Jomat

Journal of multidisciplinary academic tourism

2022

Volume: 7 Issue: 1

ISSN: 2645-9078

www.jomat.org

www.dergipark.org.tr/tr/pub/jomat

DergiPark AKADEMİK

Jomat

Journal of Multidisciplinary Academic Tourism

Year: *2022*

Volume: *7*

Issue 1

Publisher: ***Yusuf Karakuş***

Indexing and Abstracting ***ULAKBIM TRDIZIN***

CABI

Cabi Leisure, Hospitality & Tourism

Leisure Tourism Database

Agricultural Economics Database

Nutrition and Food Sciences Database

Rural Development Abstracts

Sociology Abstracts

Environmental Impact

SOBİAD

EBSCO

Adress: *Recep Teyyip Erdoğan Üniversitesi, Ardeşen MYO*
Fatih Mahallesi Ardeşen Kampüsü 53400
Ardeşen / RİZE TÜRKİYE

ISSN: *2645-9078*

Aim & Scope

Journal of Multidisciplinary Academic Tourism (JOMAT) is an explicitly international and multidisciplinary peer-reviewed scientific journal founded in 2016. JOMAT aims to publish both empirically and theoretically based articles which advance and foster knowledge of tourism and research that explores one or more of the economic, social, cultural, political, organizational, marketing, management or environmental aspects of the subject. We are also trying to give a new perspective to tourism-related activities. The journal encourages short commentaries and rejoinders and provides a rapid turnaround of submissions. In addition to regular length submissions, the journal also welcomes extended peer-reviewed papers on a single topic that combines detailed literature reviews with substantive empirical research and policy analysis. We also welcome supplementary material in the form of video, audio, photographs and additional supplementary about data, not included in the paper. The journal publishes Main Papers, Book Reviews, Review Essays and occasional Opinion Pieces. Book reviews and Opinion Pieces are by invitation only.

The Journal invites contributions related to the following subjects and their applications in tourism and hospitality: marketing management; innovations; global issues; economics; consumer behavior; organizational behavior; culture; methodology; sustainability; beverage management; planning and development; financial management; gender issues; ethics; entrepreneurship; education; and future trends. We also commission Special/Additional Issues – please contact the editors if you have a proposal for a Special Issue or Opinion Piece.

Journal History

Journal Previous Name: Disiplinlerarası Akademik Turizm Dergisi

eISSN : 2548-0847

Year: 2016-2018

https://dergipark.org.tr/en/pub/jomat

https://jomat.org

info@jomat.org

Journal of multidisciplinary academic tourism
2022, Volume: 7 Issue: 1
www.jomat.org

Editorial Advisory Board

Journal of multidisciplinary academic tourism
2022, Volume: 7 Issue: 1
www.jomat.org

Contents

Jomat

Journal of multidisciplinary academic tourism
2022, 6 (2): 1-18
www.jomat.org

ISSN: 2645-9078

Medical Tourism in the Turkish Republic of Northern Cyprus: Strategies for Improvement

Oritsetimeyin Victoria Arueyingho*, Matina Ghasemi, Tulin Bodamyali

Keywords:
Medical Tourism,
Northern Cyprus,
Quality Health care,
Medical Tourism in Northern Cyprus,
TRNC Tourism, Fertility Tourism,
Medical Tourism for In Vitro Fertilization

Article History:
Submitted: 12.03.2021
Accepted: 09.08.2021

ABSTRACT

"Right to health" is a fundamental human right and it is protected by international laws, also it turns over to states in three areas. Quality health care, affordability and the availability of necessary facilities and equipment's form part of the reasons why individuals in need of these services migrate to countries that fortunately have upgraded facilities ready to serve the needs of patients worldwide. The purpose of this study is to examine the perceptions of health practitioners, tourist agents (travel agents) and hotel managers, to determine if they are aware of the present condition of medical tourism in North Cyprus, and to discover the most sought-after procedure in the country. Thereafter the status of the most sought-after procedure was analyzed and strategies for improving this sub-sector alongside medical tourism were proposed. The study aims to provide insight for stakeholders, administrators and public officials in designing their strategies for improving this sub-sector of tourism, and to highlight the contribution of medical tourism to the development of the Turkish Republic of North Cyprus. The study is based on surveys given to participants selected by a snowball sampling and convenience sampling technique. Collected data were analyzed using basic coding methods of qualitative analysis. Results from the first part of the study revealed that the most sought-after medical procedures in TRNC were invitro fertilization treatments, and in the latter part of the study, the push-pull motivators and status quo of this sector were determined.

Doi: https://doi.org/10.31822/jomat.2022-7-1-1

1. Introduction

Healthcare systems are complex and there are a variety of things that a healthcare manager should know regarding its practice. A healthcare system infrastructure includes services, facilities, institutions and organizations. An adequate reaction of this infrastructure to the health problems of a population summarizes the entirety of a health-care delivery system (Stevens, Kroneman, & van der Zee, 2017). The National Bureau of Economic Research defines a health system based on three types of arrangements between healthcare providers. These arrangements include organizations with common ownership, contractually integrated organizations and informal care systems (Jarvis, Scott, El-Jardali, & Alvarez, 2020). It has been discovered that health systems follow general patterns and this led to the development of four basic models: The Beveridge model, The Bismarck model, The National Health Insurance model and the Out of Pocket Model (Chung, 2017). The healthcare system in North Cyprus (which is similar to that of Turkey) is composed of a highly complex structure which involves the ministry of health, universities and the private sector. The most active model of healthcare in Northern Cyprus is the National Health Insurance model which is delivered by the public health care system for citizens that possess mandatory social security (Rahmioglu, Naci, & Cylus, 2012). Many Turkish Cypriots seek health care from the private sector and high out-of-pocket healthcare expenses are also recorded. The government of Northern Cyprus has a scheme that involves the provision of free specialist healthcare in Turkey for its citizens who may be unable to afford the expenses associated with their health conditions in the private sector; therefore, they may visit public hospitals in TRNC to receive duplicate diagnoses and become entitled to free public services in Turkey (Rahmioglu, Naci, & Cylus, 2012). Turkey is one of the highest exporters of health services and this rubs off on the Turkish Republic of North Cyprus. Turkey was the

*Corresponding Author

Research paper

Oritsetimeyin Victoria Arueyingho:	*Pharm., Girne American University, University Drive, Karaman 99320, Girne, TRNC, Email: timeyinarueyingho@gau.edu.tr, Orcid Id: 0000-0003-1125-8819*
Matina Ghasemi:	*Asst. Prof, Girne American University, University Drive, Karaman 99320, Girne, TRNC, Email: matinaghasemi@gau.edu.tr, Orcid Id: 0000-0003-5143-1132*
Tulin Bodamyali:	*Prof., Girne American University, University Drive, Karaman 99320, Girne, TRNC, Email: tbodamyali@gau.edu.tr , Orcid Id: 0000-0002-4364-491X*

destination for approximately 560,237 international patients from 233 countries during the period 2012 to 2014 (Esiyok, Çakar, & Kurtulmuşoğlu, 2017).

Although there are challenges associated with the health delivery systems in Northern Cyprus such as shortage of medical staff and high cost of private health insurance, the positive growth of the healthcare delivery systems in Northern Cyprus has given room for the advent of medical tourism especially in fertility treatments and reproductive health (Berkmen, 2017). Medical tourism is the process by which people who live in one country travel to another country to receive medical, dental and surgical care while at the same time receiving equal to or greater care than they would have in their own country, and are traveling for medical care because of their affordability, healthcare excluded by insurance, better access to care or a higher level of quality care (Gan, & Frederick, 2011). It involves the combination of products and services from the tourism industry with the medical industry (Lee, Han, & Lockyer, 2012). Traveling for health purposes is not new; however, availability of expertise and the required facilities for the diagnosis, prevention, treatment and cure of a disease contribute to the frequency of travel to a particular country. Other factors that could encourage medical tourism include cheaper health services, higher success rates, cutting-edge experimental procedures and service quality dimensions which include reliability, tangibility, responsiveness and assurance (Sultana, 2014). The rapidly growing medical travel industry has implications for the health systems of both sending and receiving countries (Whittaker, Manderson, & Cartwrite, 2010).

Medical tourism in choice destinations would be non-existent without solid healthcare facilities and a progressive healthcare system; therefore, it is safe to say that the progressive growth of the healthcare system in North Cyprus has contributed to the industry of medical tourism. The separation of Cyprus into North and Southern states in the year 1974 grossly affected the growth rate of the healthcare system in Northern Cyprus. While the Southern side of Cyprus occupied by Greek Cypriots has experienced rapid growth, the growth of healthcare delivery systems in the North has been slower because of the embargo placed on it by the international community (Osumeje, 2015).

This paper elaborates medical tourism and its relevance alongside certain objectives such as highlighting the importance of medical tourism in North Cyprus, why medical tourists may seek treatment in North Cyprus, the most popular treatments available in North Cyprus, exploring the status of the most attractive service within the country and diagnosing its level of performance while providing general strategies for improvement. The concept of this qualitative research is based on the theory of planned behavior; this theory aims to link beliefs to intentional behavior. Hence, responses from participants clarify intentions behind their opinions about medical tourism in Northern Cyprus, and the basic tenets of medical tourism induced by attitude, norms and behavioral control become more glaringly obvious.

2. Research Objectives

The study aims at exploring the current state of medical tourism with the Turkish Republic of North Cyprus as the destination country. It is not surprising to assume that the only forms of tourism available in North Cyprus involve the sun, beach and sand, however, recently North Cyprus joined the World Health Tourism Congress (WHTC) that is the most established and longest running Health and Medical Tourism Event in the World – this is a positive step in the right direction as we can all change our perspectives to include medical tourism in the achievements of this state. It is unfortunate that information related to the status of medical tourism in North Cyprus is limited, this has served as a motivating factor for the conduction of this research, not only would it be a positive contribution to health tourism education but would unveil certain loopholes within the medical tourism industry in North Cyprus.

This research aims to answer several questions, they are:

Do tourists travel to North Cyprus specifically for medical treatments?

- What are the push-pull factors that affect medical tourism in North Cyprus?
- What are the personal opinions of hotel managers, tourism agents and health practitioners on the state of medical tourism in North Cyprus?
- What procedure/medical treatment is the most utilized by medical tourists in North Cyprus?
- Using available data, what is the status of the most sought after sub-sector of the medical tourism industry in North Cyprus?
- What are possible strategies and alternatives that may be effective in alleviating problems identified within this sub-sector of medical

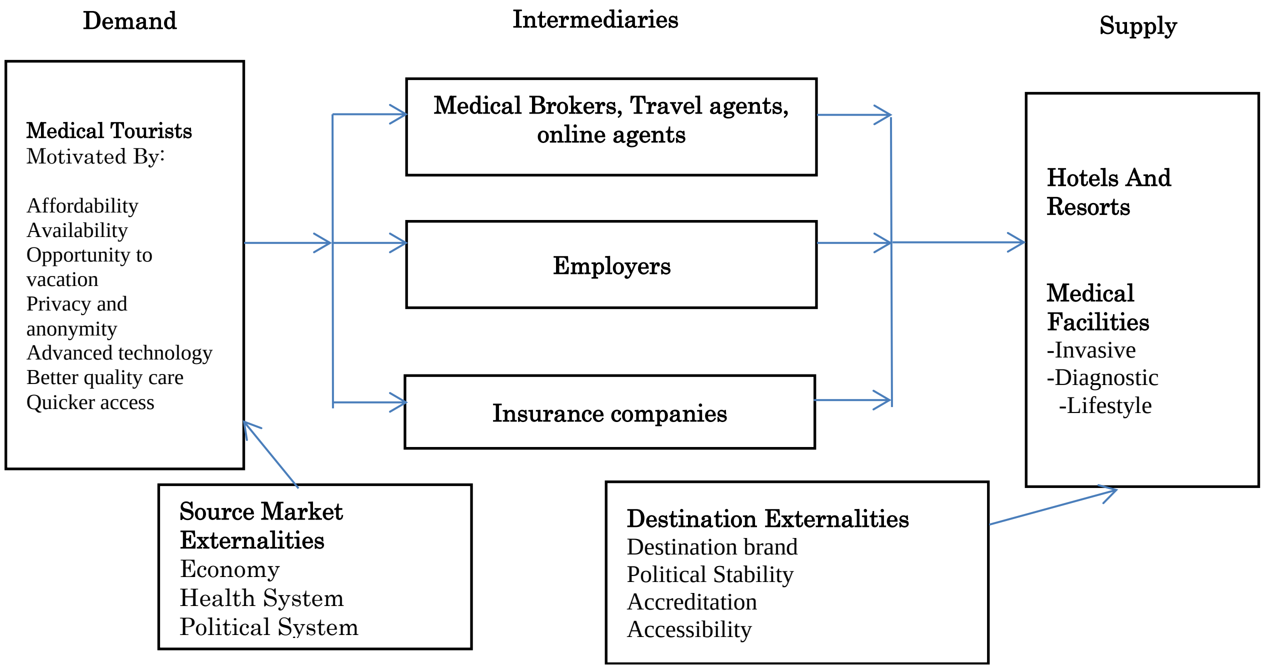

Figure 1: Medical tourism: An integrated model

Source: *(Hudson & Li, 2012)*

tourism and medical tourism as a whole in North Cyprus?

- What is the contribution of medical tourism to the development of health systems in the Turkish Republic of North Cyprus?

3. Theoretical Framework of the Study

Medical tourism relies on several theories, most notably those covering behavior. One of these theories includes the theory of planned behavior which is intended to explain the ability of an individual to engage in a specific behavior at a specific time. The key component of this model is behavioral intent. This theory can be applied to determine the intentions of individuals to participate in medical tourism (Ramamonjiarivelo, Martin, & Martin, 2015). Several researchers built on the few existing models of medical tourism and developed an integrated model that is aimed at guiding future research, depicting demand and supply perspectives and bridging intermediaries (Hudson & Li, 2012). This model showcases a relationship between medical and tourism stakeholders. The left side of the model depicts medical tourists who are influenced by affordability, availability, the opportunity to travel, privacy and anonymity, advanced technologies and better-quality care, while the right side of the model illustrates the supply side of medical tourism, the influence of hotels and resorts on medical tourism (Hudson & Li, 2012)

Another study conducted recommended that any study of domestic medical tourism should take into consideration the supply and demand perspectives of medical tourism to reveal the potential for medical tourism in a particular region (Heung, Kucukusta, & Song, 2010). This research by identifying the push-pull factors of medical tourists and assaying available data; would be able to achieve this feat.

4. Limitations

The limitations of this study are highlighted below:

- Limited relevant data on the status of medical tourism in Northern Cyprus
- Limited access to respondents (Hence, reliance on snowball and convenience sampling methods)
- Inadequate sample size and choice of subjective qualitative coding methods

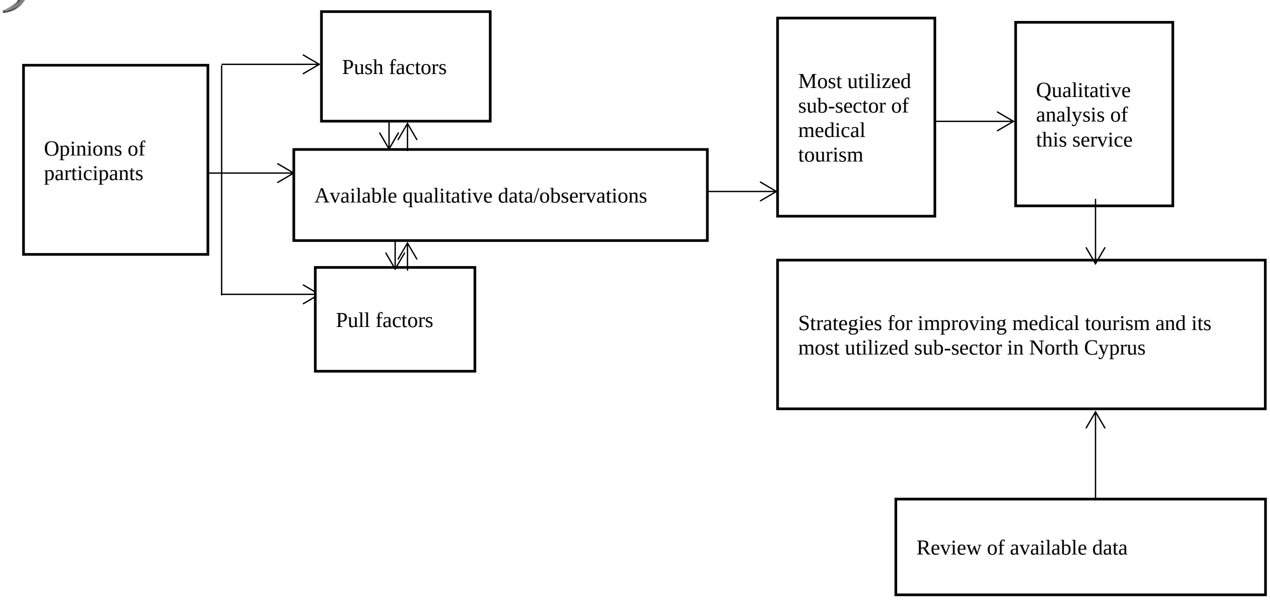

Figure 2: Proposed theoretical framework

Source: *Author*

5. Literature Review

Tourism itself may be difficult to define, but its notion is based on spending time away from home in pursuit of several activities like recreation, while taking advantage of the commercial provision of services (Walton, 2012). When it overlaps with other activities, interests and processes such as medicine (for example); it leads to the introduction of different categories and in this case- medical tourism. Medical tourism is also known as international medical travel and it involves patients who seek medical attention in other countries at relatively low cost, lesser delay and the inconvenience of being placed on a waiting list (Rogers, 2011).

The Health Care system of The Turkish Republic of North Cyprus

Health care systems are complex and are comprised of several building blocks which are not independent of each other; basically it is an organization of institutions, resources and individuals that deliver health care services to meet the health care needs of targeted populations. The building blocks of an ideal health care system include health service delivery, health workforce, information systems, financial systems, governance and access to essential medicines. Drawbacks in either of these blocks could affect overall performance and sustenance of the health care system in assessment. The healthcare system of the Turkish Republic of North Cyprus would be summarized under the headings of the building blocks (WHO, 2010).

Health service delivery is a building block of healthcare systems in which patients receive the treatment and supplies that they warrant, either with their personal finances, health insurance or some type of aid. According to the American Academy of Family Physicians (AAFP), the primary goal of an exemplary health care delivery system should be to encourage optimal health outcomes by providing moderate, patient-oriented, quality care with an emphasis on service. Healthcare service delivery is made available in the Turkish Republic of North Cyprus through several pathways which include the public health care system (which is made available to those who have social security insurance), the private sector (which exposes high out-of-pocket health care expenditures), the assessment of public services in Turkey (this is made possible through a formal scheme organized by the TRNC government to send individuals for free to Turkey for specialist care if the required services are unavailable) and the formal crossing of the border to receive public services in South Cyprus (Rahmioglu, Naci, & Cylus, 2012).

Another building block of the health care system is the health workforce, A sturdy workforce in the health sector would facilitate the ability of a country to meet its health goals; it is an added trump card if the available workforce are inspired, equipped, knowledgeable and properly skilled in handling circumstances evident within their command. There is minimal available statistics on the health workforce of TRNC; this is partially due to its ambiguous status that has affected investments from EU- and US-based hospital companies (Gauldie, 2017).

Health Information systems (HIS) is another building block of an ideal health system and predominantly, information regarding the HIS of countries can be obtained from agencies responsible for generating, compiling and analyzing the data. The Organization for Economic Co-operation and Development (OECD) serves to stimulate world trade and economic progress; they publish reports and statistics on a wide number of subjects for its 37 member countries. The TRNC is neither a member of the European Union nor the OECD, hence it is twice as difficult to retrieve reliable information of international standard; most health related data are published on the website of the state's ministry of health, Kuzey Kıbrıs Türk Cumhuriyeti Sağlık Bakanlığı and the state planning organization.

Access to essential medicines is a building block of a health care system and the World Health Organization defines them as medicines that satisfy the priority health care needs of the population. Essential medicines are supposed to be affordable and easily accessible, while accessibility may not be a problem in TRNC as there are a lot of community pharmacies, affordability and availability have proven to be quite a challenge especially for average Turkish-Cypriot residents in need of orphan drugs (Gokcekus, Toklu, Demirdamar, & Gumusel, 2012). Although prescriptions/medicine costs are cheaper when compared with other European countries, lack of data and high out-of-pocket expenditure has made it difficult to draw conclusions or make comparisons. The ministry of tourism and social media experts are therefore making great efforts to leverage the privacy, affordability (when compared to other European countries), short waiting lists and beautiful climate of the country, using them as pull factors of attraction (Altinay, & Hussain, 2005).

History and Growth of Medical Tourism

The practice of traveling for health and medical reasons is not new. The idea of medical tourism backdates to the Sumerians in 4000B.C (Mestrovic, 2018) but an all-inclusive health tourism system was developed by the Greeks (Benzler, 2013). The antique concept of medical tourism has however evolved from the use of mineral-rich water (spas) to surgical operations, fertility treatments and clinical experiments. Modern day tourism is believed to have started in the 1980's when health costs increased drastically in certain countries like the United States of America, patients were known to travel to other countries e.g. Costa Rica for dental surgeries not covered by their insurance (naraveeplasticsurgery.com, 2018). In the late 20th century, the government of Thailand directed its tourism officials to brand and market the country as a melting pot for plastic surgeries hoping to boost revenue, Bumrungrad International Hospital in Bangkok became one of Thailand's best known destination for medical tourists (Pickert, 2008). In the year 2017 it was recorded that approximately 35.38 million foreign tourists arrived in the country and they spent about 1.8 trillion baht (Froyd, 2018). In the early two thousands, it was reported that over 150,000 citizens of the United States traveled to Asia and Latin America, this figure has long since doubled (medicaltourism.com, 2019). Fast forward to the 21st century, data collated in the year 2018 revealed that the global medical tourism industry was valued at 16,761 million USD and it is estimated to reach 27,247.6 million USD by (mordorintelligence.com, 2019), these values represent tremendous growth of this industry.

When Turkey's traditional tourism industry dissipated, the country re-centralized its focus on the medical sector. It was reported that the influx of medical tourists in Turkey increased from 75,000 visitors in 2007 to more than 700,000 visitors in 2017 (Perryer, 2019). In the Turkish Republic of North Cyprus, it is claimed that visitors combine summer holidays with the opportunity to get IVF treatments, cosmetic or dental surgeries. In 2015, there was agreement between the North Cyprus Ministry of Health and two leading Swiss Medical associations for the purpose of increasing future Swiss health tourists as well as enabling the exchange of technology and personnel between these two countries (NCI.com, 2015).

The corona virus pandemic has had a negative impact on the state of tourism; travel restrictions, closed hotels and the desperate need for 'social distancing' have exacerbated declined travel rates, thereby affecting tourism negatively. While the management of covid19 related crises has been paid attention to by academics, there is little information on the possibility of tourism (medical) as a panacea for destination recovery (Abbaspour, Soltani, & Tham, 2021). The tourism industry, specifically medical tourism, may take a long time to be resuscitated, but this does not negate the fact that it may return to its former glory (Khan, Chauhan, Majeed, & Goyal, 2020).

Push-Pull Factors of Medical Tourism

There are several factors that encourage medical tourism; these factors are particular to the residential country of the medical tourist. These can be divided into push and pull factors, push factors drive people away from a place while pull factors attract people (IHRC, 2014). They are psychological motivations that may influence the behavior of a tourist. A new model of medical tourism has been designed to guide research, while taking into consideration the psychological factors that affect the behavior of tourists, perspectives of demand and supply were depicted alongside intermediaries that bridge them. The model stands out and remains unique due to the relationship that is established between medical and tourism stakeholders (Hudson & Li, 2012).

The model reveals a left and right side which are divided by intermediaries. The left side represents medical tourists who are motivated by affordability, availability, opportunity to vacation, privacy and anonymity, advanced technology, better quality care and quicker access. The Turkish republic of North Cyprus offers a degree of these factors, most especially opportunity to vacation and privacy, advanced technologies are available but may be limited while quicker access is inhibited by the embargo placed on the country as a whole. Supposed medical tourists willing to visit TRNC would also be influenced by the economic and political systems of their countries.

Intermediaries represent the channels through which medical tourists seek medical tourism. In the course of this research, these channels were explored and accessed to gain an insight on the presence and influx of medical tourists into TRNC. Those channels include medical brokers, travel agents and online agents; they bridge the gap between medical tourism providers and medical tourists. There are three forms of medical tourism as identified by Bookman and Bookman; they are invasive, diagnostic and lifestyle. High technological procedures are included in invasive forms of medical tourism; diagnostic procedures encompass several types of tests while wellness and recuperation treatments are enclosed in lifestyle forms of medical tourism (Medhekar, Wong, & Hall, 2014). The right side of the model illustrates the supply side of medical tourism which includes a combination of medical tourism facilities and hotels/resorts, all offering the three forms of medical tourism.

Medical Tourism in the Turkish Republic of North Cyprus

Cyprus is the third largest island in the Mediterranean and since 1974 Cyprus has existed in two parts: the North occupied by the Turks and the South occupied by the Greeks. North Cyprus covers an area of 3,355 square kilometers. The capital of North Cyprus is Nicosia and major cities include Kyrenia, Famagusta, Guzelyurt, Lefke and Karpaz. The skies are consistently cloudless and this encourages low humidity that makes the temperature bearable. North Cyprus is therefore promoted as an ideal location for summer and winter holidays. The new TRNC government statistics has revealed a significant growth in tourism, with increased numbers arriving from all over Europe, North America, Scandinavia and even new arrivals from China this encouraged the introduction of new hotels, traditional houses, boutique hotels and bungalows. Holiday tourism therefore blends perfectly well with medical tourism although competition is stiff due to embargoes and restrictions in transportation (Hussain, Mothiravally, Shahi, & Ekiz, 2012).

There are over 137 travel agencies working locally with international tour operators to increase revenue. The GNP of Tourism in North Cyprus increased from 1,527,899,266 TL to 3,814,495,652.1 TL from the years 2013 to 2018 respectively (State Planning Organization, 2018). Net revenue of $791 million was forecasted in the tourism industry for the year 2019 compared with the net revenue of $697.70 million generated in the year 2015 (Taşiran, & Özoğlu, 2017). The health care industry is witnessing changes to accommodate holiday tourists who may be in need of health care.

It was reported that in 2008, doctors provided general/surgical treatments to over 45,966 people and dental cure/treatment to 22,912 patients (Health and planning office, 2008). BFN Cosmetic Tourism, a local private company located in Kyrenia in collaboration with a private hospital in Nicosia has designed healthy medical tourist packages to encourage medical tourism in Europeans (bfncosmetictourism.com, 2009). These packages include procedures such rhinoplasty, otoplasty, face lifts, breast augmentation, labiaplasty and dental surgery in combination with flight and hotel bookings, post-operative checks and airport transfers (Hussain, Mothiravally, Shahi, & Ekiz, 2012).

In 2007, a three-day conference themed The Globalization of Medical Tourism was held in

Amman (the capital of Jordan) under the royal patronage of King Abdullah II. The TRNC delegation was led by Fikri Ataoğlu (The Minister of Tourism and Environment) and the President of TRNC's Health Tourism Council, Ahmet Savaşan, with the aim of promoting world class health facilities to new audiences (T-VINE, 2017). It was thereafter reported that the TRNC attracts an estimate of 20000 new patients annually as the state has repeatedly worked hard in building a reputation in a number of fields such as cosmetic surgery, invitro fertilization, physiotherapy and dentistry. Tina Malone, a popular actress, was 50 years old when she gave birth in the year 2013 after receiving treatment from Dr. Gazvani at a North Cyprus treatment Centre in Famagusta (Genower, 2017). Fast forward to 2019, the Turkish Republic of Northern Cyprus participated in the third Global Health Care Forum which was held in Baku, Azerbaijan. In this forum, certain tasks were defined, such as: establishing real cooperation and support between healthcare and tourism, developing and adopting the mechanism and tactical approach of this cooperation (globalhtc.org, 2019).

A strategic analysis of medical tourism in North Cyprus was conducted several years before, findings involved a PEST and SWOT analysis that outlined possible conditions for the development of medical tourism in the future and necessary recommendations were highlighted (Hussain, Mothiravally, Shahi, & Ekiz, 2012). A few years later, the attitudes of the stakeholders in the health tourism sector of North Cyprus towards education on health tourism were analyzed in a study conducted by Ahmet Savaşan and colleagues. It was concluded that there was limited and insufficient literature regarding health tourism education and that the stakeholders of this sector needed to be educated about the sustainable economic contributions of health/medical tourism to the country (Savaşan, Yalvaç, Uzunboylu, & Tuncel, 2018). The perceptions of the residents of North Cyprus towards medical tourism were observed using the snowball sampling method of data collection and analyzed statistically to identify the motivational factors of the respondents, thereafter it was discovered that residents were more comfortable with the medical facilities in Turkey than on the island itself (Birader, &Ozturen, 2019). This research paper aims to expand available knowledge by focusing on a different target group while taking into consideration that a lot of changes may have occurred over time.

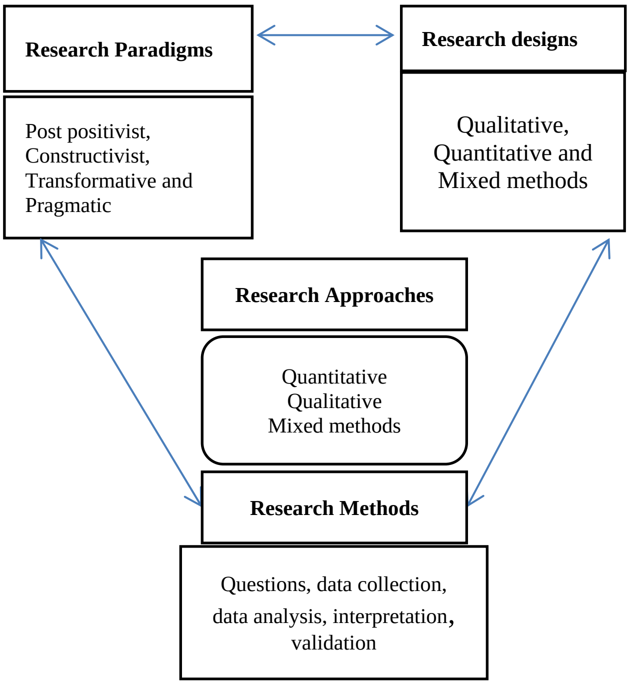

Figure 3: A framework for research
Source: *(Creswell, 2003)*

6. Research Methodology

The research design framework that was used to explore this research process was devised by John Creswell. This framework is ideal because it is clear and comprehensive. The framework is composed of research paradigms, designs and research methods (Creswell, 2003).

