021). This special virtual network system takes the digital communication system to the next level and meets the highest level of security requirements.

Telemedicine brings multidimensional solutions to health problems in today's conditions and in the light of technological developments (Sungur, 2020). In this context, although the World Health Organisation has clearly revealed that America, Europe and the Western Pacific region are the places that use e-health services the most, the most investment shows great development in South Korea, Brazil, Africa and Scandinavian countries within the scope of different applications (Erbayraktar, 2021). Recent research reveals that telemedicine efficiency for children and adults with specific diseases produces much healthier results than face-to-face interviews (Şimşek, 2016). The reliability of the results depends on the interpretation of the images and the tightening of the correct communication and the development of methods of transfer between the patient and the doctor (Thrall, 1998). The renewal of telemedicine applications by overcoming geographical barriers finds brand-new application areas in developed and developing countries.

Many pilot studies implemented in telemedicine continue to yield effective results in different fields. To give an example in Turkey, pilot studies are carried out in university hospitals in Izmir (Ege), Ankara (Gazi), Diyarbakır (Dicle) and Bolu family health centre in pediatrics, ultrasonography and many other fields (Hoşman, 2018). The rapid increase in investments in telemedicine reveals the necessity to establish a legal infrastructure (Arif, 2021). Today, in 1961 health institutions have started to provide services by integrating telemedicine applications (Doğramacı, 2020). In the 21st century, with the development of technological infrastructures and investments in the last 10 years, the effectiveness of telemedicine is increasing and its use among the public is expanding the follow-up, treatment and follow-up activities in the following process with the clarification of legal and medical ethics concepts (Kaynar, 2023). The relevant process continues with the transfer of even primary healthcare services to the electronic environment against the current demand due to the uncontrolled increase in the population (Önal, & Kaya, 2020).

The legal sanctions of telemedicine are based on Directive 2011/24 by the provisions of the European Union and this situation in Turkey is determined in the general framework of Distance Health Service provision with the regulation dated 10/02/2022 (Çavdar, 2022). The main contract, which is examined within the scope of the distance service contract and determines the physician-patient communication with the parent contract, has the nature of a power of attorney. Telemedicine, which is frequently mentioned within the scope of the health transformation project, creates a new evaluation criterion by placing a low-cost alternative perspective on health service delivery (Oflaz, 2023). Especially during the pandemic period, all countries compulsorily contribute to the development of telemedicine payment and insurance systems and take measures to develop legal standards and relevant legislation (Özdemir, 2023).

8. Conclusion

The rapid development of technology with the industrial revolution and the rapid development of technology, leaving the work done by human beings with body power to machines, increased urbanization. Thanks to technological devices, human beings started to spend more time for themselves and started to pay more attention to their care and

health. Health tourists have started to travel between countries to cure their diseases or to maintain their healthy state. When health tourists choose the countries they will travel to; they have made choices according to the country's technological infrastructure in the field of health and affordable treatment.

The development of technology has led to development in the field of health tourism, as in the fields of production, transportation and industry. Also, it has caused health tourism to become an economic source of income and competition between countries in this regard. This competition has led to very rapid developments in the field of health, and technologies such as metaverse and artificial intelligence have been integrated into the field of health tourism and started to be used. With the use of metaverse and artificial intelligence in the field of health as well as in many other fields, the quality of service received in the field of health has been increased by accelerating the diagnosis, diagnosis and treatment processes of patients. With wearable health devices with artificial intelligence, patients can monitor their health information and share this information with health institutions. In the coming years, as the data received from the devices are processed, more detailed information about the patient can be obtained.

Another application in health where patient follow-up can be done with remote access is telemedicine. During the Covid-19 pandemic, the importance of telemedicine in patient access to healthcare providers was understood again and the studies in the field of telemedicine gained more momentum.

In the future, wearable devices and chip systems are supported by artificial intelligence will enable patients to monitor their instant health status. These devices, with the help of artificial intelligence, will be able to communicate with health institutions in emergencies of the patient impartially and, share information about the patient's health status and request ambulances or doctors if they are needed.

Surveillance technologies based on artificial intelligence are now being used by the state as well as increasing competition, especially in specific sectors. Individuals' need for multiple contacts for sales supports purchasing behaviour, especially for products and services such as health tourism, where people's need for security is felt at a high level. Tele-medicine, on the other hand, comes to the forefront with its informative feature in terms of both remote diagnosis and pricing and process analysis with the benefit it provides strategically. Therefore, if we want to get our share of the pie as a country from health tourism in the global world, we should develop in the field of artificial intelligence and tele-medicine and bring technological investments to the forefront. In the globalizing world, to benefit from the health tourism economy at the maximum level and to develop in this field, we should develop in the field of the metaverse, artificial intelligence and telemedicine, and allocate more budget as a country in technology research and development investments in the field of health.

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