Research Paradigm

In this research, the constructivist paradigm was used. It refers to the idea that reality is constructed via socio-environmental interactions. The focus relies on the unique qualities of the participants and their experiences; hence their views of the situation would be studied.

Research Design

There are two types of research methods; they are quantitative and qualitative research. Quantitative research involves the use of a statistical approach to quantify variables and then generalize results from the sample population, while qualitative research involves the analysis of textual, visual, or audio data and covers a broad spectrum from confirmation to exploration (Mihas, 2019). It does not only focus on "what" people think but also "why" they think the way they do (Bhat, 2019). The qualitative method of research was used for this study to observe and analyze the psychological motivators of the participants towards medical tourism in North Cyprus and their personal opinions on several questions that may help in achieving the objectives of the research. Qualitative observations, interviews and qualitative documents were also analyzed to aid in the research, hence, it could be said to be an observational exploratory study.

There are different models of qualitative research methods, ranging from the narrative model to the phenomenological model. The phenomenological-case study model of qualitative research was essential for this study because it is aimed at developing a complete, accurate, clear and articulate description and understanding of the experiences and opinions of the focus group.

The sample of the study consisted of 30 questionnaires investigating the nature of medical tourism in North Cyprus with hotel managers, travel agents and healthcare practitioners. The survey questionnaires were prepared using open-ended questions, thereafter; the data was collated and analyzed using basic qualitative methods. Subsequently, structured questionnaire surveys were sent to the chief medical directors and managers of fertility clinics in Northern Cyprus using an electronic method, the purpose of these questionnaires were to reveal the strategic position of their facilities in the medical tourism industry when compared to other choice destinations.

Research Methods

A snowball sampling technique was used in the first part of this study, this non-probability method is appropriate when the target group is difficult to reach and to ease data collection. Target respondents were found in their offices and with the help of colleagues. The second part of the study involved a convenience sampling method, because although a large number of individuals were contacted, only seven participated.

Data Collection

To carry out the study, data collection was done through survey questionnaires. Thirty (30) questionnaires were given to travel agents, hotel managers and health care practitioners. The purpose of the questionnaires were explained to the respondents, thereafter they were filled and returned while their anonymity was guaranteed. The primary location of the respondents was Kyrenia, North Cyprus. The respondents included ten (10) travel agents, seven (07) hotel managers and thirteen (13) health practitioners. The duration of data collection was five months, specifically between November 2019 and March 2020.

Thereafter, a series of structured surveys were sent to fifteen (15) fertility Clinics in North Cyprus, this is because results from the first survey revealed that fertility clinics were the most viable sector medical tourism in North Cyprus. Seven responses were received anonymously, the data was subsequently coded and grouped, while extracted information provided variables used in the evaluating push-pull factors.

Data Analysis

Responses from the first questionnaire were analyzed using basic qualitative tools which eventually established the existence of medical tourism in North Cyprus, the most viable sub-sector, alongside existing push-pull factors within this industry. Results from the second survey questionnaire were also coded, grouped and analyzed further. They provided more clarity on the push-pull factors of medical tourism within the state. It is intended that at the end of this study, strategies that would propel the most-viable sector of medical tourism would be provided, and they would serve as a guide for policy makers in order to strengthen other weak-links within the medical tourism industry of Northern Cyprus.

Limitations of this study include the choice of pure qualitative research methods (subjective coding analytical methods), limited access to participants, and inadequate sample size.

7. Results

Thirty questionnaires were filled anonymously by health practitioners, hotel managers and tourist agents; the data were thereby collated and represented below:

Table 1: Data from respondents who knew persons that had traveled from foreign countries into Northern Cyprus for medical purposes and their accommodation/length of stay.

Table 1: Data from respondents who knew persons that had traveled from foreign countries into Northern Cyprus for medical purposes and their accommodation/length of stay

If yes, clearly state the accommodation type (five or four star hotel; private or general hospital) and length of stay (X)	**Unsure**	**Definite**	**Total Response Category Count**
Total respondents who answered	4	2	6
% of respondents who answered X	13%	7%	20%
Unsure	1		
Unsure	1		
boutique hotel, 1 week		1	
boutique hotel, few months		1	
I don't know	1		
Unsure	1		

Source: *Author*

Table 2: Respondents opinions on the most sought after treatment options in Northern Cyprus

In your opinion, North Cyprus is suitable for which type of treatment? (X)	IVF	Dental procedures	Cosmetic surgery	Others	Total Response Category Count
Total respondents who answered X	12	2	4	4	22
% of respondents who answered X	40%	7%	13%	13 %	73%
botox, invitro fertilization, cosmetic surgery	1		1		
fertility treatment	1				
cosmetic surgery					
invitro fertilization and egg donation			1		
IVF, ENT, IVF	1			1	
Rhinoplasty, dental surgery		1	1		
eye, dentist and invitro fertilization	1	1		1	
nose job, invitro fertilization	1		1		
invitro fertilization	1				
many treatments				1	
any treatment but expensive				1	

Source: *Author*

Table 3: Respondents personal opinions on their choices to either stay and/or leave TRNC

state reasons for selecting your above answer (question 9) (X)	**Prefer to stay**	**would rather leave because of insurance**	**would rather leave because it is expensive**	**would rather leave for other reasons**	**Total Response Category Count**
Total respondents who answered X	6	1	8	4	19
% of respondents who answered X	32 %	5%	42%	21%	10 0%
because Cyprus is good for tourism. Treatment is expensive. Does not cover international people like me for insurance			1		
VISA problem	1				
I make money here, insurance covers most of my health needs, it is not expensive except I want expensive treatment	1				
Very expensive. Especially for cancer			1		
Personal				1	
it is expensive. They do not treat any diseases here.			1		
I am Turkish. Going to contry easy for me. Turkey cheap too			1		
it is expensive to travel. We have good eye and dentist clinic. Insurance covers basic disease	1				
Kıbrıs expensive. Not many procedures			1		
many hospital. Many surgeries here. I am not sick. Health insurance covers	1				
expensive to travel and many specialist hospitals abroad			1		
not many hospitals here				1	
Kıbrıs expensive. More opportunities in Turkey			1		
it is my home. I make money here.treatments available	1				
Expensive. Insurance does not cover many sicknesses		1			
traveling is expensive and plenty facilities in kibris	1				
Better care in countries like India. Cheaper. More research			1		
better countries outside Cyprus giving better care				1	
I not leave country before. Here not good for certain treatments				1	

Source: *Author*

A simple grid with coded data was prepared to collate and adequately represent the data provided in the questionnaire. The letters HM were used to represent hotel managers, TA for tourism agents and the letters HP were used to represent health practitioners. Yes or No questions were represented with Y and N, R refers to respondents and questions were represented with numbers 2, 3, 7 and 11. Percentages were used to represent the number of people who consented to different options.

Table 4: Coded grid showing responses to the questionnaire

	Position	2	3	7	11
R1	TA	Y	Y	Y	N
R2	HM	N	N	Y	N
R3	HM	N	Y	Y	N
R4	TA	N	N	Y	N
R5	TA	N	N	Y	N
R6	HM	Y	N	Y	N
R7	HP	Y	Y	Y	N
R8	HP	Y	N	Y	N
R9	HP	Y	Y	Y	N
R10	TA	Y	Y	Y	N
R11	HP	Y	N	Y	N
R12	HP	Y	N	Y	Y
R13	HP	N	N	Y	N
R14	HP	Y	Y	Y	N
R15	HP	Y	Y	Y	N
R16	TA	N	N	Y	N
R17	HM	N	N	Y	-
R18	TA	N	N	Y	N
R19	HM	N	N	Y	N
R20	HP	N	N	Y	N
R21	TA	Y	Y	N	N
R22	TA	Y	Y	N	-
R23	HM	Y	N	Y	Y
R24	HP	N	Y	N	Y
R25	HP	Y	N	Y	N
R26	TA	Y	Y	N	Y
R27	TA	Y	N	N	N
R28	HP	Y	Y	N	N
R29	HM	Y	N	Y	Y
R30	HP	N	Y	Y	Y

R= Respondent HP= Health Practitioner TA= Tourism agent HM= Hotel manager Y= Yes N= No
***Source:** Author*

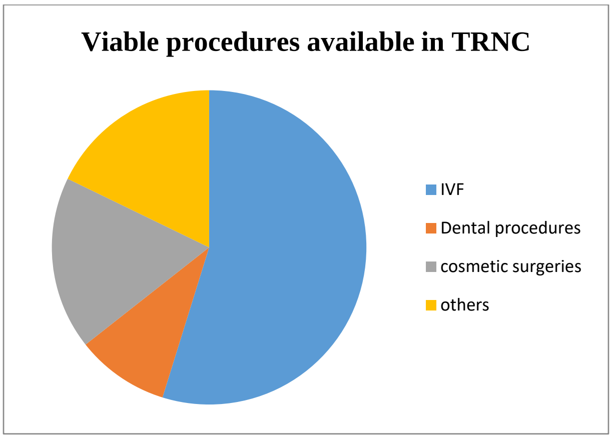

Figure 4: Viable procedures available in the Turkish Republic of North Cyprus

A simple grid with coded data was also prepared to collate and adequately represent the data provided in the second questionnaire.

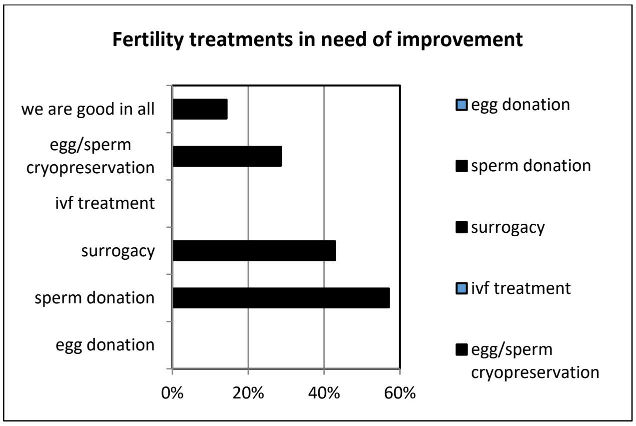

Figure 5. Areas of fertility treatments in need of improvement
***Source:** Author*

Table 5: Coded grid showing responses to second questionnaire

Popular treatment?	Waiting list	Medical tourists?	Marketing team?	Target countries?	Need for improvement?	Lack of professional staff?	What department?
IVF with ICSI	SWL	Y	Y	The UK, Russia, France and neighboring European	We are good in all	N	N
ED	SWL	Y	Y	WW	SG	N	N
ED	SWL	Y	Y	WW	SG	N	N
ED	SWL	Y	Y	WW but specifically the UK	SD	N	N
OR	SWL	Y	Y	Everywhere. We have agents in Turkey, UK, France, and Germany	SD	N	-
CS	SWL	Y	Y	the UK	SD, egg/sperm CP	N	N
IVF F	SWL	Y	Y	ALL	SD, SG, egg/sperm CP	N	-

IVF= Invitro fertilization ICSI= Intracytoplasmic Sperm Injection ED= Egg donation OR= Ovarian rejuvenation CS= cannot say SWL= Short waiting list Y= Yes N= No WW= Worldwide SG= Surrogacy SD= Sperm donation CP= Cryopreservation
***Source:** Author*

8. Discussion

The objectives of this research would reveal the current state of medical tourism in the Turkish Republic of North Cyprus. While there is no concrete data and statistical proof to defend the presence and population of medical tourists in TRNC, it is inarguably true that several individuals travel to Northern Cyprus specifically for medical purposes. Several intermediaries such as direct traveler (winner of eight travel awards), promote medical services in North Cyprus alongside their holiday tourism plans. General awareness of the existence of medical tourism in Northern Cyprus was also reported. While 40% of the entire population claimed to not be aware of medical tourism in Northern Cyprus, 30% of health practitioners, 20% of tourism agents and 10% of hotel managers were confident about Northern Cyprus being a medical tourism destination. Results from the questionnaire also revealed that 20% of the respondents knew someone or several persons who had visited the island for medical purposes, while 13% were unsure of their length of stay and accommodation type, 7% seemed to remember that most of these tourists stayed in boutique hotels and were available for several weeks to a few months. Knowledge about the existence of medical tourism in North Cyprus seemed poor as only 60% of the respondents were aware that tourists visited the country specifically for medical reasons, 33% of these respondents were tourist agents and majority were health practitioners. Approximately 37% of these respondents proclaimed that individuals from the United Kingdom made of the largest population of medical tourists in their facilities, while 30% were unsure as they could not categorically state where the medical tourists in their facilities came from. No respondent mentioned medical tourists from Iran and the Middle East, and tourists from Africa made up the least percentage with about 10%.

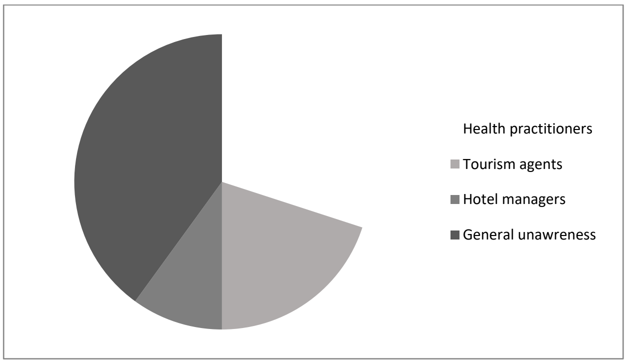

Figure 6. Level of awareness of medical tourism as reported by the respondents

Source: *Author*

It was reported that tourism constituted approximately 8.7% to the GNP of North Cyprus in the year 2016 and currently, tourist activities represent a major aspect of economic growth (TRNC Public Information Office, 2020). Available statistics revealed that Turkey had the highest arrivals by country as at the year 2012 followed by UK-non Turkish Cypriots, and this figure increased to about 776,428 tourists in the year 2018, however, there is no data to reveal that they came specifically for medical purposes. Respondents of this study however acknowledged that while there were visits by Turkish nationals, tourists who came specifically for medical purposes migrated from other regions. A recent study revealed that 61 out of 178 tourists who visited North Cyprus were British, and this was similar with the number of Turks who visited Northern Cyprus for tourism; 93% of these tourists visited for purposes other than seeking medical attention (Akhavan, 2012).

North Cyprus Medical Tourism Popularity by Treatment Type

Responses to the subjective question on the type of medical procedures that attracted foreigners to the Turkish Republic of Northern Cyprus were recorded. 40% of those who responded (73% of the entire population) to the fourth question on the first questionnaire claimed that IVF procedures were the most popular, 13% of the responses highlighted cosmetic surgeries, while 7% claimed they were dental procedures, the remaining 13% of the responses included a variety of other procedures.

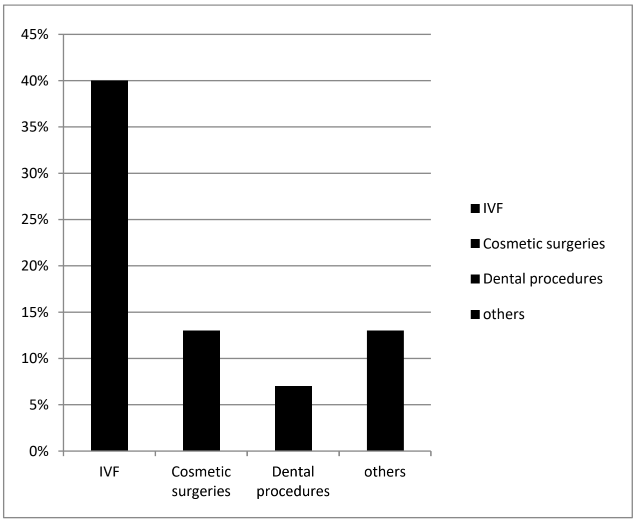

Figure 7. Most popular medical procedures in Northern Cyprus

Source: *Author*

A comparative analysis between Northern Cyprus and other major medical tourism destinations may provide an insight into the performance of this defacto state. The market size of global medical tourism was valued at over 44.8 billion dollars in the year 2019, and although the coronavirus pandemic has grossly affected its growth, with all factors being equal, the compound annual growth rate of medical tourism is expected to be 21.1% (grandviewresearch.com, 2020). It is highly expected that Northern Cyprus would contribute positively to this growth.

Thailand was reportedly one of the most popular destinations for medical tourism in the year 2019 (grandviewresearch.com, 2020), India and Turkey also were among the most visited countries in the year 2019 for medical tourists. In Thailand, the most preferred type of treatment was cosmetic surgeries. Similarly, medical procedures like gastric bypass, hip and knee replacements were more affordable in India and were the most popular types of procedures. When compared to Northern Cyprus, there appears to be a limitation on the treatment types available within the defacto state. Legal limitations in Thailand such as unrecognition of unmarried and same-sex couples may restrict its viability as a choice destination for fertility treatments, when compared to Northern Cyprus.

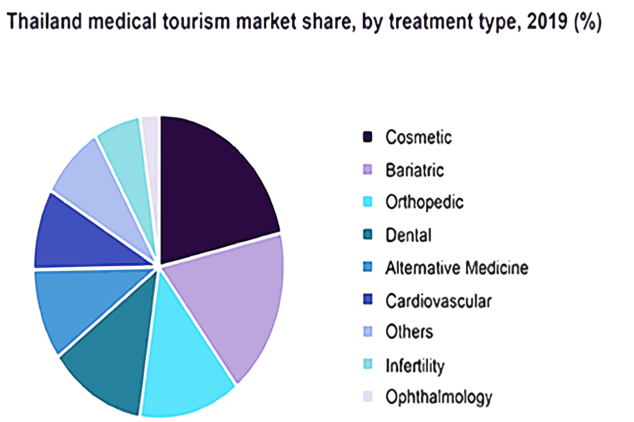

Figure 8. Thailand medical tourism market share, by treatment type

Source: *(grandviewresearch.com, 2020)*

Push-Pull Motivators of Medical Tourism in Northern Cyprus

Responses from the questionnaire and reviews of available literature revealed certain push-pull motivators that may have affected medical tourism in North Cyprus. Several questions from the questionnaires served as key motivational indicators. It was observed that all the fertility clinics had procedures that stood out and generated the most income, although they varied per clinic, overall viability was above average. The fertility clinics also reported to have short waiting times, cheaper procedures, marketing teams, experienced staff, limited intrusion from the government and a safe environment to operate. All these could serve as solid reasons behind the attraction of foreigners into the de-facto state.

Table 6: Questions arranged in groups to highlight motivational factors

QUESTION	GROUPING	Good	Average	Poor
What is your most popular treatment and is it affordable?	Viability	✓		
Do you have a long or short waiting list and are your patients promptly attended to?	Waiting time	✓		
Do you receive foreign patients in the form of medical tourists and have you experienced referrals from this clientele?	Client turnover	✓		
Do you have a Marketing team or agents to reach patients abroad? If Yes, do they excel? If No, why don't you have?	Marketing and Networking	✓		
What areas do you feel need improvement?	Internal factors		✓	
Are you experiencing any shortage of staff?	Staffing	✓		
Are your staffs professionally trained?	Staffing	✓		
Are you satisfied with the level of safety and environment of Northern Cyprus?	Safety and Environmental factors	✓		
Are there governmental policies that influence your work?	Influence of government policies		✓	
Do you have the latest technology?	Technology	✓		
Does the embargo on North Cyprus affect your ability to receive foreign patients?	Legal factors		✓	
Do you think that there is enough awareness of medical tourism and that it could positively affect your clinic?	Networking / marketing			✓

Source: *Author*

Motivation is a key concept in medical tourism and it can be described as the force that drives individuals to take action, in this case, travelling to another country for medical treatments; tourist motivation is therefore now an established area of tourism research (John, & Larke, 2016). According to the push-pull model, internal/psychological forces push individuals to make travel decisions and external forces of the choice destination pulls/attracts them (Walker, & Walker, 2011). This study revealed that tourists from the United Kingdom made up the largest percentage of individuals who travelled specifically for medical reasons, *what then are the push factors for these tourists?* And *why was the choice destination TRNC?*

An article written for the daily mail titled, "'Everything is legal here': British couples are being lured to a lawless 'ghost town' in Northern Cyprus where they can avoid UK law to choose the sex of their baby", revealed that gender selection was illegal in the United Kingdom but in Northern Cyprus, there would be no legal issues (Kelly, & Allen, 2018). 40% of the respondents agreed to the fact that majority of the medical tourists who visited TRNC came for fertility treatments and 13% for cosmetic purposes, the Turkish Republic of Northern Cyprus has therefore become a center for egg donations, the creation of designer babies and other in vitro fertilization techniques due to the lack of legal restrictions, shorter waiting times and lesser expenses.

Cosmetic procedures available in North Cyprus include rhinoplasty, areola reduction, arm lifts, breast implants, belly button reshaping, breast lifts, liposuctions, butt lifts, eye lifts, face lifts, fat transfer, facial feminization surgeries, genital reshaping and labiaplasty. Dental cosmetic procedures are also categorized under cosmetic procedures and they include dental crowns, dental implants and teeth whitening. Online reviews from Cosmetic Surgery Cyprus (CSC) revealed that medical tourists from the United Kingdom were benefactors of these services offered in TRNC. One of such reviews praised the CSC for their professional service, acknowledged the easy booking process and short waiting time, and then rendered accolades to the cosmetic doctors and the medical facilities present at Near East University Hospital. Another review by a medical tourist read, '….*Yes, the price was lower than that of the UK, but that did not mean there was a compromise on the quality of work, safety and level of nursing care….'* There were complaints about limited English language from the nursing staff, but this did not negatively influence the quality of service offered in this hospital (whatclinic.com, 2019). Popular cosmetic procedures such as breast lifts, liposuction and rhinoplasty cost about £2500, £1808 and £2500 in this hospital compared to about £5000-£7000 in the United Kingdom, consultation with plastic surgeons is also free in most facilities in the Turkish Republic of Northern Cyprus (Thasariya, 2019).

Table 7: A classification of the cost of medical procedures in the UK, Turkey and Northern Cyprus

Medical procedures	**Cost in the United Kingdom**	**Cost in Turkey**	**Cost in Northern Cyprus**
Breast lift	£5000-7000 (Thasariya, 2019)	£2900 (Medical Tourism in Turkey, 2020)	£2500 (Thasariya, 2019)
Liposuction	£5000-7000 (Thasariya, 2019)	£2200 (Medical Tourism in Turkey, 2020)	£1808 (Thasariya, 2019)
Rhinoplasty	£5000-7000 (Thasariya, 2019)	£2900 (Medical Tourism in Turkey, 2020)	£2500 (Thasariya, 2019)
Fertility treatments	> £5000	£2200-9700	>£2200

Source: *Author*

Pull factors of medical tourism in North Cyprus therefore include:

- Cheaper health care
- Lesser legal restrictions
- Shorter waiting lists
- High success rates
- Availability of optimum health care facilities
- The climatic conditions and side attractions of the country (which are essential for post-operative recovery)

However, a large population of the residents of North Cyprus would rather travel to other countries for medical purposes. 42% of the respondents complained that health care and medical procedures were rather too expensive for them (probably because the services are paid for in euros and most indigenes earn a lot less in Turkish Lira) and 21% of the respondents would rather leave for other reasons. This decision to leave may be influenced by the local economy of the de-facto nation, currently the minimum wage is officially 3150TL and many individuals are still being paid below this amount (Security, 2019). The estimated cost of living for a single person is about 2500TL per month excluding rental fees, and with poor health insurance systems and high out-of-pocket payments, achieving treatments worth thousands of Turkish Lira may be far-fetched for some individuals, cheaper medical tourist destinations may be a better option.

Push factors of medical tourism in North Cyprus therefore include:

- Inflation and the Economy
- High expenses for residents
- Inadequate infrastructural facilities for the treatment of predominant diseases or complicated surgical procedures
- Inadequate bed spaces and health practitioners

Fertility Treatments in the Turkish Republic of Northern Cyprus

Several procedures were reported by the respondents as being the most sought after options within their fertility clinics, they include: Invitro fertilization, Egg donations, and ovarian rejuvenation, seemed to be the most popular. Egg donors are paid for their services and their anonymity is always guaranteed, as a matter of fact, the donors are not meant to know the recipients. Eurocare IVF describes this entire process on their website and state that the entire package costs about €5000/£4400 (IVF, 2021) which although is greater than the previously mentioned £2200 average, is cheaper than most hospitals in the UK that would charge approximately £9000 (eggdonationfriends.com, 2021) and Thailand that would charge approximately $6110 (£4460) (123.clinic, 2021). Egg donors are paid depending on the number of viable eggs they are able to produce, they are usually granted routine check-ups and given necessary medications before their eggs are collected. The harvested eggs would be fertilized by single sperm cells using a procedure called intracytoplasmic sperm injections before the embryo is being transferred few days later into the uterus of the recipient, usually recipients are not told to pay an additional fee for ICSI thereby making it an attractive offer.

In addition to the availability of a wide variety of fertility treatment options and its affordability, all respondents acknowledged that they had short waiting lists. Hence, they are able to attend to patients as early as possible and they would not experience the inconvenience of waiting for a very long time. Quite frequently, young women are encouraged to donate their eggs regardless of the availability of recipients; these women are profiled according to certain requirements and paid after their eggs have been harvested. However, certain services seem to suffer as highlighted by the respondents and they include surrogacy, sperm donation and egg/sperm cryopreservation. The reasons for this were not adequately investigated, but all clinics agree that they are neither under-staffed nor lacking any technical expertise.

Medical Tourism: Improvement Strategies

A medical tourism and consultant group called Mercury Advisory Group help benchmark medical tourism initiatives and new market entrants with project scoping, thereby making it easier for them to comprehend their concepts of medical tourism and strategic frameworks. They created a list that is intended to help members of the medical tourism industry work efficiently towards the development of a five-year medical tourism development strategy. Some points off this list include (Todd, 2020):

- Identifying relevant strategies, plans and programs for their medical tourism sectors and executing them with effective techniques (Singh, 2019)
- Cooperation by relevant authorities in a medical tourism destination in order to encourage development. For example in Turkey, there are national medical tourism councils or boards that coordinate all formal and informal parties which have a role in the development of the sector.
- Attraction of foreign and national investments to the medical tourism sector by way of providing different privileges such as tax incentives
- Engaging curriculum specialists and experienced professional trainers to identify training needs and develop specific learning objectives and fund training activities
- Provision of transparent prices in the form of packages for their surgical and diagnostic services. Packages often include references to services provided, and may include ground transfer and accommodation beyond the hospital stay. Failure to do this may result in a loss of clientele.

Several economic factors of the TRNC may serve as opportunities for medical tourism growth such as the absence of terrorism, low homicidal rates and freedom of the press, however inefficiency of legal frameworks in challenging regulations, poor airport connectivity, poor Intellectual property protection and poor auditing strengths and reporting standards are possible disadvantages. Organizations within an industry would therefore thrive in an enabling environment which encourages maximum security, checks and balances, good corporate governance, ICT adoption, trade openness, flexibility and macroeconomic stability. TRNC ranked 89 out of

140 countries in the 2018 Global competitiveness report, while this is not a good position, there is still hope as governmental agencies are working tirelessly to cause an improvement even with the existence of restrictions (Hasan Amca, 2019).

Intermediaries such as tourist booking agents leverage on cheap air travel to encourage the arrival of tourists from other countries. Due to the coronavirus pandemic, air travel took a significant hit from initial over capacity to multiple restrictions. There is only one airport in Northern Cyprus and airlines such as Pegasus, Turkish Airlines, Corendon, Anadolu Jet and Sun Express all fly directly into Erçan; the governmental protection of these airlines in the wake of a global recession would determine their sustainability and survival, because most of them experienced financial problems even before the pandemic. It is highly unfortunate that revenue has been lost due to the temporary ban of quick in and off airline travel, this served as a blow to the industry of medical tourism in both Turkey and TRNC. It is however predicted that there would be a lot of delays and it would take months before air travel would return back to how it was, therefore, booking a holiday or medical trip has never been more uncertain. A recent article on medical travel highlighted the possibility of many countries having a re-think of tourism and a high certainty that medical tourism would be at the bottom of the priority list (Youngman, 2020).

The most popular form of marketing strategy used by organizations in the TRNC medical tourism industry is that of cost leadership. This form of strategy involves increasing profits by reducing costs of services/products and increasing market share by charging lower prices, while still making a reasonable profit. This type of strategy has been successfully used to attract individuals from developed countries into TRNC who unfortunately have to pay expensive health costs in their home countries.

Several alternative strategies for development and improvement could be proposed:

- Joint collaboration between the Ministries of Tourism and Health in the simultaneous promotion of the environmental/climatic pros of TRNC and the available medical resources/facilities
- Creation of policies, regulations and laws that would encourage cross-participation between ministries and guidance of affairs related to medical tourism in TRNC
- Continuous alliance with Turkey alongside promotion of TRNC related medical tourism offers, thereby making TRNC an extension of Turkey which is already a recognized tourist destination; this compensates for the current embargoes and restrictions placed on TRNC.
- Deliberate governmental input to include medical tourism education in the curricula and overall training in the ministries of tourism and health, on administration, marketing and delivery.
- Adopting health certifications and international accreditations from Turkey, e.g. Joint Commission International
- Organization of training and activities of professional development for providers of medical tourism
- Design and Implementation of database systems used to standardize transactional metrics and produce customer service outcome reports
- Aligning with Turkey to gain international safety and quality accreditations pending the recognition of TRNC as an independent country
- Development of their own International Safety Quality -accredited national accreditation system with strict verification processes
- Encouraging versatility within the healthcare practitioners in the aspect of language so as to strengthen communication with tourists
- Collaboration between hotels and hospitals so as to establish space-sharing arrangements to accommodate travelers accompanying patients and/or creating settings to encourage post-operative recovery within their facilities
- Rebranding the website of the Ministry of Tourism (Turizm ve çevre bakanlığı) to look attractive and include information on medical tourism
- Building strong ties with international health insurance companies
- Sponsoring international medical tourism events in TRNC

9. Summary and Conclusion

The limitations of this study did not hinder the generation of solutions and answers for the stated objectives. Responses from the questionnaire and reviewed articles revealed that individuals traveled from other countries into TRNC specifically for medical purposes, and although reliable statistics is absent, available information showed that individuals from the United Kingdom made up most of the medical tourists in Northern

Cyprus. The research went ahead to identify the most popular procedure, push-pull motivators of medical tourism in Northern Cyprus and how these factors could be leveraged to boost medical tourism in the country.

The opinions of tourist agents, hotel managers and health practitioners were taken into consideration and it became evident that domestic economic factors do not encourage the utilization of available healthcare facilities by residents of the country. Also, cosmetic procedures and fertility treatments are the highlights of the TRNC medical tourism industry, therefore residents who are in need of other invasive treatments such as cardiac transplants may be unable to undergo such procedures due to expenses, lack of equipment's, specialized hospitals and personnel, thereby encouraging their exit to other cheaper countries. It was also observed that TRNC is a popular and reliable destination for a variety of fertility treatments, specifically egg donation, and invitro fertilization. Short waiting lists, affordability and availability, are factors that have also acted as solid pull-factors to fertility treatments within the medical tourism industry of Northern Cyprus.

In conclusion, medical tourism is still at its infancy in Northern Cyprus. It is therefore advisable for governmental and non-governmental organizations to 'put their hands to the plough' by not neglecting medical tourism which is an important sector of the tourism industry and taking advantage of resource materials such as these to increase competitive advantage and improve customer gains and/or retention.

10. References

123.clinic. (2021). Retrieved 2 8, 2021, from 123Clinic: https://www.123.clinic/en/clinic-search/egg-donation/thailand

2traveling. (2019). *Top 10 World's best Medical Tourism Destinations in 2019*. Retrieved from 2traveling: www.2traveling.com/top-10-worlds-best-medical-tourism-destinations/

Abbaspour, F., Soltani, S., & Tham, A. (2021). Medical tourism for COVID-19 post-crisis recovery?. Anatolia, 32(1), 140-143.

Akhavan, A. (2012). An Analysis of the North Cyprus Image from the Foreign Tourists' Perceptions (Doctoral dissertation, Eastern Mediterranean University (EMU)-Doğu Akdeniz Üniversitesi (DAÜ)).

Altinay, M., & Hussain, K. (2005). Sustainable tourism development: a case study of North Cyprus. International *Journal of Contemporary Hospitality Management*. 17 (3) 272-280

Benzler, D. (2013). Historical Background of Medical Tourism. *Medical Tourism*.

Berkmen, B. (2017). An Investigation: Opinions of Individuals on In Vitro Fertilization (IVF) Living in North Cyprus. *Recent Developments in Sociology and Social Work*, 237.

bfncosmetictourism.com. (2009). Cosmetic tourism in bfn cosmetics. Retrieved 2 Agust 2021 from TOURISM: www.bfncosmetictourism.com

Bhat, A. (2019). Empirical Research: Definition, Methods, Types and Examples. QuestionPro. Retrieved November 20, 2019, from https://www.questionpro.com/blog/research-design

Birader, T. K., & Ozturen, A. (2019). Motivators and Perceptions of Island Residents towards Medical Tourism in Mainland. *Journal of Tourism and Services*, 10 (19): 164-176. https://doi. org/10.29036/jots. v10i19. 99.

Chung, M. (2017). Health Care Reform: Learning From Other Major Health Care Systems. Retrieved from https://pphr.princeton.edu/2017/12/02/unhealthy-health-care-a-cursory-overview-of-major-health-care-systems/

Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches.* Sage Publications.

eggdonationfriends.com. (2021). Retrieved 2 8, 2021, from EggDonationFriends: https://www.eggdonationfriends.com/egg-donation-uk-ivf-donor-egg-guide/

Esiyok, B., Çakar, M., & Kurtulmuşoğlu, F. B. (2017). The effect of cultural distance on medical tourism. *Journal of Destination Marketing & Management*, 6(1), 66-75.

Froyd, J. (2018). *Thailand Registers International Arrival Record Amid Medical Tourism Boom.* Retrieved July 4, 2020, from Tourism Review: www.tourism-review.com/thai-medical-tourism-maintains-its-success-news10621

Gan, L. L., & Frederick, J. R. (2011). Medical tourism facilitators: Patterns of service differentiation. *Journal of Vacation Marketing,* 17(3), 165-183.

Gauldie, R. (2017). The Turkish Republic of Northern Cyprus and its hospital sector. *International Travel and Health Insurance Journal*.

Genower, E. (2017). *Tina Malone shows stomach scars to IVF doctor who helped her conceive daughter*. Retrieved November 12, 2019, from The Sun: www.google.com/amp/s/www.thesun.co.uk/tvandshowbiz/3620037/tina-malone-shows-stomach-scars-to-ivf-doctor-who-helped-her-conceive-daughter/amp/

globalhtc.org. (2019). The GHTC Baku Declaration, 'Health Tourism as an attractive lifestyle choice for all'. . Retrieved November 12, 2019, from Global Health Care Travel Council: www.globalhtc.org/bulletin/3526-the-ghtc-baku-declaration-health-tourism-as-an-attractive-lifestyle-choice-for-all

Gokcekus, L., Toklu, H. Z., Demirdamar, R., & Gumusel, B. (2012). Dispensing practice in the community pharmacies in the Turkish Republic of Northern Cyprus. *International Journal of Clinical Pharmacy, 34*(2), 312-324. doi: 10.1007/s11096-011-9605-z

grandviewresearch.com. (2020). *Medical Tourism Market Size, Share & Trends Analysis Report By Country (Thailand, India, Costa Rica, Mexico, Malaysia, Singapore, Brazil, Colombia, Turkey, Taiwan, South Korea, Spain, Czech Republic), And Segment Forecasts, 2020 - 2027.* Grandview research. Retrieved from https://www.grandviewresearch.com/industry-analysis/medical-tourism-market

Hasan Amca, Y. S. (2019). *Northern Cyprus Economy Competitiveness Report 2018-2019.* Lefkosa: Turkish Cypriot Chamber of Commerce.

Health and Planning Office. (2008). Statistical yearbook of health: Turkish Republic of Northern, Cyprus. Nicosia: State Printing House..

Heung, V. C., Kucukusta, D., & Song, H. (2010). A conceptual model of medical tourism: Implications for future research. *Journal of Travel & Tourism Marketing*, 27(3), 236-251..

Hudson, S., & Li, X. (2012). Domestic medical tourism: A neglected dimension of medical tourism research. *Journal of Hospitality Marketing & Management*, 21(3), 227-246.

Hussain, K., Mothiravally, V., Shahi, M., & Ekiz, E. H. (2012). Strategic analysis of medical tourism: a case study of North Cyprus. JOHAR, 7(2), 25.

IHRC. (2014). *Medical Tourism: Push and Pull factors.* International Healthcare Research Center. Retrieved October 2019, from https://www.healthcareresearchcenter.org/medical-tourism-push-and-pull-factors/

IVF. (2021). What is the cost of Egg Donation in Cyprus? Retrieved 2 8, 2021, from Eurocare IVF: https://www.eurocareivf.com/faq/egg-donation-faqs/what-is-the-cost-of-egg-donation-in-cyprus/

Jarvis, T., Scott, F., El-Jardali, F., & Alvarez, E. (2020). Defining and classifying public health systems: a critical interpretive synthesis. *Health research policy and systems,* 18(1), 1-12.

John, S. P., & Larke, R. (2016). An analysis of push and pull motivators investigated in medical tourism research published from 2000 to 2016. Tourism Review International, 20(2-3), 73-90.

Kelly, T., & Allen, V. (2018). *"'Everything is legal here': British couples are being lured to a lawless 'ghost town' in Northern Cyprus where they can avoid UK law to choose the sex of their baby".* Retrieved April 5, 2020, from Daily Mail: www.dailymail.co.uk/news/article-6250293/amap/British-couples-lured-lawless-ghost-town-choose-sex-baby.html

Khan, U., Chauhan, C., Majeed, J., & Goyal, R. K. (2020). The impact on medical tourism in the times of a pandemic covid-19. *Parishodh Journal, 9* (3).

Lee, M., Han, H., & Lockyer, T. (2012). Medical Tourism: Attractig Japanese tourists for medical tourism experience. *Journal of Travel Tourism Marketing*, 69-86.

Medhekar, A., Wong, H. Y., & Hall, J. (2014). Medical tourism: A conceptual framework for an innovation in global healthcare provision. In Innovations in services marketing and management: Strategies for emerging economies (pp. 148-169). IGI Global. doi:DOI: 10.4018/978-1-4666-4671-1.ch009

Medical Tourism in Turkey. (2020). Retrieved Jauary 2021, from Elcid Tour: https://www.elcidtour.com/medical-tourism-in-turkey/

medicaltourism.com. (2019). *Medical Tourism.* Global HealthCare Resources (Medical Tourism Association). Retrieved from www.medicaltourismassociation.com/en/medical-tourism-faq-s.html

Mestrovic, T. (2018, August). What is medical tourism history? Retrieved From: https://www.news-medical.net/health/What-is-Medical-Tourism.aspx

Mihas, P. (2019). Research and Assessment Methods. *Oxford Research Encyclopaedias*. doi:10.1093/acrefore/9780190264093.013.1195

mordorintelligence.com. (2019). Medical Tourism Market- Growth, Teds and Forecast (2019-2024). (2019). *Mordor Intelligence*. Retrieved from: https://www.mordorintelligence.com/industry-reports/medical-tourism-market

naraveeplasticsurgery.com. (2018). Why Cosmetic Surgery Thailand Is Getting So Popular? - Naravee Aesthetic Clinic. Retrieved August 2, 2021, from Naravee website: https://www.naraveeplasticsurgery.com/en/blog/why-cosmetic-surgery-thailand-getting-so-popular/

NCI. (2015). North Cyprus Medical Tourism, *North Cyprus International*. Retrieved from:

https://northcyprusinternational.com/north-cyprus-medical-tourism/

Osumeje, B. O. (2015). *Medical Tourism Potentials and Prospects: The Case of TRNC.* Eastern Mediterranean University, Tourism Management. Gazimağusa: Eastern Mediterranean University.

Perryer, S. (2019). Turkey's medical tourism industry boosts visitor numbers. *Business Destinations*.

Pickert, K. (2008). A Brief History of Medical Tourism. Retrieved August 1, 2021, from *TIME*: http://content.time.com/time/health/article/0,8599,1861919,00.html#:~:text=People%20have%20been%20traveling%20for,is%20a%20fairly%20modern%20phenomenon.

Rahmioglu, N., Naci, H., & Cylus, J. (2012). Improving health care services in Northern Cyprus: a call for research and action. *European Journal of Public Health, 22* (6), 754-755. doi:http://doi.org/10.1093/eurpub/cks145

Ramamonjiarivelo, Z., Martin, D. S., & Martin, W. S. (2015). The determinants of medical tourism intentions: Applying the theory of planned behavior. Health marketing quarterly, 32(2), 165-179.

Rogers, K. (2011). Medical Tourism. *Encyclopaedia Britannica*.

Savaşan, A., Yalvaç, M., Uzunboylu, H., & Tuncel, E. (2018). The attitudes of education, tourism and health sector managers in Northern Cyprus towards Education on Health Tourism. *Quality & Quantity,* 52(1), 285-303.

Security, T. R. (2019). Retrieved December 21, 2020, from Çalışma Ve Sosyal Güvenlik Bakanlığı: https://csgb.gov.ct.tr/en-us/Minimum-Wage

Singh, L. (2019). Medical Tourism Motivations: The Driving force. *Journal of multidisciplinary academic tourism, , 4(2), 77-86. https://doi.org/10.31822/jomat.621874*

State Planning Organization. (2018). *Sectoral Developments in Gross National Product.* Turkish Republic of North Cyprus: State Planning Organization.

Stevens, F. C. J., Kroneman, M. W., & van der Zee, J. (2017). Health-Care Delivery Systems (S. R. B. T.-I. E. of P. H. (Second E. Quah, Ed.). Oxford: Academic Press.

Sultana, A. H. (2014). Factors affecting the attractiveness of medical tourism destination: an empirical study on India- Review Article. *Iranian Journal of Public Health*, 867-876.

Taşiran, A. C., & Özoğlu, B. (2017). Northern Cyprus economy competitiveness report 2016-2017. Lefkoşa, Northern Cyprus: Cypriot Chamber of Commerce. Retrieved August 1, 2021 https://www.ktto.net/wp-content/uploads/2017/03/KTTO2016-2017-eng.pdf

Thasariya, S. (2019). *popular plastic surgery prices in UK: How much does it cost in the United Kingdom*. Retrieved December 7, 2020, from ehealthcare cost.

The History of Medical Tourism. (2019). *Health Tourism*. Retrieved from www.health-tourism.com/medical-tourism/history/

Todd, M. (2020). *30 Key Findings from Medical Tourism Benchmarking Research*. Retrieved December 20, 2020, from Mercury Advisory Group: https://mercuryadvisorygroup.com/30-key-findings-from-medical-tourism-benchmarking-research/

TRNC Public Information Office. (2020). Retrieved from TRNC Public Information Office: pio.mfa.gov.ct.tr

T-VINE. (2017). *North Cyprus on the world health tourism map*. Retrieved September 2, 2019, from T-VINE: www.t-vine.com/north-cyprus-on-the-world-health-tourism-map/

Walker, J. R., & Walker, J. T. (2011). Tourism: concepts and practices. *Pearson Education*, 43.

Walton, J. K. (2012). Tourism. *Britannica*. Retrieved from: https://www.britannica.com/topic/tourism

whatclinic.com. (2019). Cosmetic Surgery Cyprus, Retrieved December 9, 2020, from What Clinic: https://www.whatclinic.com/cosmetic-plastic-surgery/cyprus/nicosia/cosmetic-surgery-cyprus

Whittaker, A., Manderson, L., & Cartwright, E. (2010). Patients without borders: understanding medical travel. Medical Anthropology, 29(4), 336-343.doi:www.doi.org/10.1080/01459740.2010.501318

WHO. (2010). *Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies.* Geneva: WHO.

Why did North Cyprus Tourism Increase? (2019, October 7). Retrieved November 11, 2019, from North Cyprus International: www.northcyprusinternational.com/north-cyprus-tourism-increase/

Wiki Travel: Northern Cyprus. (2019). Retrieved from Wiki Travel: www.wikitravel.org/en/Northern_Cyprus

Youngman, I. (2020, June 23). If cheap air fares are no more, what of medical travel? *International Medical Travel Journal*. Retrieved July 20, 2020, from https://www.imtj.com/articles/if-cheap-air-fares-are-no-more-what-medical-travel/

Journal of multidisciplinary academic tourism
2022, 7 (1): 1-18
https://doi.org/10.31822/jomat.2022-7-1-1

ISSN: 2645-9078

INFO PAGE

Medical Tourism in the Turkish Republic of Northern Cyprus: Strategies for Improvement

Abstract

"Right to health" is a fundamental human right and it is protected by international laws, also it turns over to states in three areas. Quality health care, affordability and the availability of necessary facilities and equipment's form part of the reasons why individuals in need of these services migrate to countries that fortunately have upgraded facilities ready to serve the needs of patients worldwide. The purpose of this study is to examine the perceptions of health practitioners, tourist agents (travel agents) and hotel managers, to determine if they are aware of the present condition of medical tourism in North Cyprus, and to discover the most sought-after procedure in the country. Thereafter the status of the most sought-after procedure was analyzed and strategies for improving this sub-sector alongside medical tourism were proposed. The study aims to provide insight for stakeholders, administrators and public officials in designing their strategies for improving this sub-sector of tourism, and to highlight the contribution of medical tourism to the development of the Turkish Republic of North Cyprus. The study is based on surveys given to participants selected by a snowball sampling and convenience sampling technique. Collected data were analyzed using basic coding methods of qualitative analysis. Results from the first part of the study revealed that the most sought-after medical procedures in TRNC were invitro fertilization treatments, and in the latter part of the study, the push-pull motivators and status quo of this sector were determined

Keywords: *Medical Tourism, Northern Cyprus, Quality Health care, Medical Tourism in Northern Cyprus, TRNC Tourism, Fertility Tourism, Medical Tourism for In Vitro Fertilization*

Authors

Full Name	Author contribution roles	Contribution rate
Oritsetimeyin Victoria Arueyingho:	*Conceptualization, Methodology, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing,*	*60%*
Matina Ghasemi:	*Writing - Review & Editing, Supervision,*	*20%*
Tulin Bodamyali:	*Writing - Review & Editing, Supervision,*	*20%*

Author statement: *Author(s) declare(s) that All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.* ***Declaration of Conflicting Interests:*** *The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article*

Ethics Committee Satatement: Ethics committee report is available for this research and it has been documented to the journal.

Ethics committee: *Girne American University Head of Department of Business Managemet*

Date of ethics committee decision: *22.03.2021*

Ethics committee decision number: -

Jomat
Journal of multidisciplinary academic tourism
2022, 7 (1): 19-29
www.jomat.org
ISSN: 2645-9078

The *Rota das Emoções* in the touristic context of Northeast region of Brazil

*Simone Cristina Putrick, André Riani Costa Perinotto**

ABSTRACT

The objective is to analyze the importance of the Rota das Emoções in the development of Piauí's territory. Piauí is studied in the context of the Northeast of Brazil, geographical space of Piauí and public tourism policies, with a focus on the Programa de Regionalização do Turismo (Tourism Regionalization Program) that suggests itineraries with the emergence of the Rota das Emoções (Route of Emotions), a regional route that comprises the Brazilian states of Piauí, Ceará and Maranhão. The relevance is given by the significant growth acquired by tourism in contemporary society. Governmental actions that promote territorial tourism diffusion are examined in Brazil, especially in Piauí. Private policies that regulate and establish tourist services that generate formal and informal jobs and trigger transformations with a multiplier effect. However, infrastructural transformations do not meet social objectives, directed to the market and to people's well-being.

Keywords:
Public policies,
Tourism,
Rota das Emoções (Route of Emotions),
Northeast of Brazil.

Article History:
Submitted: 14.02.2021
Accepted: 20.08.2021

Doi: https://doi.org/10.31822/jomat.2022-7-1-19

1. Introduction

This paper aims to investigate *Rota das Emoções* (the Route of Emotions) as a proposal for the socioeconomic development of the State of Piauí, based on Public Tourism Policies with a focus on the Tourism Regionalization Program, working on the territorial concept of tourism. It has the Northeast of Brazil as a context for analyzing tourism correlations with economic, social, political and geographical realities. This research is based on the type of principle of the gap in studies that understand the public policies that are behind the creation and maintenance of this route, it is expected that this article fills such questions in the literature so that the applicability of public policies for tourism in the region of fact come true.

The state of Piauí is one of the nine in the Northeast Region of Brazil. It has a history of political, administrative, economic, and commercial dependence, considered a marginal space for a long time, due to the situation of economic backwardness in relation to the other northeastern states, despite having a natural and cultural potential. For a long time, the formulation of public development policies is neglected in the national development project, with no transfer of federal resources to that State. The territory is part of the poorest region in Brazil.

In the 2004, public and private policies implemented *A Rota das Emoções*, an integrated tourist itinerary, formed by the states of Ceará, Piauí and Maranhão, passing through fourteen cities. The implementation of *A Rota* takes place with the economic and political restructuring of tourist activity in Brazil, by the Ministry of Tourism (MTur) with the *Programa de Regionalização do Turismo* (Tourism Regionalization Program) - *Roteiros do Brasil* (Tours of Brazil) - for the development of tourist activity, in the national territory, adopting the concept of tourist region to decentralize and diversify tourism products.

Brazilian Ministry of Tourism proposes tourist routing by creating routes for the union of dispersed tourist attractions, to organize and integrate the tourist offer in the country, and also to connect places with tourist potential, by offering profitable and commercially viable products. Thus, *Rota das Emoções* is installed, and it passes through three Conservation Units: *Parque Nacional de Jericoacoara* (Jericoacoara National

**Corresponding Author*
Review paper
Simone Cristina Putrick: *Prof. Dr., Parnaiba Delta Federal University, Avenida São Sebastião, 2819, CEP: 64202020, Reis Veloso, Parnaíba, Piauí, Brazil, Email: sputrick4@gmail.com, Orcid Id: 0000-0003-0891-7481*
André Riani Costa Perinotto: *Prof. Dr., Parnaiba Delta Federal University, Avenida São Sebastião, 2819, CEP: 64202020, Reis Veloso, Parnaíba, Piauí, Brazil, Email: perinotto@ufpi.edu.br, Orcid Id: 0000-0001-7094-3758*

Park), *Parque Nacional dos Lençóis Maranhenses* (Lençóis Maranhenses National Park) and *Área de Proteção Ambiental do Delta do Parnaíba* (Environmental Protection Area of the Parnaíba Delta) geographically close, suggesting complementation. *Rota* offers attractions in the segments of sun and beach tourism, adventure and ecotourism.

Political speeches, seeking to attract investments, through marketing, transform the image of the poor state into a tourist place full of natural attractions, however, not enough to end up poverty. The disordered occupation of the territory and the disarticulation of political, economic, and cultural factors aggravated by the concentration of income and power, intensify the picture of poverty (Andrade, 2005). So, capital, technical and technological limitations in the semi-arid region, together with the political backwardness, are responsible for maintaining the dominance and power of the oligarchies in the northeastern states, especially in Piauí (Araújo, 2013).

Governmental programs for the development of tourism, in different spheres, are now allocated in the Northeast Region. The activity gains economic relevance, in the formation of the positive image of the Brazilian Northeast. The possibility of exploring coastal landscapes induces the development of economic development policies and promotes the restructuring of the real estate market. The northeastern coast is converted into a tourist region with the adoption of development policies, with marketing strategies that value the shore (Dantas, Ferreira, & Clementino, 2010). The transformation in this geosystem causes changes of both territorial and economic nature via tourism that emerges as an economic vector of the Northeast, which is evidenced by the volume of investments applied in tourism activity.

The Northeast Region structured in tourist hubs, concentrated in the coastal zone, where the beach, the sun and the sea become important variables for attracting tourists and moving businesses. In spite of this dynamic, Piauí remains poor and forgotten, so the objective of the text is to analyze the importance of *A Rota das Emoções* in the development of the State. The geographical delimitation of the study area comprises the cities of Parnaíba, Luís Correia, Cajueiro da Praia and Ilha Grande, all of them in the State of Piauí, belonging to *Rota das Emoções*, from 2004 to 2019.

2. Methodological Approach

Content analysis is the basis of analysis and investigation in the search for a deeper understanding of the conception of critical and constructivist debate, as it presents a reality that is full of conflicts and contradictions (Triviños, 1987). Content analysis represents a technique for analyzing communications, with systematic procedures for describing the content of messages with knowledge of variable indicators (Bardin, 1977). Content analysis provides sufficient techniques to arrive at the true meaning of the message. Bardin (1977) says that this analysis is suitable for studying "*de motivações, atitudes, valores, crenças, tendências*" (motivations, attitudes, values, beliefs, trends). Researchers necessarily identify ideologies contained in legal provisions, guidelines, principles that, in the simple scenario, do not present themselves clearly (Triviños, 1987). Thus, content analysis projects the reality presented in the territory contextualized in the research. Direct observation is a technique that elects representatives of public and private entities from the four municipalities of Piauí to access information generated by documents, articles, and projects in the study region.

For access to information, active projects, as well as conversations, direct observation is a technique that elects representatives of public and private entities from the four municipalities of Piauí, to capture maximum variation as well as a strategy for sampling and deepening issues relevant to Piauí. *Rota das Emoções* covered with advance determination of criteria about places and participants offers a greater view of the object investigated (Creswell, 2014) and issues raised. Systematic searches for relevant documents helped to understand the facts. The research was institutional and field search.

3. Public, Private and Alternative Policies

Public policies are ways of acting by the State focused on meeting the needs in order to offer dignified living conditions to citizens. Guaranteed not only by the State, but also by the executive bodies, they seek to ensure social rights for citizens. One of the main powers of the State is the police presented in the different regimes (liberal, orthodox), as a mediator of relations (Pereira, 2013). There are elements that are interconnected and compose the State, forming the:

> *A set of institutions and prerogatives, highlighting the coercive power, delegated by the Society; the territory, understood as a*

> *geographically limited space where state power is exercised; a bureaucratic machine capable of administering government institutions and policies, collecting and managing resources; and a set of general conducts and behaviors that, regulated by the bureaucratic machine, help to create and maintain a common political culture, thus forming a nation* (Souza Neto, 2018, pp. 95).

In a process full of contradictions in the relationship between civil society and corporate groups, because in the liberal-democratic State there are basic contradictions in the State-society relationship in the development of the forms of articulation of civil society and the functioning of the democratic mechanisms that legitimize the functions of the State. Meanwhile, the contemporary demands of overly complex social and economic structures expand the functions of the state. It is basically this contradiction that moves the liberal-democratic state (Costa, 2008, pp. 279)[1].

The modern state has its origin in the 15th century, after the dissolution of empires and the end of the Church's domination, with changes in space and time. It is a politically, socially and legally organized institution. Sovereignly recognized, with no other authority in the territory that exercises this power, governed by the maximum law, the Constitution, with defined territory, a clear distinction between State and civil society, with explicit transience of government control in democracy (Bobbio, 2000). The landmark of the bourgeois expansion and the dissolution of the nobility occurs in the French Revolution. Trade becomes the driving force for development, an interest of the bourgeoisie, which establishes itself as a ruling class. The State exercises the infrastructure relationship, with the capacity to enter civil society, implementing political decisions throughout the domain (Mann, 1992). The way to enter society takes place in a regulatory manner, created and given by civil society itself.

So, the State tries, for its autonomy, to answer questions of minorities as the elite that looks for transformations, for which they cause elaborate actions that, many times, constitute public policies (Evans, 2004). Muller (2000) says that the policy takes place with plans, programs and projects in sectors of society and / or in regions and is based on a set of concrete measures. Streamline the territory, implement production. With territorial policies, it establishes new forms of production, which contribute to economic and social development or disagree with reality.

For the author, resource allocation decisions and State decisions are often made in an authoritarian manner. The State allocates resources according to interests, in a coercive way, to serve interests, especially companies. As much as there is popular pressure or social longing, social movements often break down, and changes occur as decided by the public sphere. Another view, the policy is placed in a framework of actions whose measure is isolated. In Costa's view (2008), public policy has functions and rules. Hall shows the 1950s Anglo-Saxon view of politics by saying:

> *It is a political activity influenced by the economic, social and cultural characteristics of society, as well as by formal government structures and other aspects of the political system. Politics reveals values and ideologies, power distribution, institutional structures and decision-making processes (Hall, 2001, pp. 26).*

What differentiates European currents from Anglo-Saxon is the way in which the State was constituted for the currents and which social relations are considered and the weight they have. In the Anglo-Saxon current, public policy is what the State does, based on the minimum State, that is, the actions are aimed at the market. It is not the government's job to maintain basic needs, but companies. The Government's problems are the central issue of theories and political analysis.

In the European current, the State dominates society and shapes it. In the European perspective, the form of the State is to regulate social and class conflicts. For Muller (2000), the Government is the fusion that controls for some time: State is a bureaucratic mechanism. With the 1988 Constitution, there was a tendency to decentralize power over the public sphere, with the inclusion of civil society, educational institutions, and NGOs in the process of elaborating and implementing public policies.

The challenges for the regional roadmaps relate to an exercise in rethinking the complex information management system that allows, from existing sources and data collection, to obtain useful information for strategic decision-making by the government, managers and entrepreneurs. In this sense, the availability of local data allows the

[1] *Free translation: meanwhile, the contemporary demands of highly complex social and economic structures expand the functions of the State. It is basically this contradiction that moves the liberal-democratic State.*

tourism sectors to better plan their investments, knowing the real demand and not just based on national averages that do not necessarily refer to the local reality. The development of smart tourism public policy requires the articulate participation of all relevant stakeholders, as well as strong political leadership to achieve broad collaboration and consensus (Alvares, Santos & Perinotto, 2020).

The process takes place with the formation of forums, and thematic chambers made up of residents, businessmen, scholars, and representatives of the State. In these spaces, there is an attempt to expose, debate and reach consensus on the best to do for society. Policies against neoliberalism have human emancipation as their main elements, and work is a condition for survival and well-being. In tourism, this happens in community tourism, in which communities have production related to the primary sector. They present visitors with social relations, ways of working and tourist attractions of the place. Anti-hegemonic policies are opposed to the dominant process, with a view to a just, egalitarian and less competitive society. For Vieira, Putrick and Cury (2014, pp. 451):

Tourism is an activity capable of generating growth for places that make the practice of the activity viable, consequently promoting regional development. Depending on the context in which it is inserted, the term has a scope relevant to definitions and models.

> *The concept of development usually refers to progress, growth, especially regarding the economic situation. Cavalcanti (2003, pp. 26) explanes that [...] Efforts have been made in most countries of the world to provide economic development, which is considered [...] synonymous with economic growth [2]. Under this assumption, development is linked to the idea of freedom, when considering people's needs, and conditions that make them independent. Thus, for development to happen, the powers (public and private) work in partnership to implement development strategies. In tourism, among the development strategies are alternative policies that seek development, preservation of natural and architectural beauty. Tourism, as an alternative policy, is an opportunity to value and rescue traditions, folklore, cuisine, legends, stories. The elements of collective memory contribute to the strengthening of people's emotional bonds with the place. Issues like these are deepened in the community tourism debate One in which communities in an associative manner organize local productive arrangements, having effective control of land and economic activities associated with the exploitation of tourism. One of the first actions is to draw up an internal pact with all residents in defense of their properties. Everyone is committed to preserving the place, not getting rid of it, and those who really need to sell the house submit the business to the community, which analyzes who the buyer is, sees if it can be a partner, and how it can be partnership made (Coriolano, 2006, pp. 201) [3].*

Public tourism policies are a fissure of the State in the territory, with the premise of improving access to basic services for citizens and businesses. Private business policies fill gaps left by the State, in many cases, as a model of socio-environmental responsibility. They seek profits with increased consumption of services, with the inclusion of differentiated elements. Alternative policies developed in communities whose principles are linked to community well-being.

Public tourism policies of the municipalities of Rota das Emotions are analyzed in order to understand the conditions of expansion of tourist activity in Piauí, which uses changes in the political-economic organization. With the power of the business community, a new composition is made, in which the State and private initiative act in favor of tourism.

4. Public Tourism Policies in the Northeast

Tourism contributes to the composition of forces on scales ranging from global to local. Sun and beach tourism is the highlight of tourist demand. However, other segments such as religious tourism, events, rural tourism, have increased demand in recent years. According to Silva and Santos (2014, pp. 5) in the case of segments: nature tourism gain space among a group of people interested in getting to know certain places where nature is preserved and (or) preserved [4].

---

[2] *Free translation: from the 1930s onwards, [...] efforts were sent in most countries in the world to provide economic development, considered [...] to be synonymous with economic growth.*

[3] *Free translation: One in which the communities in an associative way organize the local productive arrangements, having the effective control of the lands and the economic activities associated with the exploration of tourism. One of the first actions is to draw up an internal pact with all residents in defense of their properties. Everyone is committed to the preservation of the place, not getting rid of it, and those who really need to sell the house, submit the business for the appreciation of the community, which analyzes who the buyer is, verifies if it can be a partner, and how it can be the partnership was made.*

[4] *Free translation: in the particular case of segments: nature tourism gains space among a group of people interested in knowing certain places, in which nature is*

Following the global trend, tourism is included in the political and economic discussion agenda. The State considers strategic tourism policy as an economic activity, capable of generating foreign exchange, growth and economic development, through the restructuring of territories and the consumption of spaces. Natural beauties, history and culture can attract tourists, to contribute to the strengthening, dynamization and insertion of places in the globalized market (Coriolano & Fernandes, 2005). In Brazil, the Ministry of Tourism recognizes the need for tourism to be included in strategic business agendas and develop public-private partnerships for tourism (Brasil, 2015).

The basic urban infrastructure that is essential to the resident's life serves to support the tourists who enjoy it, prepared based on public policies. The infrastructure attracts tourists, and organizes the space for setting up chains of restaurants, resorts, hotels. Tax benefits are among the state's strategies for attracting ventures to territories. With profit generated by the ventures, public policies, tourism marketing, mobilization of tourists, in some cases, communities, tourist territories are formed and consolidated (Putrick, 2019).

However, it is necessary to recognize the capacity of tourism to project transformations of territories, without a panacea to solve all the problems arising from a development model centered on the economy. Tourism development does not mean development, since no sectoral economic activity ensures global development that encompasses all dimensions of social life (Cruz, 1999).

Tourism continues to demonstrate the key role in generating economic activity. The European continent is the most sought after by tourists from all over the world (51.8%) The main countries receiving tourists are France, the United States, China, Germany, the United Kingdom, Africa, and Russia in 2017. According to the World Tourism Organization in 2017, 1.3 billion tourists traveled the world. In relation to 2010, there was an increase of 7%. The number of visitors rose 84 million and international tourism revenues rose 5% (UN, 2017).

In 2017, exports generated by tourism reached US $ 1.6 trillion (UN, 2017). So, tourism is the third largest export activity worldwide, with US $ 4 billion per day. In the same year, Brazil had about 6.5 million visitors (UN, 2017). Revenues from tourism increased by 3.8% in the last seven years

In the list of 136 countries ranked according to the competitive potential of the various travel and tourism services, Brazil ranks 27th (World Economic Forum, 2017). Among the countries of South America, Brazil is the first on the list, leader of the world ranking of natural resources. The evolution of the country's rank, in the report, is expressive: in the 2013 edition of the Travel & Tourism Competitiveness Report, Brazil occupies the 51st position.

In South American countries, as well as in Brazil, tourism is a relevant activity in the economic sector. According to information from the Ministry of Tourism, in the document entitled *Estatísticas Básicas de Turismo Brasil* (Basic Statistics of Tourism Brazil) - Base year 2015, there was an increase in activities related to tourism according to available data (Brasil, 2015).

The Northeastern macro-region of Brazil has broad potential for development in the field of tourism. The coast is a major recipient of tourism investments. The states of the region have great potential or tourist vocation, given the many attractions.

Northeastern territories, transformed into tourist destinations, have international and national recognition. The process results from actions, relationships and endogenous and exogenous factors, whose centrality of interests is antagonistic to that of residents (Cruz, 1999). Thus, hegemonic actions are exercised by groups outside the communities. Since tourism it is a geopolitical activity, it is not restricted to local interests.

The activity is made up of a large contingent of people to work in the services. The workforce in the Northeast is not fully trained. The conventional tourism organizational model, adopted by investors, caters to international and national tourists. Tourist spaces have been expanded with highways, facilitating travel and expanding tourist services. Tourism has been reconfigured to serve the tourist who visits the region, but in tourist areas, there is a lack of specialized services, which causes dissatisfaction and delay in the region (Putrick, 2019).

Tourism is planned, under the discourse of social improvements, expansion of jobs linked to the activity. With the internet, tourists see the place

[4] *Free translation: in the particular case of segments: nature tourism gains space among a group of people interested in knowing certain places, in which nature is conserved and (or) preserved*

before visiting, but the media presents only spectacular spaces. In them, modern services of assistance to luxury tourism and communities are dependent on welfare policies, cistern projects or water supply by water trucks (Andrade, 2005).

The rural space has also undergone significant changes. From modernization, irrigated agriculture, expansion of soy cultivation by Bahia, Maranhão and Piauí; cattle ranching and the production of the timber industries cause deforestation and desertification. From the productive rural restructuring, there is a reduction in planting and harvesting time, quantitative expansion of products and increased profits (Elias, 2005). Contrary to the process, the disqualified workforce must migrate from the countryside to big cities, mainly to capitals, in search of work and conditions for survival.

Environmental problems, discontinuities and heterogeneities are common in the urbanization process of cities. Situations such as valuing spaces at the expense of others, denote contradiction in space and society. During spatial conflicts, medium-sized cities are formed (Putrick, 2019).

The coast plays an important role in the touristization of cities, being a tourist attractiveness. The formation of cities occurs through the configuration of networks, with the leakage and flow of people, capital, and goods. The coastal space is commercialized in capitalist relations of production, in which spaces, natural and cultural beauties become marketable products.

Spaces are competitive, with territories valued and selected by the capital. Yet others are neglected, uninteresting to investors, territories considered opaque. The representativeness of the dialectic relationship of the territory used is neglected territory. So, relations of production and reproduction of the territorial relationship regulated by globalized money and tourist spaces that expand the power of specific groups and territories are constituted.

In tourism, selected areas receive economic benefits from investment and financing from public-private partnerships, between the State and investors. Yázigi (2009) recommends that Brazil prioritize itself, its culture, identity and organization of the territory, so that subsequently it could meet the requirements of the tourist activity. The organization of the territory is fundamental for tourism and indispensable to the common inhabitant. It is not just an organization, but a procedure that requires politics, responsibility and the involvement of society.

The State of Piauí is one of the nine in the Northeast Region of Brazil, with a population of around 3,264,531 inhabitants occupying an area of 251,529,186 km², distributed in 227 municipalities (IBGE, 2018). It presents geographical limits to the north with the Atlantic Ocean, to the east with Maranhão, to the west with Ceará and Pernambuco, and to the south with Bahia and Tocantins.

Basic needs issues such as: health, housing, education, tourism drive political planning and transformation of territories. However, political and economic crises, in the national context, raise issues about the efficiency of management, public policies, the credibility of institutions, transparency in public spending and in the State. Through planning, the State has an influence on the production and decision process in the territories. From the application of public policies, it attracts public and private investments, orders the territory in the development of activities such as tourism.

Piauí contributes with 0.7% of trips made in Brazil, the seventh lowest tourist emitter, among all the Federation Units. In terms of generating tourist revenue, its share is 0.8% of the country's total.

The highest percentage of tourists comes from the state itself, as well as the highest revenue generated is by tourists from Piauí. In the *Documento de Caracterização e Dimensionamento do Turismo Doméstico no Brasil* (Domestic Tourism Characterization and Dimensioning Document in Brazil), referring to 2014, the volume of domestic tourism consisted of 1,154,000 trips (Brasil, 2014). Piauí receives the smallest number of domestic trips in the Northeast (1,157,000), including trips having their origin and destination in the state itself. In this sense, in economic terms, these data are alarming and worrying, which demonstrates the importance of working the *Rota das Emoções*, which has a huge potential to receive and attract tourists from around the world to increase these data.

The landscapes rich coastline has been strategic for the development of tourism, however an area of extreme vulnerability. Because it is a differentiated space, the state invests in infrastructure.

The coast of the State has tourist attractions, landscape heritage, lakes, ponds. On the coast there is a concentration of people, services and goods articulated in business and this intense occupation is called coastalization (Souza Neto, 2018, pp. 49) which is the expression of urbanization in coastal areas, mostly areas not intended for residents but for tourists [5].

Tourist attractions, tourist equipment and services from the means of accommodation, food services, tourist guides, entertainment spaces and support infrastructure make tourism materialize in a tourist place, which is the position of production and consumption of the product, due to the dynamics of tourist activity (Fratucci, 2000).

The *Rota das Emoções* is the tourist itinerary of the Northeast, which goes beyond state geopolitical limits, integrating the states of Ceará, Piauí and Maranhão. It is inserted in the Tourist Region of the Mid-North, in the coastal strip that comprises the extreme west of Ceará, north of Piauí and northwest of Maranhão.

By the motivation of sun and beach tourism, ecotourism, sports and adventure tourism, the *Rota das Emoções* runs through three states and fourteen cities: Araiosés, Barreirinhas, Paulino Neves, Santo Amaro and Tutoia, in Maranhão; Cajueiro da Praia, Ilha Grande, Luis Correia and Paranaíba, in Piauí; Barroquinha, Camocim, Chaval, Cruz and Jijoca de Jericoacoara, Ceará - besides institutions, associations, private agents and management bodies of three conservation units. The route reaches almost 1,200 km, between Fortaleza and São Luis, the main entrance gates in the route. The territory of coverage and distance, between the destinations of the *Rota das Emoções*, are represented schematically (figure 2).

It owes credit to the contribution of the tourist activity, in offering regional development to the reduction of regional inequalities, a discourse used in the national media. Under this pretext, governments invest in tourism, in the quality of socioeconomic development, believing in the power to collect taxes, fees and capital accumulation from the private sector (Coriolano, 2009).

It is important to recognize, however, that although tourism generates employment and contributes significantly to economic growth, it is not an automatic formula for poverty reduction. Tourism impacts on people affected by poverty: income generation; development of local / rural economies and people's livelihoods; it impacts on the natural and cultural environment in which they live (Putrick, 2019).

The *Rota das Emoções*, considered by the Ministry of Tourism as the best route in Brazil in 2009, competes with 90 routes. Launched by the Tourism Regionalization Program in 2004, the *Rota das Emoções*, in Piauí, was called *Delta Selvagem* (Wild Delta), and environmental education and community-based tourism development projects with professional qualification are planned.

The *Rota* appears as a strategy for the development of marginal areas, with less structured tourism products. Governments do not invest in infrastructure, in marginal areas, as basic needs such as road, water, electricity are prioritized. The private sector does not assume the investment burden that the authorities must provide. So, private investment remains in concentrated areas (Oppermann & Brewer, 1996).

In Brazil, especially in the Northeast Region, investments in infrastructure have largely been directed to the capitals and centers that receive tourism. Nevertheless, the dispersion of tourists is important with the creation of new attractions since they diversify the tourist product. Besides, it expands the tourist's stay. In this way, they can offer opportunities for economic benefits (Putrick, 2019).

The development of the *Rota das Emoções* has an emphasis on the proposal to link and develop communities. The Structuring and implementation of routes can be developed by the public and private sectors, to increase the attractiveness of the area and the tourist product with the objective of generating income. In some cases, the *Rota* is not focused on community development. However, evolution broadens the focus, as it combines the development of a successful route with the expansion of connections with residents (Meyer, 2004).

The Structure and implementation of the *Rota das Emoções* is implemented by the public sector. The *Rota*'s theme is not strong, it is not consolidated, and it does not go through any specific theme. The tourist activity develops in seasonal periods that include the period of school holidays, winter in the northern hemisphere and long-term holidays, which generates seasonal employment.

The product sold by the agents who sell the *Rota das Emoções* is uniform, turning Jericoacoara,

[5] *Free translation: the expression of urbanization in coastal areas, most of which are areas not intended for residents and yes to the tourist.*

Delta do Parnaíba and *Parque dos Lençóis Maranhenses* the main attractions. It can be said that the *Rota das Emoções* aims to commercialize the main product, not being an opportunity to diversify it.

The main strategy for the development of the *Rota* is to form cooperative networks, with the purpose of offering diversified tourism. For its structuring, implementation, and maintenance, in each region, it is necessary to build and maintain collaboration between the State, private company, public institution, local council, association and community (Meyer, 2004). The arrangements can be formal or informal, between attraction owners, operators, and the food industry, with horizontal and vertical network links.

Cooperation is an element of structuring the *Rota*, in contrast, competition between suppliers and tourist attractions. World-class tourism planners and operators have presented collaborative models, as capable of expanding the benefits of tourism (Selin, 1993; Crotts, Aziz, & Raschid, 1998). However, in the tourist activity of *Rota das Emoções*, collaboration and partnership are far from becoming a reality. Collaborative networks have not been formed, tourism is characterized by the infinity of small-scale businesses with highly diverse, common, and often competing operational practices and objectives (Putrick, 2019).

SEBRAE acts as an articulating body to promote entrepreneurship, in addition to guiding and promoting the destination of national and international markets, Sebrae's interlocutor affirms. However, it is known that the *Serviço Brasileiro de Apoio à Micro e Pequenas empresas* [6] (SEBRAE) is not responsible for development and structuring actions in the municipalities of *Rota das Emoções*. This role belongs to *Agência de Desenvolvimento Regional Sustentável* [7] (ADRS), a consortium formed by the states of Piauí, Ceará and Maranhão, created in 2006. The consortium develops integrated actions, planning and structure of the *Rota das Emoções*.

Collaborative networks, on routes, have been established because of the number of key individuals who act as a driving force and leaders (Meyer, 2004). The key individuals of the *Rota das Emoções* are no exception to the rule of collaborative networks. They are SEBRAE, businessmen, and representatives of the municipal departments of tourism, who work in a certain period of the structuring and implementation of the *Rota das Emoções*, but the replacement of representatives, due to the political issue, contributes to the discontinuity of the work.

The municipalities of Parnaíba, Luis Correia, Ilha Grande and Cajueiro da Praia have a Municipal Tourism Council, as governance instances, to comply with the legislation and keep the municipality able to receive federal funds. They are not involved in projects and programs that benefit the tourist activity of the municipalities.

Nevertheless, states and municipalities do not work together in the planning and implementation of cultural calendars, itineraries of regional circuits, marketing campaigns, and in the identification and treatment of issues related to tourism. The lack of regional collaboration reduces the political and economic capacity to deal with external public and private forces.

The elements for structuring the *Rota* are the development of innovative products, infrastructure, and access (Meyer, 2004). The structuring and implementation are dispersion strategies in tourism. They have become successful examples, linked to tourism, with an increase in the holiday period, means of transportation, search for cultural experiences, short day trips.

The production factors of the *Rota das Emoções* are based on natural and cultural attractions, with its diversity of natural resources, main attractions materialized in original landscapes, biological diversity, and the presence of endemic species. The routes establish a guidance system for travelers, although many are also visited by organized tours. It is a criterion that the product meets the needs of an untapped market for tourist sources, that is, an important asset of ecotourism, community tourism, cultural heritage, growth in tourism revenue, instead of just entering existing markets.

The concentration of visitors, on the *Rota das Emoções*, occurs in places where the main attractions are. The community must travel to the main attractions, or they are excluded from the process. No tourist inventory was carried out in any of the cities belonging to it. There is no mapping of craft points, mainly, there is no road connection between cities. The agencies do not argue, they do not have a clear vision of where they want to go. The main issues are a lack of financial resources and an inability to delegate responsibility; unfamiliar concepts of spatial

[6] *Free translation: Brazilian support service for micro and small companies.*
[7] *Free translation: Regional Sustainable Development Agency.*

planning and formulation of regional strategies for development plans; lack of clarity of the role played by institutional representatives of tourism, at the federal, state, and municipal levels.

Infrastructure availability is a fundamental aspect of the development of the *Rota*. It means that the basic road or trail network must have a pattern that attracts and satisfies potential visitors. The *Rota* usually passes through secondary roads that offer a relaxed pace of travel. The road network is made up of landscape routes, which increases the tourist appeal, and makes the tourist choose it, as opposed to fast highways. Traveling along routes is an important product. The route needs to be chosen and designed on the attractive landscape. The landscape value is important for tourists (Meyer, 2004). For any route, infrastructure is crucial. This includes basic infrastructure, signage, rest area and sanitation.

> *In Rota das Emoções, the accommodation facilities are mostly in Parnaíba. According to Silva (2013, pp. 118), the coast of Piauí constitutes a functional territorial unit, in which the city of Parnaíba plays the role of the main support center for the realization of social, economic and service activities throughout this region.*

Tourism activity is dependent on the hospitality of hosts, so community participation, in product development and decision making, is essential (Meyer, 2004), and occurs on scales, from passing on information, consultation and decision-making power. Entrepreneurship is necessary for tourism. Thus, the opening of new companies is necessary. Creating links, in many cases, is an initiative of external agencies, of public and private order. Achieving the financial sustainability of business ventures is one of the main factors of analysis. In some regions, there is a need for investment in basic infrastructure and facilities in marginal rural areas, in comparison to established tourist areas.

5. Closing Comments

The *Rota das Emoções* is an example that the lack of collaborative organization has been an obstacle to the integrated and coordinated development of tourism. Tourism organizations have little or no synergy. The lack of clarity regarding roles and responsibilities leads to duplication of development plans and a lack of integration. Without collaboration, it is difficult for those responsible for the institutions to know who to turn to in order to format the development proposal, single or integrated. This occurs at the state level and, in the case of Piauí, at the municipal level, due to the lack of global coordinating authority for the planning application process. Therefore, communities are unable to organize themselves in such a way that they cannot be contacted and communicated.

While the governments of the states do not take responsibility for the development of tourism, in the *Rota das Emoções*, it is possible to feel the inability of public intuitions to do so. Lack of authority, understanding and the ability to develop tourism were common criticisms during the research.

The route should be better delineated as a regional route, with intra-state and federal-state articulation in Brazil. Demand surveys are essential to understand how social, economic and tourist relations occur in the Rota region.

Tourism as a public policy has brought about minimal changes in the spatialization of the cities. The implementation of the Tourism Regionalization Program did not lead to the territorial deconcentrating of tourism. Although the State of Piauí is part of the *Rota das Emoções*, the tourist activity of the region is slow compared to its neighbors Ceará and Maranhão. Tourism is linked to the sun and beach, ecotourism, and adventure tourism segments. Although natural areas are the raw material for tourism, degradation problems are recurrent.

The complexity of political articulation becomes a challenge and highlights social and spatial differences, own government policies, different cultures, stages of tourism development and different work rhythms. In the realization of tourism, diverse social subjects are involved, including the local population, tourists, market agents and public authorities, with different, sometimes divergent, expectations.

In addition to understanding national public policies for tourism, regional routes should receive greater attention from the Federal Ministry of Tourism, in this sense it is important to carry out further research in the future by carrying out comparative studies of investments in regional tourist routes, in addition to benchmarking research relating to regional routes in Brazil.

Therefore, this research offers meaning as basic research material added to the conceptual framework that can be used to determine how public tourism policies in the study region can collaborate and contribute to better performing tourism. Thus, future research considers factors more diverse than those used in the current work, such as making comparisons with other destinations in the world that have regional networks of tourist routes.

6. References

Alvares, D. F., Santos, S. R.D., & Perinotto, A. R. C. (2020). Network of tourism observatories toward tourism intelligence: the case of brazil. Enlightening tourism. A pathmaking journal, [S.l.], v. 10, no. 2, p. 140-178, dec. 2020. ISSN 2174-548X. Available at: <http://uhu.es/publicaciones/ojs/index.php/et/article/view/4696>. Date accessed: 05 Jul. 2021. doi:http://dx.doi.org/10.33776/et.v10i2.4696.

Andrade, M. C. (2005). A terra e o homem no Nordeste: contribuição ao estudo da questão agrária, 7a ed., São Paulo: Cortez.

Araújo, E. F. (2013). "As políticas públicas de turismo na região Nordeste: novas ações do governo estadual cearense", in Revista Geografia em Atos, 1(13). pp. 22-35.

Bardin, L. (1977). Análise de conteúdo, Lisboa: Edições 70, 1977.

Bobbio, N. (2000). Estado, governo, sociedade: para uma teoria geral da política, (trad. port. de Stato, governo, società. Per una teoria generale della política, por Marco Aurélio Nogueira, ed. original em 1985). 15a ed., Rio de Janeiro: Paz e Terra.

Brasil. (2014). Caracterização e dimensionamento do turismo doméstico no Brasil, Brasília: Ministério do Turismo.

Brasil. (2015). Estatísticas Básicas de Turismo Brasil, Brasília: Ministério do Turismo.

Cavalcanti, A. P. B. (2003). Sustentabilidade ambiental: perspectivas atuais de desenvolvimento, Teresina: UFPI.

Coriolano, L. N. M. T. (2006). O turismo nos discursos, nas políticas e no combate à pobreza, São Paulo: Annablume.

Coriolano, L. N. M. T. (2009). Arranjos produtivos do turismo comunitário: atores e cenários em mudança, Fortaleza: EdUECE.

Coriolano, L. N. M. T., & Fernandes, L. M. M. (2005). Turismo: ações e contradições da realidade cearense, in J. B. Silva; T. Cavalcante; E. W. C. Dantas (orgs.). Ceará: um novo olhar geográfico, Fortaleza: Demócrito Rocha, pp.383-410.

Costa, W. M. (2008). Geografia Política e Geopolítica, São Paulo: Universidade de São Paulo.

Creswell, J. W. (2014). Investigação qualitativa e projeto de pesquisa: escolhendo entre cinco abordagens. Tradução de Sandra Mallmann da Rosa; Revisão técnica: Dirceu da Silva. 3. ed. Porto Alegre: Penso, 2014.

Crotts, J. C., Aziz, A., & Raschid, A. (1998). "Antecedents of supplier's commitment to wholesale buyers in the international travel trade", in Tourism Management, 19(2). pp. 127-134.

Cruz, R. C. A. (1999). Políticas de turismo e (re) ordenamento de territórios no litoral do Nordeste do Brasil, Tese de Doutoramento, São Paulo: FFLCH – Universidade de São Paulo.

Dantas, E. W. C., Ferreira, A. L., & Clementino, M. L. M. (2010). Turismo e imobiliário nas metrópoles, Rio de Janeiro: Letra Capital.

Elias, D. (2005). "Reestruturação produtiva da agricultura cearense: rumo à desintegração competitiva e à fragmentação do espaço agrário", in J. B. Silva; T. Cavalcante; E. W. C. Dantas (orgs.). Ceará: um novo olhar geográfico, Fortaleza: Demócrito Rocha, pp.429-461.

Evans, P. (2004). Autonomia e parceria: Estados e transformação industrial, Rio de Janeiro: UFRJ.

World Economic Forum. (2017). Travel & Tourism Competitiveness Report, [Consult. a 13.03.2018]. Disponível em: http://blog.panrotas.com.br/mktdestinos/index.php/2017/04/07/brasil-ocupa-27a-posicao-em-ranking-de-competitividade-no-turismo/

Fratucci, A. C. (2000). "Os lugares turísticos: territórios do fenômeno turístico", in Revista GEOgraphia, 2(4). pp. 121-133.

Hall, J. (2001). Os Estados na história, Rio de Janeiro: IMAGO.

IBGE. (2018). Cidades Piauí (Instituto Brasileiro de Geografia e Estatística). [Consult. a 06.12.2018]. Disponível em: https://cidades.ibge.gov.br/brasil/pi/pesquisa/10060/60147

Mann, M. (1992). "O poder autônomo do Estado: suas origens, mecanismos e resultados", in J. Hall (org.). Os Estados na história, Rio de Janeiro: IMAGO.

Meyer, D. (2004). Tourism routes and gateways: key issues for the development of tourism routes and gateways and their potential for Pro-Poor Tourism, Overseas Development Institute.

Muller, P. (2000). Les politiques publiques, 4a ed. Paris: Universitaries de France.

UN. (2017). Chegada de turistas internacionais atinge recorde de 1,3 bilhão em 2017, [Consult. a 13.03.2018]. Disponível em: https://news.un.org/pt/story/2018/08/1635612

Oppermann, M., & Brewer, K. P. (1996). "Location decision making in hospitality using GIS – a paradigm shift?", in G. Prosseger (ed.). Australian Hospitality and Tourism Research Conference, Coffs Harbour, Australia: Bureau of Research, pp.279-288.

Pereira, P. A. (2013). Política social contemporânea: concepções e configurações no contexto da crise capitalista. In: Costa, L. C., Nogueira, V. M. R., And Silva, V. R., orgs. A política social na América do Sul: perspectivas e desafios no século XXI [online]. Ponta Grossa: Editora UEPG, 2013, pp. 15-26. ISBN 978-85-7798-231-8. Available from: doi: 10.7476/9788577982318.0001. Also available in ePUB from: http://books.scielo.org/id/rfv9p/epub/costa-9788577982318.epub.

Putrick, S. C. O. (2019). Turismo na Rota Das Emoções e no Desenvolvimento Socioeconômico de Municípios do Estado do Piauí. Tese de Doutorado em Geografia. UFPR.

Selin, S. (1993). Collaborative alliances: new interorganisational forms in tourism. Journal of Travel & Tourism Marketing, 2(2-3). pp. 217-227.

Silva, M. M. M. (2013). O turismo nas ondas do litoral e das políticas públicas do Piauí, Tese de Doutoramento, Belo Horizonte: IGC – Universidade Federal de Minas Gerais.

Silva, M. R. F., & Santos, N. P. (2014). Demanda turística no Brasil e os caminhos para o turismo sustentável, in G. F. Seabra e A. P. Portuguez (orgs.). Turismo sertanejo: patrimônio cultural e realidade social em comunidades, Ituiutaba: Barlavento. pp.110-123.

Souza Neto, G. F. (2018). A modernização do litoral cearense: território, Estado e políticas públicas, Tese de Doutoramento, Fortaleza: PROPGEO – Universidade Estadual do Ceará.

Triviños, A. N. S. (1987). Introdução à pesquisa em ciências sociais: a pesquisa qualitativa em educação, São Paulo: Atlas.

Vieira, A. F., Putrick, S. C., & Cury, M. J. F. (2014). "A Geografia, o desenvolvimento regional e o turismo na Ilha das Canárias, estado do Maranhão-MA-Brasil", in Geographia Opportuno Tempore, 1(2). pp.537-553.

Yázigi, E. (2009). Saudades do futuro: por uma teoria do planejamento territorial do turismo, São Paulo: Plêiade.

Jomat

Journal of multidisciplinary academic tourism

2022, 7 (1): 19-29

https://doi.org/10.31822/jomat.2022-7-1-19

ISSN: 2645-9078

INFO PAGE

The Rota das Emoções in the touristic context of Northeast region of Brazil

Abstract

The objective is to analyze the importance of the Rota das Emoções in the development of Piauí's territory. Piauí is studied in the context of the Northeast of Brazil, geographical space of Piauí and public tourism policies, with a focus on the Programa de Regionalização do Turismo (Tourism Regionalization Program) that suggests itineraries with the emergence of the Rota das Emoções (Route of Emotions), a regional route that comprises the Brazilian states of Piauí, Ceará and Maranhão. The relevance is given by the significant growth acquired by tourism in contemporary society. Governmental actions that promote territorial tourism diffusion are examined in Brazil, especially in Piauí. Private policies that regulate and establish tourist services that generate formal and informal jobs and trigger transformations with a multiplier effect. However, infrastructural transformations do not meet social objectives, directed to the market and to people's well-being.

Keywords: *Public policies, Tourism, Rota das Emoções (Route of Emotions), Northeast of Brazil*

Authors

Full Name	Author contribution roles	Contribution rate
Simone Putrick:	*Conceptualization, Methodology, Data Curation, Writing - Original Draft, Writing - Review & Editing,*	*70%*
André Riani Costa Perinotto:	*Conceptualization, Methodology, Writing - Original Draft, Writing - Review & Editing, Supervision,*	*30%*

Author statement: *Author(s) declare(s) that All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.* ***Declaration of Conflicting Interests:*** *The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article*

This paper does not required ethics committee report

Justification: The methodology of this study does not require an ethics committee report.

Jomat

Journal of multidisciplinary academic tourism
2022, 7 (1): 31-40
www.jomat.org

ISSN: 2645-9078

The opinions of hotel managers about halal hotel concept: A research in Cappadocia

Lütfi Buyruk, Durmuş Ali Aydemir*

Keywords:
Halal tourism,
Halal hotel,
Cappadocia.

ABSTRACT

The number of halal business hotel concept in Turkey in recent years, especially in regions where intensive maritime tourism has been increasing. However, there are no such hotels in the Cappadocia destination. The main purpose of this study is to determine the thoughts of hotel managers in the Cappadocia tourist region on halal tourism and the concept of halal hotels. Using the semi-structured interview technique, open-ended questions were asked by the researchers to the managers of 17 four and five-star hotels with tourism management certificates in the region. The obtained data were subjected to content analysis and interpreted. The main findings obtained from the research are that hotel managers in Cappadocia see "halal tourism" as a rapidly developing market in the world that will become even more important in the future, and there is no need for a halal hotel concept to promote the demand for the region; they did not intend to make arrangements in accordance with the halal hotel concept and obtain halal hotel certification in their businesses. They kept prayer rugs in their hotel upon the requests of the guests, they turned their meeting rooms into masjids when requested; and hotel rooms have a sign showing qibla on nightstand drawers.

Article History:
Submitted: 21.01.2021
Accepted: 25.09.2021

Doi: https://doi.org/10.31822/jomat.2022-7-1-31

1. Introduction

Tourism is seen as the best way to reduce poverty, increase employment and create economic growth, especially in developing countries. For this reason, it is developing faster than other sectors (Tanrısever, Pamukçu, & Batman 2016). Today, due to the increasing competition in the tourism sector and the similarity of the offered tourist products, businesses have to put forward different products and services from their competitors and find new markets (Arpacı, Uğurlu, & Batman, 2015; Karakuş, 2019). At the same time, it can be an important strategy to consider the potential of different market segments, since the characteristics of tourists are not homogeneous (Okumus, Shi, & Dedeoglu, 2021). The concept of halal tourism has emerged in recent years in line with the wishes and expectations of the guests and has begun to take place in the tourism literature as a research area. Especially in the last decade, the halal tourism market in the world is showing a development that cannot be ignored. Many investors from Muslim and non-Muslim countries who want to take part in the world halal tourism pie have started to be interested in the concept of halal tourism. It is foreseen by the authorities that Muslim tourists will spend $ 157 billion in 2020. According to some, this figure will reach $ 200 billion (Hospitality News Middle East, 2018).

In recent years, tourism operators in many countries have shown interest in the concept of halal tourism. This interest in halal tourism may be due in part to the increase in the Muslim population worldwide (Battour & Ismail, 2016). In fact, the Muslim population of the world which was 1.8 billion in 2015, is estimated to reach 2.2 billion in 2030 and 2.6 billion in 2050 (Nasdaqomx, 2012; Pewforum, 2017). Parallel to the increase in the Muslim population, efforts to provide products and services in line with the expectations of this population traveling for holiday purposes and thus

**Corresponding Author*

Lütfi Buyruk: *Assoc. Prof., Nevşehir Hacı Bektaş Veli University, Nevşehir, Turkey, Email: buyruk@nevsehir.edu.tr, Orcid Id: 0000-0002-1921-7782*

Durmuş Ali Aydemir: *Lecturer N., Nevşehir Hacı Bektaş Veli University, Nevşehir, Turkey, Email: durmusaliaydemir0@gmail.com, Orcid Id: 0000-0003-1842-7021*

Research paper

trying to get more shares from the “halal tourism” pie can be considered as the reasons of this interest. Mastercard-Crescent Rating (2019) report that halal tourism is an impressive rapidly growing dynamic market segment. Muslim travel market is expected to reach US $ 220 billion by 2020 and it is estimated that US $ 300 billion will increase by 36% in the next six years.

The study primarily focuses on the concepts of halal, halal tourism and halal hotels. Then, description will be made about the development of the halal hotel business in Turkey. The field research is aimed at determining the opinions of hotel managers in Cappadocia region about halal tourism and halal hotel concept. The data obtained by the semi-structured interview method were analyzed and the results were evaluated.

On the other hand, this study was conducted with the belief that it would be possible to obtain the most realistic ideas about whether it would be appropriate to invest in a halal hotel concept in a destination from hotel managers working in that destination. Because they best observe the current demand for the destination and the future development course of the demand.

2. Literature Review

Halal and Halal Tourism Concepts

The life styles of Muslims are generally shaped by the orders and prohibitions of the Quran, the holy book of the Islamic religion, and the circumcision practices taken from the lifestyle and discourses of the Islamic prophet Hz. Muhammad (Tekin, 2014). As previously mentioned, the concept of halal tourism has emerged in recent years in line with the wishes and expectations of the guests and has begun to take place in the tourism literature as a research area. Halal is a word of Arabic origin and related to Islam which is not only involved to food products. Halal is a concept which includes various products and services offered to Muslims in the sense that they are religiously appropriate or permissible (Tuna, 2016; Samori, Salleh, & Khalid, 2016: 132). The word “halal” in the Turkish Language Association's Current Turkish Dictionary (2019) is defined as “anti-haram which is not contrary to the rules of religion and is not prohibited in terms of religion”. Although the concept of halal, which is emphasized with precision by Muslims, is identified with food, different products and services are also considered within halal measurements. The concept of halal includes cosmetic products, health products, bank-finance and tourism services as well as food (Çallı, 2014; Sulıgoj & Marusko 2017; Nordin & Rahman, 2018). Thus, the concept of halal is not only used to express the conformity of food and drink with Islamic principles, in a broader sense, it is a significant concept that has influence in all Muslim living spaces (Batman, 2017; Birinci & Karakuş, 2020).

As of 2018, Turkey ranks 4th in most preferred halal tourism destinations in the world, following Malaysia, Indonesia and the United Arab Emirates. According to the visa requirements, air connection and transportation infrastructure scores, which are easy to access the destinations, Turkey has taken the first place among the most frequently visited 10 halal tourism destination. (Mastercard-Crescent Rating, 2018). Turkey is ranked 6th in the rankings to have the most appropriate halal tourism services performed between Muslim countries. These rankings and scores are shown in table 1.

Table 1: Top 10 Muslim destinations offering the most affordable halal tourism services

Destinations	Restaurant	Places of worship	Airport	Unique experiences	Hotel	Total points
1. Malaysia	95.0	100.0	100.0	10.2	75.2	380.4
2. Indonesia	90.0	100.0	100.0	18.0	59.4	367.4
3. Saudi Arabia	95.0	100.0	100.0	9.2	62.9	367.1
4. United Arab Emirates	80.0	100.0	100.0	10.4	72.3	362.7
5. Egypt	85.0	100.0	80.0	53.8	37.9	356.7
6. Turkey	75.5	100.0	86.7	40.8	51.5	354.5
7. Qatar	90.0	100.0	100.0	9.6	54.6	354.2
8. Oman	80.0	100.0	100.0	9.6	46.5	336.1
9. Bahrain	70.0	100.0	100.0	20.8	44.8	335.6
10. Iranian	85.0	100.0	80.0	33.2	34.4	332.6

Source: *Mastercard&Crescentrating Global Muslim Travel Index, 2018.*

Halal tourism, which has recently gained popularity and is rapidly becoming a new phenomenon in the tourism industry, refers to tourism products offered according to Islamic beliefs and practices (Nasdaqomx, 2012). In the past traditionally, halal tourism has been associated with pilgrimage and umrah travels. There has always been an interest in pilgrimage to Mecca, which is connected to the Islamic religious. However, the rise of wealthy middle-class Muslim consumers and their starting to see travel as part of everyday life has changed the choice of Muslims from traditional destinations such as Mecca to the best holiday destinations (Ryan, 2016; Nasdaqomx, 2012).

In the meantime, it is necessary to mention a conceptual issue that should not be underlined. There are differences between the term "Islamic tourism" in the Western literature and "halal tourism". Boğan and Sarıışık (2018) emphasize that it is not appropriate to substitute Islamic tourism with halal tourism. Islamic tourism refers to Muslims' travels to Mecca on religious grounds to perform the pilgrimage and become a pilgrim. For religious purposes, it is possible to name the travels of people belonging to all religions as "religious tourism". Since early ages religious has been an important reason for traveling. Pilgrimage, which consists of religious travel to a temple or a holy place, is one of the oldest forms of tourism (Timothy & Olsen, 2006; Tuna, 2016; Türker, 2016). Yet, halal tourism has nothing to do with worship. Halal tourism is a recreational tourism and people of the Islamic religious travel for the reasons why each person wants to travel. The main motivation is not religious and worship, and Muslims want to travel and see the world for reasons that motivate many tourists (Ryan, 2016; Tuna, 2016; Batman, 2017). The demand for halal tourism has increased as traveling Muslims want to travel without any worries about their religious beliefs. In addition, the increase in the Muslim population, the increase of the young Muslim population with a high level of education, the increasing knowledge of Muslims about halal products, the increase in the income level of Muslims are other reasons for the increased interest in halal tourism (Dilek & Çakmak, 2017).

Halal Hotel Concept

In general, halal hotel management is similar to other traditional hotels. The most important difference is that the hotel is designed and operated in accordance with Islamic rules. In addition to the halal kitchen and restaurant where halal food and drinks are prepared and served; halal hotels should also be free from bars, discos where serving alcoholic beverages and any other entertainment that violates Islamic rules (Mahamood et al., 2018). The structure of halal hotel management is determined according to Islamic rules with a number of practices such as halal meals, places of worship, places without pork and alcohol, separate spa and sports facilities for men and women (Han et al., 2019). In this case, halal hotel can be defined as accommodation establishments, whose main function is to meet the needs of the guests overnight, designed according to Islamic rules and offering their guests the needs of food, drink, sports, rest and entertainment within the framework of halal principles.

Halal hotels are briefly defined as businesses that provide services to their customers in accordance with Islamic rules. However, when we look at the sector, the number of hotels offering all products and services in accordance with Islamic rules is limited. For this reason, hotels in the halal tourism industry are classified under 3 groups. Only hotels where alcohol consumption is prohibited, "non-alcoholic hotel " or "dry hotel " ;hotels offering halal food, rooms with Quran and prayer rugs, separating services for men and women "partially halal hotel" and in addition to those mentioned above, hotels that comply with Islamic rules for all services from hotel design to financing are called "halal hotels" (Akbaba & Çavuşoğlu, 2017; Saad & Ali, 2014).

Halal hotels are the ones that take into account their religious sensitivity and privacy in the services they offer to meet the accommodation needs of their guests (Samori et al. 2016). In order to qualify the hotel business as halal, they must have 3 main factors; (1) halal environment, (2) halal food and beverages, and (3) halal business finance. Today's hotels with these basic qualities position themselves as halal hotels and strive to attract Muslim guests (Bilgin & Karakaş, 2017). Table 2 shows the basic features that must be present in halal hotels, which are different from traditional hotels.

Halal Hotel Management in Turkey

In the context of halal tourism, halal accommodation establishments and halal food establishments are the two main types of enterprises. Turkey is one of the first countries to implement the halal hotel concept. Especially in the coastal areas, the number of businesses applying this concept as a holiday hotel is gradually increasing. The concept of halal hotels is

Table 2: Basic Qualifications of Halal Hotels

Hotel Sections	Qualifications
ROOMS	• Holy Quran, prayer rugs and prayer beads must be kept, Qibla must be specified in a fixed place of the room. • If there is a television, recorded obscene channels and CDs, DVDs and tapes should not be available. • Pets should not be allowed in rooms. • Alcoholic and cola acidic beverages in mini refrigerators in rooms, cleaning and cosmetic products should not be kept in bathrooms and sinks without certificate. • Customers should be placed in their rooms in compliance with Islamic rules. Guests arriving as a couple should be asked for a marriage certificate before giving the room. • Toilets should not be facing Qibla. Toilets must be equipped with appropriate bidet.
FOOD & BEVERAGE	• Food and beverages provided to the hotel and all kinds of food must comply with halal food conditions. • Alcoholic beverages should not be served in all areas of the hotel. • Music broadcasting should not be done in places such as restaurants, cafes and buffets. • There is no waste in Islam. The situations that cause wastage should be checked and precautions should be taken and the guests should be informed. • During Ramadan, the property should be served in accordance with iftar-sahur times. However, necessary precautions should be taken for children, patients and the elderly who cannot fast.
PUBLIC PLACES	• The hotel should have a pool, masjid, beach, sports and entertainment areas which are allocated for men and women. • Entertainment and animation activities must comply with Islamic rules. • Events should be organized according to prayer times. • Any kind of gambling should not be allowed inside the hotel. • Both guests and staff should wear non-low-cut Islamic clothing.

Source: *GIMDES-Association of Food Inspection and Certification Researches (2019), ADL Document and Consulting Services (2019).*

less common in the destinations located outside the coasts in Turkey (Tekin, 2014).

The year of 2002 can be considered as a milestone in the emergence of halal hotels in Turkey. While the number of halal concept hotel in Turkey until 2002 was only 5, this number reached 44 by the year 2011; some sources state the number even more than 60 (Yılmaz & Güler, 2017). It is quite difficult to identify clearly the number of halal hotels in Turkey. There is no statistical information on this subject. However, when you search halalbooking.com which is the first among the halal hotel search engines, there will be 1620 “halal” or “Muslim friendly” worldwide Reservation information is available for accommodation. When the countries where the company stays on the site selected tab Turkey, 591 enterprises are encountered. Among the qualifications of these hotels, when the “no-alcohol policy/whole property” tab is selected 414 enterprises are seen. Therefore, this figure indicates the number of accommodation which has “halal” concept in Turkey. Again according to the data on this site, there are 75 five-star halal hotels, 132 four-star halal hotels, 187 three-star halal hotels and 11 two-star halal hotels. The number of hotels with no star classification (unrated) and estimated to be municipal certified is 186 (Halalbooking, 2019).

In parallel with the developments in the world, the interest in halal tourism trend and halal tourism concept is increasing by hotel investors and hotel operators in some destinations in Turkey. In recent years, it has been seen that some hotel businesses, especially in the Alanya region, have rapidly transformed their concepts into halal hotels. However, these applications require some changes in the hotel infrastructure such as the construction of separate masjids, swimming pools, gymnasiums for men and women, and the creation of ambience reflecting Islamic values in interior design. Employees should also be trained on how to provide quality service to these vulnerable guests (Boğan & Sarıışık 2018). Therefore, implementing the halal hotel concept requires investments such as money and time. Before investing in a halal hotel, it is necessary to conduct a comprehensive research. Otherwise, the money, time and efforts spent may be wasted.

There are many studies dealing with the development of halal tourism in the world and the issue of Halal tourism conceptually (Timothy & Olsen, 2006; Samori, Salleh, & Khalid, 2016; Ryan, 2016; Battour & Ismail, 2016). Some studies in the world and Turkey about the Halal concept of the hotel is also available (Carboni & Janati 2016; Boğan & Sarıışık 2018; Mahamood et al., 2018; Nordin & Rahman, 2018). However, there are very few studies investigating the thoughts of hotel managers on the halal hotel concept.

3. Methodology

In the literature, there are some studies such as the perceptions of the halal hotel concept made by the owners of the house boarding-style accommodation business by the Carboni and Janati (2016), and examining the opinions of the hotel managers in Çanakkale on the concept of halal tourism (Diker et al., 2018). There is no study on this subject in Cappadocia region and this is the first study conducted for hotel managers in the region.

The main purpose of this study is to determine the opinions of hotel managers on the concept of halal tourism and halal hotels in the Cappadocia destination. The data were collected by using semi-structured interview technique which is one of the qualitative research methods. As is known, interviewing is one of the techniques commonly used in social science research (Bradford & Cullen, 2012) The main reason for this is that the interview is an effective method to obtain information about the individual's attitudes, emotions, thoughts and beliefs (Flick, 2009; Fylan, 2005). The semi-structured interview technique used in this study, depending on the flow of the interview, the researcher may influence the flow of the interview with different side or sub-questions, and allow the person to open his / her answers and elaborate (Blandford, 2013; Adams, 2015). Because of these characteristics, semi-structured interview technique was preferred in the collection of research data.

Population and Sample

The population of the research consists of 4 and 5 star hotels located in Nevşehir which is the center of Cappadocia region. According to the data of the Provincial Directorate of Culture and Tourism, there are 22 hotels with four and five stars in Nevşehir were included in the research. Three thermal hotels in Kozaklı district were excluded from the research and it was aimed to interview the managers of 19 four and five star hotels in Nevşehir Center and districts. However, for various reasons (not to make an appointment, not to accept the interview etc.), it was possible to contact the managers of 17 hotels. The interviewers serve as hotel manager, front office manager and reservation manager. The interviews were made by the authors in the hotels in 2019, and each interview lasted approximately 30 minutes.

In this research, purposeful sampling method was used to determine the sample. This method is used in qualitative research and includes the people who are directly related to the subject. Therefore, interviews with the managers of the hotels which are located in the research population and in accordance with the determined criteria of the research were analyzed.

Data Collection Tool

The questions to be asked in the interview were determined by using the literature. A total of 4 questions were asked to the interviewers face to face. These are (1) What do you think about the halal tourism market in the world? (2) Is there a need for a halal hotel concept in order to increase the tourist demand for Cappadocia? (3) Qibla signs, prayer rugs etc. are necessary in hotels to satisfy tourists from Muslim countries; are these applications available in your hotel? (4) Do you plan to make arrangements in accordance with the demand for halal hotels and get a halal hotel certificate for your hotel in the future? According to the flow of the interview, necessary explanations were made about the questions; by creating a sincere atmosphere, tried to get comfortable, honest and correct answers to the questions asked. The answers given to 4 questions by the interviewers were deemed sufficient for the information desired to be obtained.

The data obtained were analyzed by content analysis. Comparisons were made between the data and whether they were matched and overlapped. Findings were interpreted by tabulating with frequency analysis technique.

4. Findings and Discussion

A common feature of the 17 managers interviewed was that they worked as a hotel manager in the region for more than 10 years. Therefore, they have sufficient knowledge and experience in the structure of demand to the region and hotel management. Eight of the managers are hotel managers, six are front office managers and three are reservation managers.

Hotel Managers' Opinions on the World's Halal Tourism Market

The answers to the question of What do you think about the halal tourism market in the world? show that most of the managers describe this market as a “developing market”. Again, managers emphasize that this market is “an important market” and “demand for the market will increase and will continue to develop”. Answers to this question include “a bright future”, “a market to be supported” and “an alternative market to the Western market” (Table 3).

Table 3: Hotel Managers' Opinions on the World's Halal Tourism Market

Rank	Opinions about halal tourism market	f (*)	%
1	A developing market	12	71
2	An important market	8	47
3	Demand for the market will increase and continue to improve	7	41
4	A bright market for the future	5	29
5	A market that needs to be supported	3	18
6	An alternative market to the Western market	3	18

(*) Some interviewees expressed more than one opinion.

Source: Authors

Hotel Managers' Opinions on the Need for a Halal Hotel Concept to Increase Tourist Demand for Cappadocia

As a second question to the hotel managers interviewed, “is there a need for a halal hotel concept in order to increase the tourist demand for Cappadocia?” was asked. Among the answers received, “there is no need, the number of Muslim tourists coming to the region is few” took first place. The other answers are “there is no need at the moment, if the demand increases may be needed”, “small supply can be created, not lack of region”. Only 2 hotel managers replied: “Yes, a few halal hotels can be opened especially for the demand of domestic guests”. Again, 2 hotel managers stated that they think as “if 1-2 halal hotels are opened the region would benefit” (Table 4).

Some answers to the question of whether a halal hotel concept is needed to increase the tourist demand for Cappadocia are as follows:

- *“Halal hotel concept is not needed in the region. Demand from Muslim countries to the region does not exceed 10%. Cappadocia destination attracts more tourists from Christian and other religions”*

- *“There is no need for a Halal hotel, the historical structure of the region, museums and historical sites do not attract the attention of tourists from Muslim countries.”*

- *“If one or two halal hotels are opened, there will be a return to the region. However, let's open 3 halal hotels, the fourth does not work. Because demand is limited. ”*

Hotel Managers' Opinions on Qibla Signs, Prayer Rugs, etc. to Satisfy Tourists from Muslim Countries

When the question was asked to hotel managers “Qibla signs, prayer rugs etc. are necessary in hotels to satisfy tourists from Muslim countries; are these applications available in your hotel? they all said yes and stated that such applications are necessary. Almost all of them have said that some of these applications are included in their hotels according to the demands of Muslim tourists. Table 5 lists the answers to this question.

Table 5: Hotel Managers' Opinions on Qibla Signs, Prayer Rugs, etc. to Satisfy Tourists from Muslim Countries

Rank	Opinions on Qibla Signs, Prayer Rugs, etc. to Satisfy Tourists from Muslim Countries	f (*)	%
1	Required, we have applications	17	100
2	We have prayer rugs, we give on request	17	100
3	There are signs showing the Qibla in the drawers of the nightstand	15	88
4	We're removing alcohol from the mini bar	8	47
5	We organize the meeting room as a masjid	5	29
6	We have the Qur'an and give it on request	3	18

(*) Some interviewees expressed more than one opinion.
***Source**: Authors*

Table 4: Hotel Managers' Opinions on the Need for a Halal Hotel Concept to Increase the Tourist Demand for Cappadocia

Rank	Opinions about whether a halal hotel concept is needed to increase the tourist demand for Cappadocia	f (*)	%
1	There is no need for a small number of Muslim tourists visiting the region	14	82
2	No need for now, may be needed if demand increases	8	47
3	Small supply can be created, not short of region	5	29
4	Yes, several halal hotels can be opened for domestic guests	2	12
5	If one or two halal hotels are opened, it will help the region.	2	12

(*) Some interviewees expressed more than one opinion.
Source: Authors

When the answers are analyzed, it is seen that prayer rugs are kept in all hotels and given to guests when requested. Most hotels have a Qibla sign in their rooms. When requested, they remove alcoholic beverages from the minibar and turn the meeting room into a masjid. Only 3 hotel managers stated that they have a Koran in their hotel to be given to guests upon request.

Hotel Manager's Opinions about making arrangements in accordance with the demand of Halal Hotel and receiving Halal Hotel Certificate in the future

Finally, to the hotel managers, "Do you plan to make arrangements in accordance with the demand for halal hotels and get a halal hotel certificate in your hotel in the future?" was asked. In response to this question, all of the hotel managers stated that they did not see the need to obtain a halal hotel certificate in the future. A significant number of managers stated that they do not intend to make arrangements in accordance with the halal hotel concept in the future. Three managers said that they would consider making partial arrangements such as non-alcoholic restaurants and masjids, and two executives said they could make arrangements upon request (Table 6).

Table 6: Hotel Manager's Opinions about making arrangements in accordance with the demand of Halal Hotel and receiving Halal Hotel Certificate in the future

Rank	Opinions for making arrangements in accordance with the demand of halal hotels and obtaining halal hotel certificate in the future	f (*)	%
1	We do not need a Halal hotel certificate	17	100
2	We do not intend to arrange in accordance with the concept of halal hotel in the future	12	71
3	Partial arrangement, such as non-alcoholic restaurant and masjid	3	18
4	Can be arranged upon request	2	12

(*) Some interviewees expressed more than one opinion.
Source: Authors

Here are some answers to the question "Would you consider making arrangements in your hotel in accordance with the request for a halal hotel and getting a halal hotel certificate?":

- "We do not need halal hotel regulations and certificate when we look at the demand. The demand for Muslim tourists is around 5% in Cappadocia."
- "Not as long as there is demand from the West. We do not want to create a Halal hotel image and lose the Western market. We respectfully serve all religions."
- "You can think about Konya, it is convenient to destination structure. Not suitable for Cappadocia."
- "We are the biggest hotel in the region with 435 rooms. If there is sufficient demand in the future, we can consider arrangements in line with the halal hotel concept."

5. Conclusion and Suggestions

In this study conducted to investigate the opinions of hotel managers about halal tourism and halal hotel concept in Cappadocia touristic region, it was found that the majority of hotel managers in the region described the halal tourism market as a bright and important future in the world. Another finding of the study is that most of the hotel managers think that a halal hotel concept is not needed to increase the demand for tourists to Cappadocia from Muslim countries. Because according to the hotel managers, the number of tourists coming from Muslim countries does not exceed 10% in the current tourist profile of Cappadocia. However, in order to please the tourists from the Muslim countries and domestic conservative tourists, such as applications prayer rugs, the sign showing the Qibla, to remove alcoholic beverages from the mini bar and organize the meeting room as a masjid are available in almost all hotels. All of the hotel managers involved in the interview do not intend to receive a halal hotel certificate in the future. Again, a significant number of managers do not intend to implement the halal hotel concept in the future. The main reason for this is that tourists from the Western world and other non-Muslim countries compose the destination's market.

The results of this study are similar to the findings in the study (Diker et al., 2018) investigating the views of hotel managers in Halal tourism in Çanakkale. Hotel managers in Çanakkale have a negative perception about the concept of halal tourism as the demand for halal tourism is not sufficient in the province. As the demand for halal tourism is very low in the Cappadocia region, the hotel managers do not favor to halal hotel concept and get halal hotel certificate. In addition, these results, it should be kept in mind that halal hotel investments and applications should be made in accordance with the target markets of the destination. It would be meaningless to engage in halal hotel investment and management without the data on the current demand structure and the direction of the demand.

However, increasing demand of halal tourism is a phenomenon that will not be denied in Turkey and the World. In the 3rd Tourism Council gathered in Ankara (2017), the issue of halal tourism was also discussed. Market research for halal tourism, identification of promotion and marketing strategy; Gulf, Arab, African and Balkan countries and Turkish Republics as the target market is proposed. When we look at the Muslim tourists coming from abroad to the destination of Cappadocia, it is seen that they originated mostly from Malaysia, Indonesia, Gulf countries and Turkish Republics and a small amount of Singapore. Especially, Malaysia and Indonesia should be taken into consideration in promotion and marketing strategies as they are important halal tourism markets.

In the halal tourism, as in other tourism types, food and beverage services are also important besides accommodation. Therefore, in the promotional campaigns aimed at the Muslim tourist market, together with halal hotels, Turkish cuisine, in which preparing dishes using halal foods can be brought to the fore.

It is seen that some businesses use the halal tourism label to provide marketing advantage. Therefore, halal hotel criteria should be determined by the Ministry of Culture and Tourism. Hotels that do not provide the necessary infrastructure and standards should be prevented from using the halal hotel label in their sales and marketing activities.

Finally, considering the current market profile of the Cappadocia destination, it can be concluded that the concept of halal tourism and halal hotels is not necessarily encouraged; the opinions of hotel managers are also in this direction. There are already some hotels in the Kozaklı district and districts such as Göreme and Uçhisar that serve according to Islamic principles in line with the beliefs of the hotel owners and the demands of the domestic market.

It is obvious that the halal tourism trend is developing gradually in the world and in Turkey. However, it is a fact that extensive research should be done before investing in a certain concept. This research will be beneficial for investors who plan to invest in halal hotels in the Cappadocia region.

Among the limitations of the research is that the real numbers of tourists coming to the Cappadocia region from Islamic countries could not be obtained. If these tourist numbers were obtained, it would support the thoughts of hotel managers. Not being able to interview more hotel managers can be counted among the limitations of the research.

Future research may explore the necessity of halal tourism investments in different destinations to guide investors and regional or national tourism policies. In addition, researches can be made on whether the investment will be appropriate for different tourism concepts for a destination.

References

Adams, W. C. (2015). Conducting semi-structured interviews, Handbook of Practical Program Evaluation, 4th ed., Newcomer, K.E., Hatry,H.P.&Wholey,S.J. (edits), Jossey-Bass.

ADL Document and Consulting Services. (2019). Halal Hotel Certificate Rules. Retrieved from http://adlbelge.com/helal-otel-sertifikasi.

Akbaba, A., & Çavuşoğlu, F. (2017). Helal otel kavramı ve Türkiye'de helal otel sertifikasyonu, *International Journal of Contemporary Tourism Research* 1, pp. 48-58.

Arpacı, Ö. , Uğurlu, K., & Batman, O. (2015). Helal Konseptli Otel İşletmelerine Yönelik Yapılan Müşteri Şikâyetleri Üzerine Bir Araştırma, *Bartın Ün. İİBF Dergisi*, Cilt 6, Sayı 11, (181-198).

Batman, O. (2017). Sorularla Helâl Turizm / Helâl Turizm Nedir veya Ne Değildir?, 1.International Halal Tourism Congress / 07-09 April 2017 / Alanya / Turkey. Pp. 30-32.

Battour, M., & Ismail, M. N. (2016). Halaltourism: Concepts, practises, challenges and future, *Tourism Management Perspectives*, 19, pp 150-154.

Bilgin, Y., & Karakaş, A. (2017). Otel İşletmelerinin Helal Niteliğinin Müşteri Değerlendirmelerine Yansımaları: İstanbul'daki Helal Konseptli Otel İşletmeleri Örneği, *Uluslararası Yönetim İktisat ve İşletme Dergisi*, Cilt 13, Sayı 4, ss.911-926.

Birinci, C. M., & Karakuş, Y. (2020). Halal Recreation and Reflections on the Hospitality Industry. In İ. Yazıcıoğlu, Ö. Yayla, & T. Çetin (Eds.), *Tourism and Hospitality Studies*. Bern, Switzerland: Peter Lang.

Blandford, A. (2013). Semi-structured qualitative studies, The Encyclopedia of Human-Computer Interaction, Soegaard, M. & Dam, R. F. (eds.), 2nd Ed. Aarhus, Denmark.

Boğan, E., & Sarıışık, M. (2018). Halal tourism: conceptual and practical challenges, Journal of Islamic Marketing.

Bradford, S., & Cullen, F. (2012). Research and research methods for youth practitioners. London: Routledge

Çallı, İ. D. (2014). Using Halal Concept in Ethnic Marketing "An Analysis on Food Commercials Broadcasted in Germany" *Anadolu University Journal of Social Sciences,* v.14, 4, 43-55.

Carboni, M., & Janati, M. I. (2016). Halaltourism de facto: A casefrom Fez, *Tourism Management Perspectives* 19, 155-159.

Diker, O., Yıldırım, H. M., & Tabatabaeinasab, M. (2018). Determining the Halal Tourism Concept Perceptions of Hotel Managers in Çanakkale, *Turkish Studies*, Volume 13/26, Fall.

Dilek, S., & Çakmak, F. (2017). Helal turizm eğilimleri: kastamonu ilinde bir uygulama. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 6(6), 314-339.

Flick, U. W. E. (2009). An introduction to qualitative research. London: SAGE Publishing.

Fylan, F. (2005). Semi-structured interviewing, A Handbook of Research Methods for Clinical and Health Psychology, Miles, J. & Gilbert, P. (edits), Oxford University Press, New York.

GIMDES. (2019). How should a Halal hotel be? Retrieved from http://www.gimdes.org/helal-otel-nasil-olmali-2.html#more-4928) Retrieved 07.02.2019

Halalbooking.com (2019). Hotels in Turkey. Retrieved from https://tr.halalbooking.com/

Han, H., Al-Ansi, A., Olya, H. G. T., & Kim, W. (2019). Exploring halal-friendly destination attributes in South Korea: Perceptions and behaviors of Muslim travelers toward a non-Muslim destination*, Tourism Management* 71, 151- 164.

Hospitality News Middle East. (2018). The global halal tourism sector is driven by millennials Retrieved from http://www.hospitalitynewsmag.com/en/event/the-global-halal-tourism-sector-is-driven-by-millennials and muslim-travelers-are-expected-to-spend-usd-157-billion-by-2020/) Retrieved 06.02.2019

Karakuş, Y. (2019). Identifying the Best Alternative Tourism Product for a Destination: the case of Cappadocia. *Revista Anais Brasileiros de Estudos Turísticos - ABET*, 9 (1). https://doi.org/10.34019/2238-2925.2019.V9.16929

Mahamood, S. F., Fikri, A., & Nor, N. S. N. M. (2018). Modelling Grand BlueWave Hotelin Managing Challenges of Islamic Hotel Performance (IHP): An Overview of the Islamic Spirituality Instilled, Proceedings of the 3rd International Halal Conference (INHAC 2016), Springer Nature Singapore PteLtd.,pp. 283-289.

Mastercard-Crescent Rating (2018). Mastercard & Crescentrating Global Muslim Travel Index 2018. www.crescentrating.com) Retrieved: 07.02.2019

Mastercard-Crescent Rating. (2019). Mastercard-Crescent Rating Halal Travel Frontier 2019 Report. www.crescentrating.com, Retrieved: 07.02.2019

Nasdaqomx. (2012). The Global Halal Industry: An Overview, Edbiz-Nasdaq Omx Sharia Indexes.

Nordin, N. S. A., & Rahman, F. A. (2018). A Critical Review of the Muslim-Friendly Hospitality Services Standard (MS 2610:2015) in Malaysia, Proceedings of the 3rd International Halal Conference (INHAC 2016), Springer Nature Singapore Pte Ltd., pp. 211-222.

Okumus, B., Shi, F., & Dedeoglu, S. B. (2021). What is the Role of Demographics in Tourists' Attitudes Towards Foods? *Journal of Gastronomy and Tourism*, *5* (4), 207–220. https://doi.org/10.3727/216929721X16105303036562

Pewforum. (2017). The Changing Global Religious Landscape, http://www.pewforum.org/2017/04/05/the-changing- global-religious-landscape/#global-population-projections-2015-to-2060, Retrieved 08.02.2019.

Ryan, C. (2016). Halal Tourism, *Tourism Management Perspectives* 19, pp.121-123.

Saad, H. E., & Ali, B. N. (2014). Sharia-compliant hotels in Egypt: Concept and challenges. *Advances in Hospitality and Tourism Research (AHTR*), 2(1), 1-15.

Samori, Z., Salleh, N. Z. M., & Khalid, M. M. (2016). Current trends on Halal tourism: Cases on selected Asian countries, *Tourism Management Perspectives* 19, pp 131-136.

Sulıgoj, M., & Marusko, H. (2017). Hotels and Halal-oriented Product: What Do Hotel Managers in Slovenia Think?, *Organizacija,* Vol. 50, No.4, pp. 314-323.

Tanrısever, C., Pamukçu, H., & Batman, O. (2016). New Tourism Trends In The World and Their Adaptations To Turkey, GÜSBEED, Gümüşhane Üniversitesi Sosyal Bilimler Enstitüsü Elektronik Dergisi, Cilt 7, Sayı 16, ss.55-72.

Tekin, Ö. A. (2014). İslami Turizm: Dünyadaki ve Türkiye'deki Genel Durum Üzerine Bir İnceleme. Journal of International Social Research, 7(29), ss.750-766

Timothy, D. J., & Olsen, D. H. (2006). Tourism, religion and spiritual journeys. London: Routledge.

Tuna, F. (2016). The Role and Potential of Halal Tourism in Turkey, Alternative Tourism in Turkey, Egresi, I. (Ed.), GeoJournal Library 121, pp. 259- 267, Springer, Switzerland.

Türker, N. (2016). Religious Tourism in Turkey, Alternative Tourism in Turkey, Egresi, I. (Ed.), GeoJournal Library 121, pp.151-172, Springer, Switzerland.

Turkish Language Association. (2019). Current Turkish Dictionary. Retrieved from www.sozluk.gov.tr

Yılmaz, L., & Güler, M. E. (2017). Türkiye'de Muhafazakâr Değerler Bağlamında Turizm ve Tatil Algısındaki Değişme, *International Journal of Contemporary Tourism Research* 1, pp.17-25.

Journal of multidisciplinary academic tourism
2022, 7 (1): 31-40
https://doi.org/10.31822/jomat.2022-7-1-31
ISSN: 2645-9078

INFO PAGE

The opinions of hotel managers about halal hotel concept: A research in Cappadocia

Abstract

The number of halal business hotel concept in Turkey in recent years, especially in regions where intensive maritime tourism has been increasing. However, there are no such hotels in the Cappadocia destination. The main purpose of this study is to determine the thoughts of hotel managers in the Cappadocia tourist region on halal tourism and the concept of halal hotels. Using the semi-structured interview technique, open-ended questions were asked by the researchers to the managers of 17 four and five-star hotels with tourism management certificates in the region. The obtained data were subjected to content analysis and interpreted. The main findings obtained from the research are that hotel managers in Cappadocia see "halal tourism" as a rapidly developing market in the world that will become even more important in the future, and there is no need for a halal hotel concept to promote the demand for the region; they did not intend to make arrangements in accordance with the halal hotel concept and obtain halal hotel certification in their businesses. They kept prayer rugs in their hotel upon the requests of the guests, they turned their meeting rooms into masjids when requested; and hotel rooms have a sign showing qibla on nightstand drawers.

Keywords: *Halal tourism, Halal hotel, Cappadocia.*

Authors

Full Name	Author contribution roles	Contribution rate
Lütfi Buyruk:	*Methodology, Resources, Writing - Original Draft, Writing - Review & Editing, Supervision,*	*70%*
Durmuş Ali Aydemir:	*Resources, Writing - Original Draft, Writing - Review & Editing,*	*30%*

Author statement: *Author(s) declare(s) that All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.* ***Declaration of Conflicting Interests:*** *The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article*

This paper does not required ethics committee report
Justification: This research was conducted before January 1, 2020. For this reason, it is exempt from "ULAKBIM TRDizin" criterion.

Jomat

Journal of multidisciplinary academic tourism
2022, 7 (1): 41-53
www.jomat.org

ISSN: 2645-9078

The effects of personality traits, organizational identification and trust in the manager at hotel organizations

Ali İnanır

Keywords:
Hotel Organizations, Personality Traits, Organizational Identification, Trust in the Manager, Antalya

Article History:
Submitted: 06.05.2021
Accepted: 07.11.2021

ABSTRACT

The aim of the research is to determine the effects of personality traits, organizational identification and trust in the manager at hotel organizations. This study has been carried out in January-June 2019 with employees in five-star hotels located in Antalya, one of the most common holiday destinations in Turkey. In this study, a quantitative research has been conducted and survey technique has been used. 375 questionnaires were analyzed. Research analyses have been performed with the help of SPSS package program and AMOS package program. Frequency analysis, factor analysis and structural equation modelling have been utilized on the study. As a result, openness to experience, conscientiousness and extraversion personality traits have a significant effect on organizational identification and openness to experience, conscientiousness and agreeableness have a significant effect on trust in the managers. In this context, it has been determined that the openness to experience and conscientiousness have a significant effect on organizational identification and trust in the managers. As well as organizational identification has a significant effect on trust in the manager. This research serves as a guide for hotel managers about employees. In this context, the fact that hotel managers prefer employees who are openness to experience and conscientiousness personality traits can benefit their organizations in the long term.

Doi: https://doi.org/10.31822/jomat.2022-7-1-41

1. Introduction

Personality traits that distinguish individuals from others in the social structure (Smith, Nolen-Hoeksema, Fredrickson, & Loftus, 2003) are an effective factor in the success of the employees in the organization (Barrick & Mount, 1991; Larsen, Esenaliev, Brück, & Boehnke, 2020). Organizational identification, which is regarded as the degree of the similarity of the personality traits and organizational value of individuals (Dutton, Dukerich, & Harquail, 1994), ensures that employees are successful in supporting organizations in managerial matters, increasing the organizational hierarchy, giving importance to their work, and increasing service quality (Dolke, 1991). The trust in managers that effects the behaviour of employees in organizations also increases the sustainable commitment of employees to business (Butler, 1991).

Attracting employees who have confidence and adaptability to the organization and managers increases the organizational performance, sustainable organizational commitment, organizational citizenship behaviour of employees, and decreases the turnover rate and intention to leave work (Riketta, 2005). Therefore, the realization of the process of determining the employee, who adapts to the organization as a person and who trusts the manager, in the accommodation sector where face-to-face service is provided, is an important issue.

In the literature, Aghaz and Hashemi (2014), Topçu and Basım (2015) have revealed that personality traits effect organizational identification. From the sub-dimensions of personality traits, Hongwei, Weiyue, Weichun, and Lloyd (2015), Ocak, Gider, Gider and Top (2017) have discovered the effect of agreeableness dimension, Barrick and Mount (1991), Saldago

Research paper

Ali İnanır: *Ph.D. Lecturer, Burdur Mehmet Akif Ersoy Üniversity, Burdur, Turkey, Email: ainanir@mehmetakif.edu.tr, Orcid Id: 0000-0001-8647-3375*

(1997) and Başar (2010) have discovered the effect of conscientiousness dimension, Smith and Canger (2004), Kieffer, Schinka, and Curtiss (2004), Yarmacı, Karaçar, and Pelit (2016) have discovered the effect of agreeableness and conscientiousness personality traits on organizational identification. Martins (2002) has revealed the effect of personality traits on trust in managers, Ping, Mujtaba, Whetten and Wei (2012) and Mooradian, Renzl, and Matzler (2006) have revealed the effect of personality traits on trust. Also, Biçkes and Yılmaz, (2017); Şen and Günaydın, (2019); Gazeloğlu, Erkılıç, & Aytekin (2019); Erat, Kitapçı and Akçin (2020) have exhibited the effect of trust in managers on the organizational identification. However, a study demonstrating the trust of the employees associated with the organization against the manager has not been found in the literature. This study is important in terms of filling this gap in the literature. Also, the fact that there has not been a study that deals with the five dimensions of personality traits together with organizational identification and trust in the manager reveals the contribution of the research to the literature. Furthermore, the fact that a study on the effects of personality traits on organizational identification and trust in managers has not been conducted before, in the region where this research took place, makes this research important.

2. Literature Review

Within the scope of the literature review, information has been presented by referring to research on personality traits, organizational identification and trust in managers.

Personality traits

Personality, which is one of the important fields of psychology science (Goldberg, 1992; Atak, 2013) is a concept that is defined by multiple researchers in different fields such as philosophy, sociology, and law (Saucier & Goldberg, 2003). In this sense, according to McCrae and Costa (1989), personality is the way of behaviour that occurs in individuals in different situations, permanently emotional, social, experiential, attitudinal and motivational styles. In accordance with Funder (2001), the individual's unique thinking patterns, emotions, attitudes, and explicit or hidden psychological conditions are the factors behind it. Personality and its traits are a system that reveals the behaviour of the individual, his psychological structure, who he is, and what his emotional behavioral and cognitive styles are (Mount, Barrick, Scullen, & Rounds, 2005).

It consists of four main theories: Personal traits theory, psychodynamic theory, humanistic theory and integrative theory. The five-factor personality model developed by McCrae and Costa (1987) is the one of the most used model in literature (Taşcı & Eroğlu, 2007). It is observed that the majority of the personality trait researchers; Judge and Cable (1997); Stevens and Ash (2001); Rothman and Coetze (2003); Mount et al., (2005); Bilgin (2011); İnanır (2012); Gore, Kiefner and Combs (2012); Atak (2013); Çetinsöz and Akdağ (2015); Yarmacı et al. (2016); İnanır, Gürsoy and Sarı (2017); Hicks and Mehta (2018) and İnanır and Ucar (2021) carry out their research with the scale formed within the framework of this model. This model consists of the openness to experience, conscientiousness, extraversion, agreeableness, neuroticism dimensions (McCrae & Costa, 1987; Allik & McCrae, 2002; McCrae & Costa, 2006; Costa & McCrae, 2009).

The dimension of openness to experience reveals the traits of individuals such as curious, brave, liberal, analytical thinking, creative, intellectual, acting outside of the traditional, seeking new experiences (McCrae & Costa, 2003). When an environment is provided to reveal the creativity of individuals who are open to innovations in businesses, it is seen that it provides a high level of benefits in terms of new designs and processes (George & Zhou, 2001).

The dimension of conscientiousness reveals the tendency of individuals to work, keep their work and motivation high. employees with high conscientiousness demonstrate high performance, work in harmony with other employees, and comply with business ethics rules (Barrick, Mount, & Judge, 2001).

Extraversion dimension is the dimension of being personality traits of being social, assertiveness, self-confidence, talkative and energetic. Extroverted individuals often tend to be intertwined with large groups and crowded societies. They are very successful in establishing relationships with subordinates in managerial matters in businesses. This contributes to their high performance in managerial issues (Costa & McCrae, 1992). Due to their success in social interaction in particular, they are employed more in organizations with team-oriented organizational culture (Judge & Cable, 1997).

The dimension of agreeableness is the dimension that shows the personality traits of individuals such as geniality, sympathy, trustworthiness, helpfulness and servitude (Gore et al., 2012). Individuals with a high level of agreeableness are very successful in establishing social relationships with other individuals. At the same time, individuals with the personality trait of agreeableness are more helpful towards their colleagues (Organ & Ryan, 1995; Hurtz & Donovan, 2000).

The dimension of neuroticism is the dimension that reveals personality traits that have negative effects such as emotional adjustment problem, fear, anxiety, sadness, tension, anxiety, and impulse disorder (Judge & Cable, 1997). Individuals with high neurotic levels experience inadequate solutions to the problems they encounter (Üngüren, 2019).

Organizational Identification

Individuality is a phenomenon that includes characters such as talents and interests, social identities and the groups to which the individual belongs (Tajfel & Turner, 1985). Individuals tend to include themselves in a social group or organizational identity by nature (Mael & Ashforth, 1992). In this direction, the cognitive relationship that emerges when the individual's concept of individuality and the perceived organizational identity contain similar features reveals the phenomenon of organizational identification. In this context, organizational identification can be expressed as the individual's commitment to the organization he/she works with (Pratt, 1998) including any case with the organization (Ashforth & Mael, 1989). From these assessments, it is revealed that organizational identification is not a special behaviour, but a cognitive structure (Gould, 1975).

Organizational identification of the individual reveals the harmony of his personality to the membership of the organization (Karabey & İşcan, 2007). In order to be compatible with the organization, the beliefs and goals of the individual and the organization must be compatible with each other (O'Reilly, Chatman, & Caldwell, 1991; Kristof, 1996). The fact that the organization meets the needs of the individuals with its existing resources increases the harmony between the organization and the individual (Turban & Keon, 1993; Kristof, 1996). In this case, it increases the integration of the individual with the organization (Valentine, Godkin, & Lucero, 2002; Tuna & Yeşiltaş, 2014). In this sense, the following hypotheses from H1 to H5 have been developed, reviewing the effect of personality traits on organizational identification.

H1: Openness to experience as personality trait has a positive effect on organizational identification.

H2: Conscientiousness as personality trait has a positive effect on organizational identification.

H3: Extraversion as personality trait has a positive effect on organizational identification.

H4: The agreeableness as personality trait has a positive effect on organizational identification.

H5: The neuroticism as personality trait has a positive effect on organizational identification.

Trust in the Manager

The phenomenon of trust has been a subject that has been addressed by many researchers in the field of social sciences, both as confidence in the manager and organizational trust. Researchers have revealed that the concept of trust is a necessary concept for the formation of the balance of the social field and the development of social relations (Blau, 1964; Möllering, Bachmann, & Lee, 2004). At the same time, since it is a concept that is difficult to define, multiple definitions have been made in this research about trust (Rawlins, 2007). In this sense, according to Welch (2005), trust is expressed as a noticeable phenomenon when needed. According to Cook and Wall (1980), trust is expressed as an individual's willingness to believe in the behaviour, discourse and actions of others. In another definition, trust is expressed as the expectation that an individual, group or organization will develop behaviours in line with ethical principles and that other individuals, groups or organizations will have common relations or changes (Hosmer, 1995). In a similar definition, Rotter (1967) has defined trust as the belief that an individual or group would fulfill the verbal or written statement given to another or group. From the definitions that have been revealed, it has been exhibited that the trust is very important in bilateral relations, and that both sides have expectations from each other about trust.

The phenomenon of trust starts at the top of an organization and moves down to the lower levels. Therefore, the phenomenon of trust in the manager effects trust in the organization positively. Because employees think that managers represent the business, they can generalize trust in the organization to the organization (Tan & Tan, 2000; Erkmen & Esen, 2013). In order to build trust in managers in the organization, the fact that the managers are honest, behave fairly in their decisions, behave in a consistent manner, share information, fulfill the promise they have, hold the authority, are sufficient in their field, have high commitment to the organization, and show sensitivity to their work stand out as significant matters (Deluga, 1994; Akgündüz, Güzel, & Harman, 2016). The high level of trust in the manager in organizations helps the manager do his job effectively and efficiently (Kouzes & Posner, 1987). In order for these factors to be applied effectively in organizations, the personality traits of managers appear to be a very important phenomenon. In this context, the following hypotheses from H6 to H10 have been developed that examine the effect of personality traits on trust in managers. In addition, the effect of organizational identification on trust in managers has been tested with the hypothesis H11.

H6: Openness to experience has a positive effect on trust in the manager.

H7: Conscientiousness has a positive effect on trust in the manager.

H8: Extraversion has a positive effect on trust in the manager.

H9: The agreeableness has a positive effect on trust in the manager.

H10: The neuroticism has a positive effect on trust in the manager.

H11: Organizational identification has a positive effect on trust in the manager.

3. Methods, Population and Sample

The survey technique from the quantitative research methods has been used in this research. In this context, 400 surveys have been sent to employees working in five-star accommodation businesses. 375 of the 400 surveys collected between January - June 2019 using the convenience sampling method have been used in the analyses. The first part of the 4-part survey consists of questions to determine the demographic characteristics (age, gender, marital status, educational status, working time and monthly income) of the employees.

In the second part of the survey, the five-factor personality model has been utilized, which has been created by McCrae and Costa (1987) and developed by Marshall, Wortman, Vickers, Kusulas, Hervig (1994), then adapted to Turkish by Gülgöz (2002) and whose validity and reliability has been tested by multiple researchers such as Bacanlı, Bacanlı, İlhan, & Aslan (2009); Bilgin (2011); Çatı, Bilgin, & Kılınç (2013). The scale consists of 48 questions and 5 dimensions (openness to experience, conscientiousness, extraversion, agreeableness, neuroticism).

In the third part of the questionnaire, the organizational identification scale is used, which has been developed by Mael & Ashforth, (1992) and whose validity and reliability in Turkish has been tested by Tüzün (2006).The scale consists of 6 questions. In the last part of the survey, the trust in the manager scale is used, which has been developed by Erdem and Aytemur (2014) and whose validity and reliability in Turkish has also been tested by Erdem and Aytemur (2014).The scale consists of 19 questions.

In the survey, the 5-point Likert scale has been used as 1-absolutely disagree and 5-absolutely agree. Research analyses have been performed with the help of SPSS package program and AMOS package program. The participants of this research are employees of five-star accommodation businesses in Antalya Province. The sample of the research consists out of six five-star accommodation businesses located in the Alanya. There is a total of 353 five-star hotels in tourism locations in and around Antalya (Ministry of Culture & Tourism, 2019). According to the data of the Social Security Institution, as of March 2018, the number of employees working in five-star hotels is 237,900 (www.turizmgazetesi.com). In the study of Sekaran (2003), it has been determined that the sufficient sample size is 384 in the studies whose population size is about 1.000.000. 375 surveys that have been accepted in this research comprises of 98% of the population. In addition, in structural equation modelling analysis, the sample size is generally accepted as 100 as minimum and 200 as the preferable limit for normally distributed data (Şimşek, 2007). Accordingly, it is acceptable to include 375 surveys in any research.

4. Findings of this Research

This research's findings consist of demographic characteristics of hotel employee, measurement model and research model findings.

Demographic Findings

The frequency and percentage distributions of the demographic characteristics of the participants in the study are given in Table 1. According to the table, 38.6% of the employees participating in this

Table 1: Demographic Characteristics of Hotel Employee

Gender	n	%	Marital Status	n	%
Male	227	61.4	Married	237	63.2
Female	143	38.6	Single	117	31.7
Unanswered	5	5.0	Unanswered	21	5.1
Education Status	**n**	**%**	**Age**	**n**	**%**
High School	118	31.5	18-24 years	174	46.4
Bachelor Degree	107	28.5	25-31 years	90	24.0
Associate Degree	64	17.1	32-38 years	56	14.9
Primary School	60	16.0	39-45 years	22	5.9
Unanswered	19	5.1	46-52 years	14	3.7
Master's Degree	7	1.9	53-59 years	6	1.6
Term of Employment	**n**	**%**	60 and older	1	0.3
Less than 1 year	141	37.6	Unanswered	12	3.2
2-5 years	145	38.7	**Department of Employment**	**n**	**%**
6-9 years	42	11.2	Food & Beverage	134	35.7
10 years and over	18	4.8	Others	93	24.8
Unanswered	29	7.7	Front Office	83	22.1
Monthly Income	**n**	**%**	Housekeeping	28	7.5
TRY 1500 and less	26	6.9	Human Resources	11	2.9
TRY 1501-2500	186	49.6	Sales & marketing	10	2.7
TRY 2501-3500	112	29.9	Public Relations	9	2.4
TRY 3500 and above	51	13.6	Unanswered	7	1.9

***Source**: Author*

research are women, 61.4% are men and 5%. The marital status of the employees is 63.2% single, 31.7% married. The majority of employees are in the age range of 18-24 with 46.4%, 25-31 with 24%, 32-38 with 14.9%. When the educational status of the participants is examined, 31.5% are secondary school graduates, 17.1% are associate degree graduates, 28.5% are undergraduate graduates. A significant number of employees (35.7%) work in food and beverage, (24.8%) in other departments and (22.1%) front office. The majority of employees work in hotels for 2-5 years (38.7%) and less than 1 year (37.6%). The employees of the hotels have an income of TRY 1501-2500 (49.6%) and TRY 2501-3500 (29.9%) income.

Measurement Model Findings

Before moving on to the measurement model in the research, first the explanatory factor analysis (EFA) then confirmatory factor analysis have been performed in order to measure to reliability and validity of the scales created for each of the variables in the research model. It is desired that the factor loads are obtained higher than the value of 0.50 in the factor analysis (Bryne, 2010). Personality scale has been collected into 5 dimensions as a result of the EFA; namely openness to experience (OE), conscientiousness (CO), extraversion (EX), agreeableness (AA) and neuroticism (NT). The explained variance of these dimensions has been calculated as 53.559, KMO = 0.83, Bartlett Sphericity Test: sd = 85 (sig. 000). As a result of the explanatory factor analyses, the statements with low factor loads (OE7 to OE10, CO11 and CO16 to CO20, EX25 to EX29, AA35 to AA38) have been removed from the model. Since the values obtained as a result of the EFA on Organizational Identification (OI), (total variance= 56.297, KMO = 0.79, Bartlett Sphericity Test: sd=15 (sig. 000) As a result of the explanatory factor analyses, the statements with low factor loads (OI1 and OI2) have been removed from the model. and trust in the manager (TM), (total variance= 63.157, KMO = 0.96, Bartlett Sphericity Test: sd=171(sig. 000) are acceptable levels (Can, 2018).

As seen in Table 2, confirmatory factor analysis (CFA) has been performed to scales used in the measurement model. After confirmatory factor analysis, expressions with standardized values of 0.40 and t values less than 1.96 (NT47 and NT48) have been excluded from the model. The variables in the model to be used in the research have been examined in the relationships (See Table 4).

Table 2: Measurement Model (Confirmatory Factor Analysis-CFA)

Variable Code	Questions	Effect	Variable	Estimate	Std.Value	t- value	p
P1	I am an idealistic person.	<---	OE	1.000			
P2	I think I am smart.	<---	OE	.080	.068	14.439	***
P3	I have a rich vocabulary.	<---	OE	1.099	.076	14.461	***
P4	I have a great imaginary world.	<---	OE	.989	.079	12.571	***
P5	I think my ideas are perfect.	<---	OE	1.001	.084	11.973	***
P6	I spend time realizing my thoughts.	<---	OE	.864	.080	10.800	
P12	I am very meticulous in my work.	<---	CO	1.000			
P13	I work in a planned and programmed way.	<---	CO	1.75	.063	17.076	
P14	I don't leave today's work for tomorrow.	<---	CO	1.171	.073	16.054	
P15	I like rules.	<---	CO	.990	.080	12.400	
P21	I see entertainment as a lifestyle.	<---	EX	1.00			***
P22	I want all the attention to be on me.	<---	EX	1.287	.174	7.380	***
P23	I act comfortable in society.	<---	EX	1.063	.139	7.640	***
P24	I talk a lot.	<---	EX	.950	.127	7.486	
P30	I can understand other people's feelings.	<---	AA	1.000			***
P31	I am soft-hearted.	<---	AA	.856	.097	8.831	***
P32	I can feel other people’s emotions easily.	<---	AA	1.272	.114	11.142	***
P33	I care about the feelings of others.	<---	AA	.856	.085	10.035	***
P34	I spend time for other people.	<---	AA	1.051	.100	10.538	***
P39	Emotionally I am very fragile.	<---	NT	1.000			***
P40	My mood changes a lot.	<---	NT	.892	.127	7.038	***
P41	I get quickly angry.	<---	NT	1.051	.141	7.455	***
P42	I am easily stressed.	<---	NT	1.000			
P43	I get very quickly sad.	<---	NT	1.320	.098	13.513	***
P44	I get very quickly shocked.	<---	NT	1.210	.090	13.515	***
P45	I am a pessimistic person.	<---	NT	1.243	.146	8.518	***
P46	I worry about everything.	<---	NT	1.148	.139	8.237	***
TM1	I trust my manager’s knowledge about his/her job.	<---	TM	1.000			
TM 2	I trust my manager’s experience.	<---	TM	.986	.056	17.556	***
TM 3	I trust my manager’s working discipline.	<---	TM	1.061	.058	18.290	***
TM 4	My manager has a good command of his/her job.	<---	TM	1.027	.046	21.654	***
TM 5	My manager organizes the work well.	<---	TM	1.019	.058	17.528	***
TM 6	My manager is successful in solving complex problems.	<---	TM	1.060	.060	17.579	***
TM 7	My manager always overcomes problems we face regarding work.	<---	TM	.852	.055	15.574	***
TM 8	My manager is loyal.	<---	TM	.967	.061	15.842	***
TM 9	I consider my manager a person to be trustworthy.	<---	TM	.992	.064	15.490	***
TM 10	My manager is interested in my personal problems.	<---	TM	.945	.063	14.893	***
TM 11	My manager is interested whether I am happy with my job or not.	<---	TM	1.130	.066	16.988	***
TM 12	My manager does not hurt me on purpose.	<---	TM	.948	.074	12.798	***
TM 13	My manager is always sensitive to my priorities.	<---	TM	.834	.060	13.897	***
TM 14	My manager is forgiving.	<---	TM	1.150	.078	14.778	***
TM 15	My manager acts fairly when handing out rewards.	<---	TM	1.135	.078	14.632	***
TM 16	What I trust most in my manager is that he/she is fair.	<---	TM	1.190	.077	15.543	***
TM 17	My manager assesses his/her staff’s performance impartially.	<---	TM	1.069	.061	17.523	***
TM 18	My manager maintains his/her impartiality while managing a conflict.	<---	TM	1.041	.061	17.061	***
TM 19	My manager applies work-related rules equally to everyone.	<---	TM	1.125	.082	13.865	***
OI3	When I talk about this hotel, I usually say "we" rather than "they ".	<---	OI	1.000			***
OI4	The success of this hotel is my success.	<---	OI	.878	.079	11.072	***
OI5	When someone praises this hotel, it feels like a personal compliment.	<---	OI	.787	.078	10.151	***
OI6	If a story in the media would criticize this hotel, I would feel embarrassed.	<---	OI	1.083	.167	6.492	***

Note: Openness to experience (OE), conscientiousness (CO), extraversion (EX), agreeableness (AA), neuroticism (NT), Organizational Identification (OI), trust in the manager (TM).
Source: *Author*

Table 3: Convergent validity and Cronbach's alpha (α) values

	Cronbach's Alpha	CR	AVE
OE	.858	.856	.545
CO	.845	.854	.597
EX	.663	.665	.400
AA	.760	.771	.537
NT	.838	.845	.648
TM	.967	.909	.588
OI	.755	.759	.514

Note: Openness to experience (OE), conscientiousness (CO), extraversion (EX), agreeableness (AA), neuroticism (NT), Organizational Identification (OI), trust in the manager (TM), CR= Composite Reliability, AVE= Average Variance Extracted.
Source: *Author*

The observed variables in the measurement tool above show that they are related to the implicit variables to which they are linked. Relationships among all the variables in the measurement model have been found to be significant ($p < 0.05$). According to the goodness of fit, χ2 value (χ2 = 643,636; sd: 327) is significant. The ratio of the value of χ2 to the degree of freedom (χ2 / sd) is 1.96. This value is less than 3, which is defined as the indicator of a good model, and shows a good fit. RMSEA (0.051) remains below 0.08. IFI (0.93) and CFI (0.94) values above 0.90 indicate a very good fit.

Within the scope of determining the reliability and validity of the study; CR and AVE values have been examined (Table 3). CR (Composite Reliability) values are expected to be 0.70 and above and AVE (Average Variance Extracted) values are expected to be over 0.50 (Bryne, 2010; Hair, Black, Babin & Anderson, 2014). The CR value being greater than 0.70 indicates that the internal consistency of the factors is high and the AVE being value higher than 0.50 indicates that there is a sufficient level of variance explained by the variables associated with the factors (Fornell & Larcker, 1981). As well as, according to some sources, CR values should be 0.60 and above, and AVE values should be above 0.40 in order to provide convergent validity.

When Table 2 examined, it is determined that the lowest CR value calculated for latent variables is 0.665 and the lowest AVE value is 0.525, and it is understood that the assumptions of the convergent validity are provided. In addition, it can be stated that discriminant validity is ensured because the correlation value between each construct is below .90.

5. Research Model Findings

Research model t-values related to the explanation of the relationship between the variables are shown Figure 1. Paths with a t value below 1.96 in the structural model are not statistically significant (Taşkın & Akat, 2010). Parameter estimates are at 0.05 level if t values exceed 1.96 and 0.01 significance if exceed 2.56 (Çokluk, Şekercioğlu, & Büyüköztürk, 2012). When the t values in Figure 1 are examined, it is observed that the relationships between openness to experience and organizational identification (2.001), openness to experience and trust in the manager (4.637), extraversion and organizational identification (2.203), conscientiousness and organizational identification (4.794) and Conscientiousness and trust in the manager (5.321), organizational identification and trust in the manager (7.790) yield a significant t value of 0.01. At the same time, there is a significant t value of 0.01 in the negative direction between openness to experience and trust in the manager (-2.777). However, the relationships between agreeableness and organizational identification (0.793), neuroticism and organizational identification (0.235), extraversion and trust in the manager (-0.470), neuroticism and trust in the manager (0.999) are not significant since the t value is below 1.96.

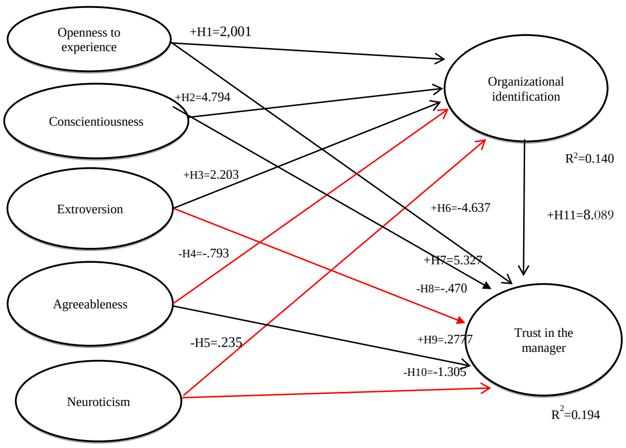

Figure 1: Research Model Results
Source: *Author*

The ratio of the model's χ2 value to the degree of freedom (χ2 / df) is 3205,225 / 1206 = 2.657. This value is less than 3, which is defined as the indicator of a good model, and shows a good fit. RMSEA (0.067), RMR (0.083) and SRMR (0.077)

Table 4. Findings Related to Path Analysis and Hypothesis Results

Hypothesis	Path analysis	Std. path coef.	t values	p	Results
+H1	OE → OI	.062	2.001	0.045*	√
+H2	CO→ OI	.058	4.794	0.000**	√
+H3	EX→ OI	.064	2.203	0.028*	√
-H4	AA→ OI	.067	0.793	0.428	X
-H5	NT → OI	.053	0.235	0.815	X
+H6	OE→ TM	.064	4.637	0.000**	√
+H7	CO→ TM	.043	5.321	0.000**	√
-H8	EX→ TM	.061	-0,470	0.638	X
+H9	AA→ TM	.088	2,777	0.005*	√
-H10	NT→ TM	.068	0,999	0.318	X
+H11	IO → TM	.096	7.790	0.000**	√

Notes: **p<0.001, *p<0.01, p<0.05: Goodness-of-fit statistics of Path Analysis: $\Delta\chi2$=917,952; sd= 338; $\chi2$/sd=2,716; RMSEA=0.068; CFI=0.884; GFI=0.932; IFI= 0.885

***Source**: Author*

values are below 0.08, indicating an acceptable goodness of fit. GFI (0.93) and AGFI (0.90) values being higher than 0.90 indicate good compliance. Finally, IFI (0.93) and CFI (0.822) values are acceptable since they are close to ≥0.90 (Hair et al., 2014; Vieira, 2011). Also, r2 values showing how much the variables explain each other are above the desired level (r2> .10) (Falk & Miller, 1992).

In the research, the hypotheses H1, H2, H3, H6, H7, H9 and H11 have been accepted as they statistically have a t value of >1,96 and have an effect at a significance level of p<0,005. The hypotheses H4, H5, H8 and H10 have been rejected as they statistically have a t value of <1,96 and don't have an effect at a significance level of p<0,005.

6. Discussion and Conclusion

The purpose of this research is to determine the effects of personality traits (openness to experience, conscientiousness, extraversion, agreeableness and neuroticism) in hotel organizations on the organizational identification and the trust in the manager. As a result of the analysis made for this purpose majority of the participants are men, single and young people, when the results related to the demographic variables are examined. These results are consistent with the general structure of the employees of the region where this research has been conducted. It is seen that the majority of the employees are secondary education graduates. Even though the majority of the participants in the research work in the front office department, the low level of education turned out to be a remarkable result. When the working hours and income levels are examined, it is noticed that the majority of the participants work between 2 and 5 years and are in the income range of TRY 1501 to 2500.This fact led to the conclusion that employees usually work for a short time in the tourism industry and are employed with a low income. The reason for this situation is that the hotels where the research has been conducted are coastal hotels and generally the employers of coastal hotels are employed with such employment policies.

In this research, it has been found that openness to experience, conscientiousness and extraversion personality traits have been an effect the organizational identification of the employees (accepted, H1, H2, H3). Partially supporting this conclusion, Barrick and Mount (1991), Saldago (1997), Smith and Canger (2004), Kieffer et al. (2004) have demonstrated in their researches that the personality traits of conscientiousness have a significant effect on the organizational identification of employees. Again, it has been concluded that the employees do not have a significant effect on organizational identification from the personality traits of agreeableness and neuroticism (rejected H4, H5). Contrary to this result, Hongwei et al. (2015) have concluded that in their research for call center employees, compliance personality traits had a positive effect on organizational identification. The fact that the lines of business in which the studies were conducted are different from each other may have an effect in the emergence of this situation. As well as, it has been determined that the personality traits of openness to experience, conscientiousness and agreeableness have an effect on the trust in the manager (accepted, H6, H7, H9). However, it has been concluded that the personality traits extraversion and neuroticism did not have a significant effect on the trust in the manager (rejected H8, H10). partially supporting this situation, Ping et al., (2012) found that personality traits of extraversion and neuroticism had no effect on trust in their study. Lastly, it has been concluded that organizational identification has a significant effect on the trust in the manager (accepted, H11).

When the results of the research are generally evaluated it is obtained that the employees, who are openness to experience and have conscientiousness personality traits, identify with their organizations and also trust their managers. Due to the fact that the tourism industry is an industry that is sensitive to the external environment and a has a labour-intensive structure, the integration of employees who are openness to experience and conscientiousness who identify with their organizations and trust their managers emerged as an important result. However, this research has revealed that employees who has extraversion and neuroticism as a personality trait do not trust their managers. It can be stated that this situation arises from the management system that is used in the hotel establishments where this research has been carried out. As another result of this research, it has been revealed that employees who have the personality traits extraversion, agreeableness and neuroticism have problems both in identifying with their organizations and in trusting their managers. While employees with neuroticism problems were expected to experience problems with identification and trusting their managers, it has emerged as an unexpected result that employees with the personality trait extraversion and agreeableness also have problems in trusting or identifying with the manager. The reason for this result may come from the wage system that is applied in the hotels where the research has been conducted, the seasonal employment, and the short-term crises occurring in the industry.

Based on the results obtained, some suggestions can be given to hotel managers on the issues of finding and hiring employees, the salary, and keeping the employees in the organization for the long-term. Hotel managers should examine this and other similar scientific studies about employees in hotels. Managers need to be aware of the competencies that staff should have when recruiting (Karakuş, Onat, & Yetiş, 2018). In the hiring process, they can employ employees who have the personality traits openness to experience and conscientiousness. The employees who have these personality traits may create a great competitive advantage for the hotel organization because they depend on the state of organizational identification and have trust in their managers. In addition, those who are open to experience has also a low intention to leave (Gazeloğlu et al., 2019), are invested in their jobs, have high performance, can establish good relationships, and have high satisfaction levels (Tüzün & Çağlar, 2008; Ocak et al., 2017); therefore, they can increase the hotel organizations' profit margins in the long run. Employees with the personality trait of agreeableness are very successful in establishing social relations with other employees. At the same time, employees with this personality trait are more helpful towards their colleagues (Organ & Ryan, 1995; Hurtz & Donovan, 2000). However, these employees may have problems with organizational identification. Therefore, issues such as the management system, salary, performance evaluation and rewarding can be overcome by establishing a fair system and organizational identification if these employees are recruited for a hotel organization. Lastly, the state of organizational identification as well as the trust of the employee in the manager can be a guide in employee recruitment and keeping employees in the organization for the long-term.

There may be some possible limitations and suggestions in this study. The research has been carried out for the employees of Alanya district and seasonal hotels in Antalya. Subsequent research can be conducted in different destinations and for different hotel (city hotels, ski hotels, thermal hotels, etc.) employees. Additionally, researchers may conduct more studies that examine the relationship between organizational identification, trust in the manager and the relationship between these terms.

References

Aghaz, A., & Hashemi, A. (2014). Investigating the impact of personality traits on expanded model of organizational identification. *International Journal of Business and Management,* 9(3), 148-156.

Akgündüz, Y., Güzel, T., & Harman, S. (2016). How the manager trust and distributive justice can affect the employees' job embeddedness. *Ege Academic Review,* 16(2), 351-362.

Allik, J., & McCrae, R. R. (2002). A five-factor theory perspective, In: McCrae. R. R. & Allik. J. (Ed.). *The Five Factor Model of Personality Across Cultures* (pp. 303-322), New York: Kluwer Academic Plenum.

Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organizations, *Academy of Management Review*, 14, 20-39.

Atak, H. (2013). The Turkish adaptation of the ten-item personality inventory. *Archives of Neuropsychiatry*, 50, 312-319.

Bacanlı, H., İlhan, T., & Aslan, S. (2009). Development of a Personality Scale Based on Five Factor Theory: Adjective Based Personality Test (SDKT). *Turkish Journal of Educational Sciences*, 261-279.

Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions job performance: A meta-analysis. *Personnel Psychology*, 44, 1-26.

Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and performance at the beginning of the new millennium: what do we know and where do we go next? *International Journal of Selection and Assessment*, 9, 9-30.

Başar, U. (2010). Effects of personality traits of organizational employees on organizational identification levels: An application in the public sector. 8th International Information, Economy and Management Congress, Proceedings Book. 28-31 October 2010, 1659-1669.

Biçkes, D. M., & Yılmaz, C. (2017). The effect of employees' organizational trust perception on their identification: an empirical study. *KSU Journal of Social Sciences,*14(1), 301-322.

Bilgin, Y. (2011). A field research on personality traits and thoughts on profession of students' undergraduate education in tourism, Unpublish master's thesis, Düzce University)

Blau, P. M. (1964). *Exchange and power in social life.* New York: Wiley Inc.

Bryne, M. B. (2010). *Structural equation modeling with AMOS* . New Jersey, USA: Lawrence Erbaum Associates Publisher.

Butler, J. K. (1991). Toward understanding and measuring conditions of trust: evolution of a conditions of trust inventory. *Journal of Management,* 17, 643-663.

Can, A. (2018). SPSS ile bilimsel araştırma sürecinde nicel veri analizi. Ankara: Pegem Akademi.

Çatı, K., Bilgin, Y., & Kılınç, I. (2013). Correlation between the personality of tourism students and their perception and attitude towards the tourism profession. *Social and Educational Studies,* 5(2), 283-302.

Çetinsöz, B. C., & Akdağ, G. (2015). The relationship of the personality traits of employees working in hotel management with their job performance: a research in five-star hotels in Antalya. *Tourism Academic Journal*, 2(1), 1-13.

Çokluk, Ö., Şekercioğlu, G., & Büyüköztürk, Ş. (2012). *Multivariate statistics for social sciences SPSS and LISREL applications.* Ankara: Pegem Akademi.

Cook, J., & Wall, T. (1980). New work attitude measures of trust, organizational commitment and personal need non-fulfilment, *Journal of Occupational Psychology,* 53: 39-52.

Costa, P. T., & McCrae, R. R. (1992). Revised NEO personality inventory (NEO-PI-R) and NEO five-factor inventory (NEO-FFI) Professional Manual. Odessa FL: Assessment Resources.

Costa, P. T., & McCrae, R. R. (2009). The five-factor model and the neo inventories. In Butcher, J. N. (Ed.*). The oxford handbook of personality assessment* (pp. 299-322). New York, NY: Oxford University Press.

Deluga, R. J. (1994). Supervisor trust building, leader-member exchange and organizational citizenship behavior. *Journal of Occupational and Organizational Psychology,* 67, 315-326.

Dolke, A. M. (1991). Personal-personality, job and organizational correlates of work identification. *Indian Journal of Social Work,* 52(4), 621-633.

Dutton, J. E., Dukerich, J. M., & Harquail, C. V. (1994). Organizational images and member identification, *Administrative Science Quarterly*, 39, 239-263.

Erat, S., Kitapçı, H., & Akçin, K. (2020). Managerial perception and organizational identity: a comparative analysis. *Sustainability,* 12(6), 1-16.

Erdem, F., & Aytemur, J. (2014). Context-specific dimensions of trust manager, subordinate and co-worker in organizations. *Journal of Arts & Humanities,* 3(10), 28-40.

Erkmen, T., & Esen, E. (2013). Investigating the relationship between trust to manager and trust to organization in service sector. *Balkan Journal of Social Sciences,* 2(3), 1-12.

Falk, R. F., & Miller, N. B. (1992). *A primer for soft modelling. Akron,* OH: University of Akron Press.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error, *Journal of Marketing Research,* 18(1),39-50.

Funder, D. C. (2001). *The personality puzzle*. New York: Norton.

Gazeloğlu, C., Erkılıç, E., & Aytekin, E. (2019). The effect of trust in manager on the organizational identification and intention to quit: A research on hospitality business employees. *Journal of Tourism and Gastronomy Studies,* 7(3), 19912-1932.

George, J. M., & Zhou, J. (2001). Understanding when bad moods foster creativity and good ones don't: the role of context and clarity of feelings, *Journal of Applied Social Psychology,* 87, 687-697.

Goldberg, L. R. (1992). The Development of markers for the big-five factor structure. *Psychol Assess,* 4, 26-42.

Gore, J. S., Kiefner, A. E., & Combs, K. M. (2012). Personality traits that predict academic citizenship behavior. *Journal of Applied Social Psychology*, 42(10), 2433-2456.

Gould, S. B. (1975). Organizational identification and commitment in two environments. Doctoral Dissertation, Michigan State University, Lansing.

Gülgöz, S. (2002). Five-factor model and NEO-PI-R in Turkey. A. J. Marsella (Series Ed.), R.R. McCrae and J, Allik (Eds.), The Five-Factor Model Across Cultures, (pp. 1-23), New York: Kluwer Academic Plenum.

Hair, J., Black, W., Babin, B., & Anderson, R. (2014). *Multivariate data analysis.* Harlow Essex: Pearson New International Edition.

Hicks, R. E., & Mehta, Y. P. (2018). The Big five type a personality, and psychological well-being. *International Journal of Psychological Studies,* 10(1), 49-58.

Hongwei, H., Weiyue, W., Weichun, Z., & Lloyd, H. (2015). Service workers' job performance the roles of personality traits, organizational identification and customer orientation.*European Journal of Marketing,* 49(11), 1751-1776.

Hosmer, L. T. (1995). Trust: The connecting link between organizational theory and philosophical ethics. *Academy of Management Review*, 20(2), 379-403.

Hurtz, G. M., & Donovan, J. J. (2000). Personality and job performance: the big five revised. *Journal of Applied Psychology,* 85: 869-879.

İnanır, A. (2012). Investigation of the relationship between personality types of employees and organizational commitment in hospitality industry. (Unpublish master's thesis. Afyon Kocatepe University).

İnanır, A., & Ucar, O. (2021). The effect of the local people's personality traits on their perception of tourism effects: The case of Antalya. *International Journal of Society Reseaces,* 17(38): 5161-5185.

İnanır, A., Gürsoy, S., & Sarı, S. (2017). Investigation of relationship between personality characteristics and organizational commitment of personnel in hotel establishments application on five-star hotels in Alanya. *Journal of International Multidisciplinary Academic Researches*, 4(1), 43-57.

Judge, T. A., & Cable, D. M. (1997). Applicant Personality Organizational Culture and Organizational Attraction. *Personal Psychology,* 50, 359-394.

Karabey, C. N., & İşcan, Ö. F. (2007). Organizational identification, organizational image and the relationship between organizational citizenship behaviour: An application. *Journal of Atatürk University Faculty of Economics and Administrative Sciences,* 21(2), 231-241.

Karakuş, Y., Onat, G., & Yetiş, Ş. A. (2018). Yöneticilerin, aşçıların yetkinliklerine yönelik beklentilerinin değerlendirilmesi. Journal of Tourism and Gastronomy Studies, 6(4), 299-321.

Kieffer, K. M., Schinka, J. A., & Curtiss, G. (2004). Person-environment congruence and personality domain in the prediction of job performance and work-quality. *Journal of Counseling Psychology,* 51 (2), 168-177.

Kouzes, J. M., & Posner, B. Z. (1987). *The leadership challenge.*Jossey-Bass: San Francisco.

Kristof, A. L. (1996). Person organization fit: An integrative review of its conceptualizations. measurement and implication. *Personal Psychology,* 49, 1-49.

Larsen, M. M., Esenaliev, D., Brück, T., & Boehnke, K. (2020). The connection between social cohesion and personality: A multilevel study in the Kyrgyz Republic. *International Journal of Psychology,* 55 (1), 42-51.

Mael, F., & Ashforth, B. E. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification.*Journal of Organizational Behavior,* 13, 103-123.

Marshall, G. N., Wortman, C. B., Vickers, R. R., Kusulas, J. W., & Hervig, L. K. (1994). The Five Factor Model of Personality as a Framework for Personality-Health Research.*Journal of Personality and Social Psychology,* 67(2), 278-286.

Martins, N. (2002). A model managing trust.*International Journal of Manpower*, 23(8), 754-769.

McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers.*Journal of Personality and Psychology,* 52(1), 81-90.

McCrae, R. R., & Costa, P. T. (1989). Reinterpreting the Myers-Briggs type indicator from the perspective of the five-factor model of personality.*Journal of Personality,* 57, 17-40.

McCrae, R. R., & Costa, P. T. (2003). *Personality in adulthood.* New York: The Guilford Press.

McCrae, R. R., & Costa, P. T. (2006). *Personality in adulthood a five-factor theory perspective*. New York: The Guildford Press.

Möllering, G., Bachmann, R., & Lee, S. H. (2004). Introduction understanding organizational trust-foundations, constellations, and issues of operationalization.*Journal of Managerial Psychology,* 19(6), 556-570.

Mooradian, T., Renzl, B., & Matzler, K. (2006). Who trusts? Personality, trust and knowledge sharing.*Management Learning,* 37(4), 523-540.

Mount, M. K., Barrick, M. R., Scullen, S. M., & Rounds, J. (2005). Higher-order dimensions of the big five personality traits and the big six vocational interest types.*Personnel Psychology,* 58, 447-478.

O'Reilly, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: a profile comparison approach to assessing person-organization fit. *Academy Management Journal*, 34, 487-516.

Ocak, S., Gider, Ö., Gider, N., & Top, M. (2017). Effects of personality traits on organizational commitment and organizational identification: A public hospital case. *Journal of Istanbul University Institute of Business Economics,* 28(82), 105-126.

Organ, D. W., & Ryan, K. (1995). A meta- analytic review of attitudinal and dispositional predictors of organizational citizenship behavior.*Personal Psychology,* 35, 1-62.

Ping, H., Mujtaba, B. G., Whetten, D. A., & Wei, Y. (2012). Leader personality characteristics and upward trust: a study of employee supervisor dyads in China.*The Journal of Applied Business Research,* 28(5), 1001-1016.

Pratt, M. G. (1998). To be or not to be: central question in organizational identification, Whetten, D. A. & Godfrey, P. C. (Ed.). *Identity in organizations: Building theory through conservation,* Thousand Oaks, CA: Sage Publications.

Rawlins, B. L. (2007). Trust and PR practice. *Institute for Public Relations,* 1-18.

Riketta, M. (2005). Organizational identification: a meta-analysis.*Journal of Vocational Behavior,* 66: 358-384.

Rothman, S., & Coetzer, E. P. (2003). The big five personality dimensions and job performance.*Journal of Industrial Psychology,* 29(1), 68-74.

Rotter, J. B. (1967). A New scale for the measurement of interpersonal trust.*Journal of Personality*, 35, 651-665.

Saldago, J. F. (1997). The five-factor model of personality and job performance in the European community.*Journal of Applied Psychology,* 82 (1), 30-43.

Saucier, G., & Goldberg, L. R. (2003). The Structure of personality attributes. Barrick MR, Ryan AM (Eds.), In: *Personality and Work* (1-29). Jossey Bass, San Francisco.

Sekaran, U. (2003). Research methods for business a skill-building approach. New York: John Wiley & Sons.

Şen, E., & Günaydın, İ. (2019). The effect of trust in manager on organizational identification in travel agencies.*Journal of Recreation and Tourism Research*, 6(1), 1-12.

Şimşek, Ö. F. (2007). Introduction to Structural Equation Modeling (Basic Principles and Lisrel Applications). Ankara: Ekinoks Yayınları.

Smith, E., Nolen-Hoeksema, S., Fredrickson, B. L., & Loftus, G. R. (2003). *Atkinson & Hilgard's Introduction to Psychology.*Thomson Learning Belmont USA: Theory Perspective. Guilford Press.

Smith, M. A., & Canger, J. M. (2004). Effects of supervisor big five personality on subordinate attitudes.*Journal of Business and Psychology,* 18(4), 465-481.

Stevens, C. D., & Ash, R. A. (2001). Selecting Employees for fit: personality and preferred managerial style.*Journal of Managerial Issues,* 13(4), 500-517.

Tajfel, H., & Turner, J. C. (1985). The social identity theory of intergroup behaviour. In: Worchel, S. E. & Austin, W. G. (Ed.). *Psychology of intergroup relations*, (pp. 7-24). Chicago: Nelson Hall.

Tan, H. H., & Tan, C. S. F. (2000). Towards the differentiation of trust in supervisor and trust in organization. *Genetic, Social, General Psychology Monographs,* 26(2), 241-260.

Taşcı, D., & Eroğlu, E. (2007). Evaluation of the relationship between the personality traits of managers and their frequency of persuasion and influence tactics. *Journal of Selçuk University Social Sciences Institute,* 17(1), 533-546.

Taşkın, Ç., & Akat, Ö. (2010). *Structural equation modeling in research methods.* Bursa: Ekin Yayınevi.

Topçu, M. K., & Basım, H. N. (2015). The role of psychological contract perception in the effect of personality traits of employees in smes on organizational identification and the turnover intention.*Turkish Studies,* 10(10), 861-886.

Tuna, T., & Yeşiltaş, M. (2014). The effect of ethical climate, alienation to work and organizational identification on the intention to quit: A research in hotel enterprises.*Anatolia: Journal of Tourism Research,* 25(1), 105-117.

Turban, D. B., & Keon, T. L. (1993). Organizational attractiveness: An interactionalist perspective.*Journal of Applied Psychology,* 78, 184-193.

Tüzün, I. K. (2006). Organizational trust, organizational identity and organizational identification relationship: An applied study. (Unpublish doctoral thesis. Gazi University).

Tüzün, İ. K., & Çağlar, İ. (2008). The concept of organizational identification and the relationships of organizational communication.*Journal of Yaşar University,* 3(9), 1011-1027.

Üngüren, E. (2019). Determining the discrimination level of personality traits of frontline employees on job performances.*Journal of Burdur Mehmet Akif Ersoy University Economics And Administrative Sciences Faculty,* 6(3), 768-795.

Valentine, S., Godkin, L., & Lucero, M. (2002). Ethical context, organizational commitment and person-organization fit.*Journal of Business Ethics,* 41, 349-360.

Vieira, L. A. (2011). Interactive LISREL in practice getting started with a SIMPLIS approach. London: Springer Inc. UK.

Welch, J. (2005). *Winning*. Harper Collins: New York.

Yarmacı, N., Karaçar, M., & Pelit, E. (2016). The effect of personality traits on organizational identification: A research on hotel business employees, 17th National Tourism Congress Proceedings Book. 20-23 October 2016, Bodrum, Muğla. 140-152.

Jomat

Journal of multidisciplinary academic tourism

ISSN: 2645-9078

2022, 7 (1): 41-53

https://doi.org/10.31822/jomat.2022-7-1-41

INFO PAGE

The effects of personality traits, organizational identification and trust in the manager at hotel organizations

Abstract

The aim of the research is to determine the effects of personality traits, organizational identification and trust in the manager at hotel organizations. This study has been carried out in January-June 2019 with employees in five-star hotels located in Antalya, one of the most common holiday destinations in Turkey. In this study, a quantitative research has been conducted and survey technique has been used. 375 questionnaires were analyzed. Research analyses have been performed with the help of SPSS package program and AMOS package program. Frequency analysis, factor analysis and structural equation modelling have been utilized on the study. As a result, openness to experience, conscientiousness and extraversion personality traits have a significant effect on organizational identification and openness to experience, conscientiousness and agreeableness have a significant effect on trust in the managers. In this context, it has been determined that the openness to experience and conscientiousness have a significant effect on organizational identification and trust in the managers. As well as organizational identification has a significant effect on trust in the manager. This research serves as a guide for hotel managers about employees. In this context, the fact that hotel managers prefer employees who are openness to experience and conscientiousness personality traits can benefit their organizations in the long term.

Keywords: *Hotel Organizations, Personality Traits , Organizational Identification, Trust in the Manager, Antalya*

Authors

Full Name	Author contribution roles	Contribution rate
Ali İnanır :	*Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing,*	*100%*

Author statement: *Author(s) declare(s) that All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.* ***Declaration of Conflicting Interests:*** *The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article*

This paper does not required ethics committee report
Justification: This research was conducted before January 1, 2020. For this reason, it is exempt from "ULAKBIM TRDizin" criterion.

Jomat
Journal of multidisciplinary academic tourism
2022, 7 (1): 55-65
www.jomat.org
ISSN: 2645-9078

The nexus between tourism and international service trade in the coronavirus pandemic: Evidence from Turkey

Ayberk Şeker

Keywords:
*Service Exports,
Tourism Industry,
COVID-19,
Gregory-Hansen Cointegration Test,
VEC Granger Causality Test*

Article History:
Submitted: 28.06.2021
Accepted: 11.11.2021

ABSTRACT

Coronavirus (COVID-19) pandemic has affected all economic processes as well as the tourism industry and service exports. COVID-19 pandemic affects negatively not only in the production and manufacturing industry, but also has caused important problems in the service and tourism sector. The paper aims to determine the effects of tourism revenues, international tourist arrivals and COVID-19 pandemic on service exports and the tourism industry. In line with the results, there is a long-term relationship among tourism revenues, international tourist arrivals, exchange rates, and service exports. According to FMOLS and DOLS results, an increase in the tourism revenues, international tourist arrivals and exchange rates ensure raising service exports of Turkey. However, it is determined that COVID-19 pandemic lead to decreasing service exports of Turkey. In addition, Granger causality analysis revealed that there is a unidirectional causality relationship from exchange rates to international tourist arrivals in Turkey. On the other hand, it is determined that there are bidirectional causality relationships between tourism revenues and service exports, international tourist arrivals and service exports, international tourist arrivals and tourism revenues. Results of the analysis indicate that service exports of Turkey follows a rising trend and it can be reduced the effects of COVID-19 pandemic when development of tourism infrastructure and quality raises.

Doi: https://doi.org/10.31822/jomat.2022-7-1-55

1. Introduction

Tourism can be defined as the spatial separation between home and distant place and travel between these two places in its simplest definition (Holden, 2006, p. 11). With a broader definition, tourism is the whole of the relationships that result from both the temporary stay and traveling of people for various reasons and their travels (Pearce, 1995, p. 20). Individuals decide on their destination and the types of services that they will benefit from in line with their own preferences and expectations. Thus, they shape the tourism supply in the regions over time. In accordance with all these definitions, tourism has become one of the basic research topics of social sciences today due to its substantial effects on both the economy and people's lives.

Tourism revenues are important for national income and they have a multiplier effect on the national economy. Therefore, this multiplier effect has a positive effect on the economy and supports many industries (Freitas, 2003, p. 45; Proenca & Soukiazis, 2005; Sengupta & Espana, 1994). In many countries, tourism constitutes an important part of economic growth and business. In addition, inflows of foreign currency to the countries through tourism enable to close the budget deficit of the countries and create a great advantage in solving the unemployment problem. On the other hand, the tourism industry ensures the interaction of different cultures. For this reason, cultural institutions and consumption habits of the countries also change via the effect of international tourism. These differences provide an increase in entrepreneurial activities in tourism and bring new investments in entrepreneurial activities that gain positive acceleration. In addition, the tourism industry affects the development of many sectors directly or indirectly (Kitson, Martin, & Tyler, 2004).

One of the main problems of developing countries is unemployment. Since the tourism industry, which is an important sector for the reduction of this problem, is low in cost, investments in this area can be higher than other industries. In addition, tourism does not only provide employment for countries, but also it is important to allow in terms of inflows of foreign currency to

Research paper

Ayberk Şeker: *Asst. Prof. Dr., Bursa Technical University, Bursa, Turkey, Email: ayberk.seker@btu.edu.tr,*
Orcid Id: 0000-0001-7750-6286

the countries. In order to reach the level of developed countries, international tourism demand in developing countries is constantly increasing and it shows rapid development. At the same time, the tourism industry gets great support in order to meet the economic resources, foreign currency requirements and the expectations of the constantly increasing population in these countries. For these reasons, tourism is regarded as an important industry that provides large employment and plays a crucial role in economic growth and development (Holden, 2006, p. 90).

International tourism is an important industry for countries due to its large employment opportunities and foreign currency earning effects. The tourism industry plays a vital role, especially for developing countries, due to its role in reducing the negative impact on the current account balance (Cihangir, Erkan, & Harbalıoglu, 2014, p. 48). Besides the contribution of international tourist arrival to the country's economy, it is also a substantial factor in the formation of regional developments. Inflows of foreign currency to the countries increase, the balance of payments and foreign trade deficit decrease, the foreign debts of the country diminishes and the level of demands for goods and services in other sectors increases with the development of the tourism industry in a region.

The service export volume, which was 1.7 trillion dollars in the early 2000s, has increased to 6.2 trillion dollars in 2019. International tourism revenues, which were around 485 billion dollars at the beginning of the 2000s, has reached 1.7 trillion dollars by 2018. On the other hand, it is seen that the International tourist arrivals of 533 million people at the beginning of the 2000, has reached 1.4 billion people today in the world (World Bank, 2021). As it can be seen, the international tourism and travel industry, which is one of the most important sub-items of service exports, has an important place in terms of both increasing the employment level and narrowing the foreign trade deficit. Therefore, considering the potential of future tourism dynamism, significant investments in the tourism sector reveals that countries will realize a considerable increase in income and service exports.

Considering the tourism industry in Turkey, it is observed that international tourism receipts have reached 37 billion dollars today whereas it was about 5 billion dollars in the early 2000s. In addition to this, it is seen that service exports were around 14.6 billion dollars in the early 2000s, while today it has reached 64.6 billion dollars. When the data on the tourism industry are analyzed, it is observed that international tourism revenues constitute one third of service exports in the 2000s, while it constitutes more than half in today. Accordingly, the importance of international tourism for Turkey has occurred more clearly. In addition, it is seen that the number of international tourists arriving was around 7 million in 2000, while it has reached 46 million today (TURKSTAT, 2021).

COVID-19 pandemic has significantly affected the international service trade and tourism industry today. It is observed that service and tourism sector activities realized through interaction between people are negatively affected. In this regard, it is essential to investigate the effects of the COVID-19 pandemic on the international service trade and tourism sector.

While COVID-19 pandemic caused the biggest economic crisis of the century on a global scale, tourism was one of the sectors most negatively affected by this process. All the data released regarding tourism clearly reveal the magnitude of the loss in the sector. Travel movements have been stopped gradually since December 2019, when the COVID-19 pandemic started. In the first place, almost all international flights were suspended with the spread of the COVID-19 pandemic together with the restrictions imposed on travel movements in countries affected by the pandemic (Qunhui, 2020). According to the evaluation made by the United Nations World Tourism Organization (UNWTO), the damage caused by COVID-19 to the tourism industry increased 8 times that of the global economic crisis in 2008.

The tourism sector is a sector that responds positively or negatively to the economic and social developments in terms of its structure. While attractive places in different destinations, natural and historical artifacts, cultural and religious elements become a center of attraction and source of income for tourism, factors such as terrorist attacks, political adversities, pandemics can lead to changes in travel plans or cancellation of reservations. Political troubles or terrorist attacks are mostly specific to regions or countries, whereas the effects of pandemics are seen in more than one region or country. The interest and confidence in the destinations where such negative developments are experienced can be seriously diminished.

As international travel is restricted, it is inevitable that the COVID-19 pandemic will affect all tourism activities at the international level. The contact of people with each other has been the greatest source of spread of the virus and it has dealt a big blow to travel activities. In this case, it is clear that companies in the tourism sector will be suffered the most from COVID-19 pandemic.

Along with the coronavirus pandemic, it is seen that these positive developments in the tourism industry have slowed down or even interrupted. The decrease in mobility at the international level has caused a significant decline in the revenues from the tourism industry. In this direction, it is important examining the effects of the coronavirus pandemic on service exports and the tourism industry, analyzing empirically and making policy recommendations in line with solutions.

Analyzing the effects of the pandemic on the service exports and tourism sector will make significant contributions to the literature, which examines the effects of the COVID-19 pandemic on the tourism industry that has an important place in the service sector. It is important to determine the long-term effects and causality relationships of COVID-19 cases and deaths on the service trade and tourism sector in order to reduce the negative effects of the pandemic and to evaluate the opportunities. It is thought that the findings obtained by the analysis will guide the measures to be taken and the policies to be implemented in the COVID-19 pandemic process. In this direction, the main focus of the study is to reveal the effects of the COVID-19 pandemic on service exports and the tourism industry and to make future policy recommendations.

In this study, it is aimed to determine the effects of tourism revenues, international tourist arrivals and COVID-19 pandemic on service exports and tourism industry. In order to establish the service exports and tourism industry model for Turkey, international tourism revenues, international tourist arrivals, exchange rates, COVID-19 in Turkey will be used as variables. In the following section, the effects of the variables defined in the research model on service exports and tourism are discussed within the scope of the literature. Then, the theoretical explanations regarding unit root test, cointegration test, causality test and long-term coefficient estimates for the variables are presented in the methodology section. The findings obtained as a result of analyzes are discussed in line with the literature in the empirical results section. Afterwards, the theoretical and empirical results obtained from the analyzes are comprehensively evaluated in the conclusion and discussion section.

2. Literature Review

International service trade has great importance for countries today. The service sector has a greater share in the sectoral distribution of both gross domestic product and employment. Along with the liberalization of international trade, it is seen that competition has increased and service trade has become increasingly important.

The service sector is a branch of industry that provides some changes to the beneficiary of the service or for his benefit and creates benefits such as time and space. Services are produced by the service provider's providing benefits for the service user, the service client's showing the necessary effort to produce the service, and the service client and the producer being in mutual interaction (Aslan, 1998, p. 9). Conjunction with the twentieth century, it is seen that the service sector surpassed other industries and it made significant contributions to economic development. In addition, it is observed that the service sector is more developed in countries with high welfare levels. Accordingly, it has emerged that the service sector is extremely important for increasing the welfare level in developing countries.

Tourism has an important place in the service sector. International tourism plays an important role in providing foreign currency inflow to the country, financing economic growth and solving macroeconomic problems such as unemployment. However, the tourism sector also provides the interaction of people though different cultures. These positive effects ensure the increase of entrepreneurial activities in the tourism sector and the realization of new investments in tourism (Belk & Costa, 1995). However, there are significant contractions in the tourism sector as in every field because of the profound effects of the current COVID-19 pandemic. In this direction, it has been observed that there is a need for studies in the academic literature investigating the effects of the COVID-19 pandemic and tourism on international service exports. It is aimed to make significant contributions to the literature by empirically investigating the effects of the COVID-19 pandemic and tourism on international service exports via this study.

Service trade is important within the scope of international trade of countries. Especially by the globalization process, the country's economies have become open to international competition, and then the service sector has also developed significantly. Tourism has an important place in the development of both the international trade and service sector (Ekinci, 2005). It is expected that tourism activities between countries increase in consequence of the increase in commercial relations among the countries in tourism as a service sector. In academic studies, it is revealed that there is a positive relationship between international trade activities and the tourism sector among the countries (Bahar & Baldemir, 2008; Chang, 2011; Vu & Turner, 2009).

Exchange rate is one of the important factors affecting the international service trade and tourism sector. As in the international commodity trade of countries, international service trade is also affected by exchange rate volatility. It is expected that there is an increase in international service trade when the exchange rate rises and the local country currency depreciates. This increases the trade volume of the service sector in which tourism is involved. Studies in the literature show that there are significant effects between exchange rate and international service trade (Baggs, Beaulieu, & Fung, 2010; Sahoo, 2018).

The COVID-19, which emerged in Wuhan, China in 2020, became a pandemic soon and had significant effects on the international economy (Feyisa, 2020; Ruiz Estrada, Park, & Lee, 2020). With the COVID-19 pandemic, some problems have emerged in the global supply chain and international trade network, and a global supply and demand shock has been experienced. Accordingly, global political, economic and social uncertainties and risks may negatively affect the service sector, including tourism (Polat, Alptürk, & Gürsoy, 2021; Akdağ & İskenderoğlu, 2021). The service sector facilitates the spread of the virus in the global pandemic due to the interaction between individuals during the service activities process. Therefore, services trade is directly affected by the constraints in the pandemic. It is seen that COVID-19 pandemic is greatly adversely affecting international services trade, especially the tourism sector (Hu, 2020; Kabadayi, O'Connor, & Tuzovic, 2020; Kumudumali, 2020; Ozili & Arun, 2020; Priyanto, Purnomo, Andoko, Khairina, & Fadhlurrohman, 2020; Shretta, 2020; Xin, 2021). Many tourism-related sectors have adversely affected because of the uncertainty caused by the COVID-19 pandemic, the cancellation of tourism reservations, and the prohibitions imposed by countries on international flights. Due to the coronavirus pandemic, countries that host the most tourists were negatively affected economically such as France, Spain, United States of America, China and Italy. There are important losses with the global pandemic in the income of the tourism sector and service trade, which are of great importance economically for developing countries (Sarıkaya & Çeviş, 2020). Turkey was affected negatively by the COVID-19 pandemic in terms of the income of tourism and service trade like other developing countries. Accordingly, it is crucial to investigate the effects of the COVID-19 pandemic on service trade and to offer solutions for the problems.

Considering the significant effects of COVID-19 pandemic on the service trade and tourism sector, it is important to investigate the solutions of problems in the service trade and tourism sector in Turkey. This study aims to determine the effects of tourism revenues, international tourist arrivals and COVID-19 pandemic on service exports and the tourism industry and to contribute empirically to the literature.

3. Methodology

The aim of this paper is to determine the effects of tourism revenues, international tourist arrivals and COVID-19 pandemic on service exports and the tourism industry. In order to create the research model in the study, data on service exports, tourism revenues, international tourist arrivals, exchange rate, COVID-19 dummy variable in Turkey are used.

Data on service trade and exchange rates are obtained from the database of the Central Bank of the Republic of Turkey Electronic Data Delivery System. In addition, data of tourism revenues and international tourist arrivals are gained from the Turkish Statistical Institute. Series used in the study are monthly between 2016 and 2020. The information about the variables used in the study is as follows:

$ln(service)$: Service exports of Turkey

$ln(revenue)$: Tourism revenues of Turkey

$ln(arrivals)$: International tourist arrivals to Turkey

$ln(exchange)$: Exchange rates of Turkey

$covid19$: Dummy variable of COVID-19

Table 1: Descriptive Statistics

	$ln(service)$	$ln(revenue)$	$ln(arrivals)$	$ln(exchange)$
Mean	4.27E+09	2.15E+09	3133815	4.793
Median	3.96E+09	1.81E+09	2679420	4.637
Maximum	7.78E+09	5.24E+09	8167150	8.018
Minimum	1.27E+09	5.61E+08	24238	2.839
Std. Deviation	1.49E+09	1.11E+09	1806529	1.489
Skewness	0.363	0.876	0.762	0.358
Kurtosis	2.711	2.975	3.113	1.945
Jarque-Berra	1.502	7.541	5.738	3.996
Probability	0.472	0.023	0.057	0.136
Observations	60	60	60	60

Source: *Author*

Depending on this information, the times series models have been created for Turkey to determine the effects of tourism revenues, international tourist arrivals and COVID-19 pandemic on service exports (1):

$$ln(service)_t = \beta_0 + \beta_1 ln(revenue)_t + \beta_2 ln(arrivals)_t + \beta_3 ln(exchange)_t + \beta_4 (covid19)_t + \varepsilon \quad (1)$$

Before analyzing the relationship between tourism and service exports for Turkey during the pandemic period, descriptive statistics for the variables within the scope of the paper were examined and the findings are shown in Table 1, Table 2 and Figure 1. According to the findings in the Table 1, the average service export value in Turkey is 4.2 Billion $, tourism income is 2.1 Billion $, the average number of international tourist arrivals are 3 million people and the exchange rate is 4.8 $ based on monthly data in the period of 2016-2020. The high standard deviation of the variables indicates that the volatility of these variables is high. The degree of volatility can also be seen by considering the maximum and minimum values.

Table 2: Correlation Matrix

	$ln(service)$	$ln(revenue)$	$ln(arrivals)$	$ln(exchange)$
$ln(service)$	1	0.944	0.954	-0.052
$ln(revenue)$	0.944	1	0.989	0.018
$ln(arrivals)$	0.954	0.989	1	0.002
$ln(exchange)$	-0.052	0.018	0.002	1

Source: *Author*

Table 2 shows the correlation relationships between the variables. According to the results of the analysis, there is a positive and high correlation between service exports and tourism revenues and the number of international tourist arrivals, while there is a negative and low correlation between service exports and exchange rate. In addition, it is also seen that exchange rate has positive and low correlation relationships between tourism revenues and international tourist arrivals.

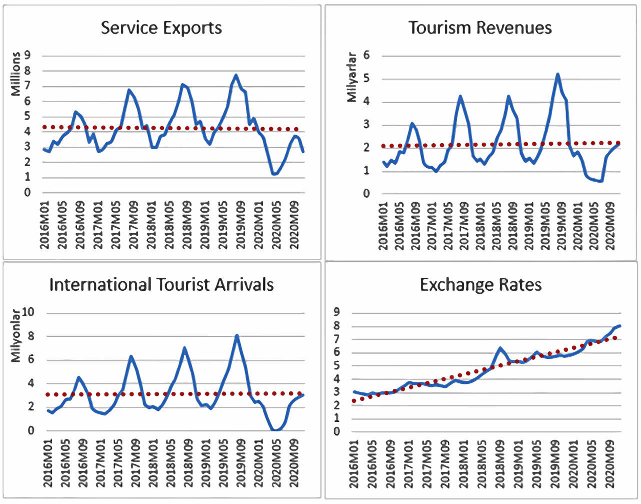

Figure 1: Trends of Variables Between 2016 and 2020
Source: *Author*

Trends of variables in the model are given in Figure 1. When the trends regarding the variables are analyzed, it is observed that service exports, tourism revenues and international tourist arrivals follow a trend that maintains its level despite the uncertainties and risks in the COVID-19 pandemic. Furthermore, it is seen that the exchange rate has an increasing trend and this trend continues with the COVID-19 pandemic.

After the descriptive statistics, the stationarities of the variables were analyzed by means of Augmented Dickey-Fuller (ADF) unit root test, Phillips-Perron (PP) unit root test and Zivot and Andrews unit root test with a structural break. Then, the long-term relationships between variables were examined using the Gregory-Hansen cointegration test with structural break. Later, causality relationships between variables were investigated via the Granger causality test.

Finally, long-term coefficient estimates of variables were made by way of FMOLS and DOLS.

In order to examine the relationships between variables, they should not contain unit root in the levels or first differences of the variables. The stationarity of the series was tested by Augmented Dickey Fuller (ADF) unit root test (Dickey & Fuller, 1979, 1981), Phillips & Perron (PP) unit root test (Phillips & Perron, 1988), Zivot and Andrews (1992) unit root test with a structural break. Augmented Dickey Fuller (ADF) (2) unit root test, Phillips and Perron (PP) (3) unit root test, Zivot and Andrews (Z&A) unit root test with a structural break in model A and model C (4, 5) are performed in accordance with the models shown below:

$$\Delta y_t = \alpha + \theta y_{t-1} + y_1 \Delta y_{t-1} + \varepsilon_t \tag{2}$$

$$\Delta y_t = \alpha y_{t-1} + x_t' \delta + \varepsilon_t \tag{3}$$

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \theta DU_t + \sum_{i=1}^{m} \alpha_i \Delta Y_{t-i} + \varepsilon_t \tag{4}$$

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \theta DU_t + \gamma DT_t + \sum_{i=1}^{m} \alpha_i \Delta Y_{t-i} + \varepsilon_t \tag{5}$$

It is known that one of the reasons for non-stationary variables is the structural breaks in the economy in the time series analysis performed. It is thought that structural breaks that develop in the economy may distort the averages, trends, or both averages and trends of the series. In other words, unit root tests that do not take into account structural breaks can give results that the series are stationary even if they do not contain unit root. It is stated that the results of traditional unit root tests that take structural breaks do not take into account may be deviated and wrong results may be reached in the analysis of structural breaks and economic shocks in an economy. Therefore, the Zivot and Andrews (1992) unit root test, which takes into account the structural break internally, was used in the study. In the analysis, model A tests only a break in the constant and model C tests a break in both a constant and trend.

The application of tests considering the structural breaks provides results that are more valid in order to analyze the long-term relationships of the series when analyzing the long-term relationships between the variables in the model. Gregory-Hansen (1996) cointegration test is a developed version of Engle and Granger (1987) approach and it shows more valid results than this test. The most important reason for this is that the structural break dates are determined endogenously in the Gregory-Hansen cointegration test. In the cointegration test developed by Gregory-Hansen, there have been put forward three models that consider structural break. The first model takes into account the structural break at the level (6) and the second model considers the structural break with the trend (7) (Gregory & Hansen, 1996, p. 103). α_1, α_2, α_3 and α_4 indicate the cointegration slope coefficients before the regime shift.

$$y_t = \mu_1 + \mu_2 \varphi_t + \alpha_1 x_t + \alpha_2 z_t + \alpha_3 e_t + \alpha_4 s_t + \varepsilon_t \tag{6}$$

$$y_t = \mu_1 + \mu_2 \varphi_t + \beta_t + \alpha_1 x_t + \alpha_2 z_t + \alpha_3 e_t + \alpha_4 s_t + \varepsilon_t \tag{7}$$

After proving that there is a long-term relationship between the variables in the research model, there will be tested the causality relationships between the variables. Engle and Granger (1987) argue that there is a unidirectional causality relationship between variables at least, in the case that long-term relationships are determined between variables. Granger causality analysis is performed by means of the following equations (8, 9, 10, 11):

Long-term coefficients of variables were tested using the "Fully Modified Least Squares Method (FMOLS)" developed by Phillips and Hansen

$$\Delta \ln(service)_t = \beta_1 + \sum_{i=1}^{l} \beta_{11} \Delta \ln(service)_{t-i} + \sum_{j=1}^{m} \beta_{22} \Delta \ln(revenue)_{t-j} + \sum_{k=1}^{n} \beta_{33} \Delta \ln(arrivals)_{t-k} + \sum_{r=1}^{o} \beta_{44} \Delta \ln(exchange)_{t-r} + \eta_1 ECT_{t-1} + u_{1i} \tag{8}$$

$$\Delta \ln(revenue)_t = \alpha_1 + \sum_{i=1}^{l} \alpha_{11} \Delta \ln(revenue)_{t-i} + \sum_{j=1}^{m} \alpha_{22} \Delta \ln(service)_{t-j} + \sum_{k=1}^{n} \alpha_{33} \Delta \ln(arrivals)_{t-k} + \sum_{r=1}^{o} \alpha_{44} \Delta \ln(exchange)_{t-r} + \eta_2 ECT_{t-1} + u_{2i} \tag{9}$$

$$\Delta \ln(arrivals)_t = \phi_1 + \sum_{i=1}^{l} \phi_{11} \Delta \ln(arrivals)_{t-i} + \sum_{j=1}^{m} \phi_{22} \Delta \ln(revenue)_{t-j} + \sum_{k=1}^{n} \phi_{33} \Delta \ln(service)_{t-k} + \sum_{r=1}^{o} \phi_{44} \Delta \ln(exchange)_{t-r} + \eta_3 ECT_{t-1} + u_{3i} \tag{10}$$

$$\Delta \ln(exchange)_t = \delta_1 + \sum_{i=1}^{l} \delta_{11} \Delta \ln(exchange)_{t-i} + \sum_{j=1}^{m} \delta_{22} \Delta \ln(arrivals)_{t-j} + \sum_{k=1}^{n} \delta_{33} \Delta \ln(revenue)_{t-k} + \sum_{r=1}^{o} \delta_{44} \Delta \ln(service)_{t-r} + \eta_4 ECT_{t-1} + u_{3i} \tag{11}$$

(1990) and the "Dynamic Ordinary Least Squares Method (DOLS)" introduced by Saikkonen (1992), Stock and Watson (1993) within the scope of the study. Equations used in FMOLS and DOLS estimation methods are as follows (12, 13):

$$Y_t = X'_t\beta + D'_{1t}\gamma_1 + u_{1t} \tag{12}$$

$$Y_t = X'_t\beta + D'_{1t}\gamma_1 + \sum_{j=-q}^{r} \Delta X'_{t+j^{\delta}} + v_{1t} \tag{13}$$

4. Empirical Results

In line with the theoretical explanations presented in the methodology section, firstly, the unit root analysis of the variables are carried out. As mentioned earlier, Zivot and Andrews (1992) unit root test with one structural break were performed together with Augmented Dickey Fuller (ADF) and Phillips & Perron (PP) unit root analyzes.

Table 3: Augmented Dickey Fuller (ADF) and Phillips & Perron (PP) Unit Root Test Results

Test	Variables	Augmented Dickey Fuller (ADF)		Phillips & Perron (PP)	
		I	I +T	I	I +T
Level	ln(service)	-0.485	-0.071	-1.379	-1.289
	ln(revenue)	-1.161	-0.289	-1.904	-1.124
	ln(arrivals)	-1.656	-1.546	-2.041	-3.103
	ln(exchange)	-0.156	-3.121	-0.435	-2.865
First Difference	ln(service)	-4.514***	-4.896***	-9.661***	-12.682***
	ln(revenue)	-4.972***	-5.312***	-15.152***	-17.467***
	ln(arrivals)	-4.649***	-4.669***	-15.997***	-14.199***
	ln(exchange)	-6.123***	-6.083***	-4.776***	-6.166***

*Note: "I" stands for constant term, "I + T" represents constant and trend. ***, **, and * indicate significance at 1 %, 5 % and 10 % respectively.*
Source: *Author*

In line with the results in Table 3, it is determined that service exports, tourism revenues, international tourist arrivals and exchange rates are not stationary in their levels. In other words, they have a unit root in level. However, it is seen that all variables are stationary in the first differences of the series.

Table 4 contains the results of the Zivot and Andrews (1992) unit root test, which tests the stationarity of the variables in the model with a structural break. According to the test results, it is revealed that service exports, tourism revenues, international tourist arrivals and exchange rates have a unit root, in other words, they are not stationary at their level with a structural break. However, it is determined that series are stationary at the first difference level.

Considering the structural break dates in the series, it is observed that structural breaks have occurred in service exports, tourism revenues and international tourist arrivals in February, March and May in 2020. These results show that service trade and tourism are affected by recession in both national and global economies because of COVID-19 pandemic. Due to the restrictions of the COVID-19 that emerged in early 2020, service exports are adversely affected, especially tourism.

Table 5: Gregory-Hansen Cointegration Test Results

Model	Break Date	ADF Statistics	%1 Critical Value	%5 Critical Value
C	2020M02	-6.32***	-5.77	-5.28
C/T	2020M02	-6.32***	-6.05	-5.57
R	2019M04	-7.43***	-6.51	-6.00
R/T	2019M03	-7.48***	-6.89	-6.32

*Note: ***, **, and * indicate significance at 1 %, 5 % and 10 % respectively.*
Source: *Author*

In line with the results of the Gregory-Hansen cointegration test, it is seen in the research model that there is a structural break in February 2020, when the first signs of COVID-19 were detected. In the research model, the null hypothesis that there is no cointegration relationship between the variables is rejected because absolute values of

Table 4: Zivot and Andrews (1992) Unit Root Test Results

Variables	Z&A (Level)			Z&A (First Difference)			
	Break Date	k	Statistic	Break Date	k	Statistic	Model
$ln(service)$	2020M02	10	-2.425	2020M03	10	-10.439***	A
	2020M03	0	-3.582	2020M03	10	-16.901***	C
$ln(revenue)$	2020M02	9	-2.535	2020M02	10	-7.384***	A
	2016M11	3	-4.365	2020M02	10	-7.895***	C
$ln(arrivals)$	2020M05	2	0.829	2020M04	9	-8.038***	A
	2019M07	1	-4.051	2020M03	10	-29.832***	C
$ln(exchange)$	2018M03	2	-1.939	2018M08	1	-8.309***	A
	2018M07	3	-4.476	2018M08	1	-8.719***	C
Critical Values	Model A => %10 : -4.194 ; %5 : -4.444 ; %1 : -4.949 Model C => %10 : -4.894 ; %5 : -5.176 ; %1 : -5.719						

*Note: ***, **, and * indicate significance at 1 %, 5 % and 10 % respectively.*
Source: *Author*

ADF test statistics are higher than 1% and 5% critical value. In other words, it is demonstrated that there is a long-term relationship between service exports, tourism revenues, international tourist arrivals, exchange rates and COVID-19 pandemic. At the same time, it is seen that the structural break dates obtained as a result of the cointegration analysis coincide with the results of Zivot-Andrews unit root test.

Table 6: VEC Granger Causality Test Results

Causality Direction	Chi-Sq	Probability
$ln(revenue) \nRightarrow ln(service)$	57.328***	0.000
$ln(service) \nRightarrow ln(revenue)$	16.485**	0.021
$ln(arrivals) \nRightarrow ln(service)$	24.911***	0.001
$ln(service) \nRightarrow ln(arrivals)$	70.851***	0.000
$ln(exchange) \nRightarrow ln(service)$	11.743	0.109
$ln(service) \nRightarrow ln(exchange)$	4.346	0.739
$ln(arrivals) \nRightarrow ln(revenue)$	36.555***	0.000
$ln(revenue) \nRightarrow ln(arrivals)$	73.817***	0.000
$ln(exchange) \nRightarrow ln(revenue)$	3.058	0.879
$ln(revenue) \nRightarrow ln(exchange)$	3.922	0.789
$ln(exchange) \nRightarrow ln(arrivals)$	22.851***	0.002
$ln(arrivals) \nRightarrow ln(exchange)$	2.364	0.937

*Note: ***, **, and * indicate significance at 1 %, 5 % and 10 % respectively. Optimal lags are chosen "7" according to AIC, SIC and HQ.*
Source: *Author*

When the Granger causality test results are examined, it is determined that there are important causality relationships between the variables. According to the results of the analysis, it is determined that there are bidirectional causality relationships between tourism revenues and service exports, international tourist arrivals and service exports, international tourist arrivals and tourism revenues. In addition to this, it is revealed that there is a unidirectional causality relationship from exchange rates to international tourist arrivals.

Long-term coefficient estimates and the results of the analysis are shown in Table 7. According to the analysis, it is seen that the coefficients that reveal the effects of the tourism revenues, international tourist arrivals and exchange rates on the service exports are positive and statistically significant as a result of both estimation methods. On the other hand, it is revealed that the COVID-19 pandemic has negative effects on Turkish economy, as well as on service exports, including the tourism sector. The findings show that COVID-19 pandemic has negative impacts on service exports, and preventive policies should be produced in order to overcome this crisis in the tourism sector.

5. Results and Discussions

The COVID-19 pandemic has caused significant problems in manufacturing, international trade and the global supply chain. COVID-19 pandemic affects negatively not only in the production and manufacturing industry, but also has caused important problems in the service and tourism sector.

Tourism is a sector in which people are in close contact with each other and service users and providers come together during the service activities. Increasing restrictions and decreasing contact between people have negatively affected the tourism sector and tourism-based industries such as transportation and logistics during the pandemic process, as stated by Hu (2020) Kabadayi, O'Connor, and Tuzovic (2020), Kumudumali (2020), Ozili and Arun (2020), Priyanto, Purnomo, Andoko, Khairina, & Fadhlurrohman (2020), Shretta (2020) and Xin (2021). Because, the high level of contact and interaction of people causes the virus to be transmitted and makes it easier to spread during the service activities. The findings obtained as a result of the paper reveal that the COVID-19 pandemic has negatively affected international service exports. In this direction, important steps are taken to ensure continuity in the service sector such as safe tourism and accommodation certificates in the tourism sector. In addition, transportation activities are tried to be continued by reducing the transport capacities in the transportation sector. Accordingly, it is a vital necessity to ensure the continuation of activities in

Table 7: Long-Term Coefficient Estimation Results

Model => $ln(service)_t = \beta_0 + \beta_1 ln(revenue)_t + \beta_2 ln(arrivals)_t + \beta_3 ln(exchange)_t + \beta_4 (covid19)_t + \varepsilon$				
	FMOLS		DOLS	
Variables	Coefficient	T Statistics	Coefficient	T Statistics
$ln(revenue)$	0.421***	9.851	0.379***	6.414
$ln(arrivals)$	0.118***	5.339	0.142***	4.644
$ln(exchange)$	0.133**	2.407	0.155**	2.045
$(covid19)$	-0.211***	-4.232	-0.193***	-2.794
Constant	11.223***	16.495	11.722***	12.463

*Note: ***, **, and * indicate significance at 1 %, 5 % and 10 % respectively.*
Source: *Author*

the service sector, which has an important place in the financing of countries' foreign trade deficits.

Considering the global impacts of the COVID-19 pandemic, it is clear that the policy measures to be taken against the crisis should be on a global scale. In the solution of economic problems caused by the COVID-19 pandemic, the implementation of coordinated policies of countries is of great importance to reduce economic losses. Otherwise, there will be significant macroeconomic problems such as the shrinkage of international goods and services trade, negative effects on the tourism sector and unemployment as a result of the increasing effects of the coronavirus pandemic. Evaluating the results of the analysis, it is seen that the increase in tourism sector incomes and the realization of foreign exchange inflow to the country have a positive effect on international service trade similar to the findings of Ekinci (2005) and Belk and Costa (1995).

The COVID-19 pandemic has different meanings compared to the economic crises that have occurred in the past. Today, the level of globalization has reached the highest point, the interdependence of countries has increased, but important problems have arisen in the global supply and supply chain due to the coronavirus pandemic.

Although the scale of the coronavirus pandemic is still unpredictable, the number of people affected by the virus is uncertain yet. Since the measures to prevent the transmission and spread of the virus negatively affect the economy, it is currently not possible to predict how and for how long it will affect the global economy. It is estimated that the psychological effects will continue for a few years even after the coronavirus pandemic is over. People abandoned or changed many of their habits with the pandemic and the measures taken with it. Whether abandoned or changed habits will return to pre-pandemic will depend on the psychological impact of pandemic on people.

In line with the changing habits after the COVID-19 pandemic, it is expected that the service trade and tourism sector are deeply affected. Because, both sectors contain activities where interaction takes place among the people. Therefore, it is expected that there will be significant differences in people's preferences to get back together and attend tourism activities after the coronavirus pandemic. It is substantial to investigate these effects that may occur in the post-pandemic process in future academic studies and to take early measures for the problems that may arise in regards to overcome the negative effects in the pandemic process.

6. Conclusion

In this paper, the effects of tourism revenues, international tourist arrivals and COVID-19 pandemic on service exports and the tourism industry have been analyzed for Turkey. The paper also investigates the effect of macroeconomic indicators of Turkey in terms of service export performance. As long as Turkey has tourism potential, it is seen that they are going to have substantial service export volume. Therefore, the study contributes to theoretical and empirical literature of service trade and tourism industry because having tourism revenues and international tourist arrivals contains service export advantages. However, it is revealed that COVID-19 pandemic has negative effects on service exports.

Long-term relations among tourism revenues, international tourist arrivals, exchange rates and service exports of Turkey is tested via Gregory-Hansen cointegration method in the study. Gregory-Hansen cointegration method allows estimating long-term relationships among the variables. In addition to this, causality relationship among the variables by Granger causality methods in the study is examined. Moreover, long-term coefficient estimates of variables are estimated by way of FMOLS and DOLS methods. These empirical approaches give new perspectives to analyze relationships among tourism revenues, international tourist arrivals, exchange rates, COVID-19 pandemic and service exports.

First, Gregory-Hansen cointegration analysis is performed in order to determine the long-term relations between the variables. In line with the results, it has been determined that there is a long-term relationship among tourism revenues, international tourist arrivals, exchange rates, COVID-19 pandemic and service exports. According to FMOLS and DOLS results, an increase in the tourism revenues, international tourist arrivals and exchange rates ensure raising service exports of Turkey. However, it is determined that the COVID-19 pandemic lead to decreasing service exports of Turkey. Thus, it has been reached the conclusion that positive effects of tourism revenues and international tourist arrivals on the service export of Turkey will be higher if the tourism industry quality and right investments of Turkey are more enhanced.

According to the results of Granger causality analysis, it is determined that there are bidirectional causality relationship between tourism revenues and service exports, international tourist arrivals and service exports, international tourist arrivals and tourism revenues in Turkey. On the other hand, there is a unidirectional causality relationship from exchange rates to service exports. Results of the analysis performed in line with the research hypothesis indicates that service exports of Turkey will follow a rising trend if tourism revenue, international tourist arrivals and exchange rate rise. In this direction, it is important for further studies to analyze the relationship between international service trade and tourism of countries for the period of COVID-19 pandemic and the period after it, both in Turkey and in countries with high tourism potential.

References

Akdağ, S., & İskenderoğlu, Ö. (2021). The impact of global uncertainty and risks on the global tourism index. *Journal of Tourism Theory and Research, 7*(2), 70-76.

Aslan, H. M. (1998). *Hizmet ekonomisi*. İstanbul: Alfa Basım Yayım Dağıtım.

Baggs, J., Beaulieu, E., & Fung, L. (2010). Are service firms affected by exchange rate movements?. *Review of Income and Wealth, 56*(1), 156-176.

Bahar, O., & Baldemir, E. (2008). Uluslararası ticaret ile uluslararası turizm arasındaki nedensellik ilişkisi: Türkiye örneği. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 10*(4), 97-111.

Belk, R. W., & Costa, J. A. (1995). International tourism: An assessment and overview. *Journal of Macromarketing, 15*(2), 33-49.

Chang, S. C. (2011). Intra-continental and intercontinental service trade in the travel and tourism industry. *Tourism Economics, 17*(5), 963–982.

Cihangir, M., Erkan, B., & Harbalıoglu, M. (2014). The effect on current account of net tourism revenues in Turkey, *European Scientific Journal, 10*(13), 47-65.

Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American Statistical Association, 74*(366), 427–431.

Dickey, D. A., & Fuller, W. A. (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica, 49*(4), 1057–1072.

Ekinci, M. B. (2005). Türkiye'nin uluslararasi hizmet ticaretindeki yeri ve mukayeseli üstünlükler çerçevesinde turizm sektörü. *I.Ü. Siyasal Bilgiler Fakültesi Dergisi, 33*, 45-67.

Engle, R. F., & Granger, C. W. J. (1987). Co-integration and error correction: Representation, estimation, and testing. *Econometrica, 55*, 251–276.

Feyisa, H. L. (2020). The world economy at COVID-19 quarantine: Contemporary review. *International Journal of Economics, Finance and Management Sciences, 8*(2), 63-74.

Freitas, C. R. (2003). Tourism climatology: Evaluating environmental information for decision making and business planning in the recreation and tourism sector. *International Journal of Biometeorol, 48*, 45–54.

Gregory, A., & Hansen, B. (1996). Residual-based tests for cointegration in models with regime shifts. *Journal of Econometrics, 10*, 321-335.

Holden, A. (2006), *Tourism studies and the social sciences*. London: Routledge.

Hu, X. (2020). The impact and implications of COVID-19 on China's service trade. *Advances in Social Science, Education and Humanities Research, 500*, 228-233.

Kabadayi, S., O'Connor, G. E., & Tuzovic, S. (2020). Viewpoint: The impact of coronavirus on service ecosystems as service mega-disruptions. *Journal of Services Marketing, 34*(6), 809–817.

Kitson, M., Martin, R., & Tyler, P. (2004). Regional competitiveness: An elusive yet key concept?. *Regional Studies, 38*(9), 991-999.

Kumudumali, S. H. T. (2020). Impact of COVID-19 on tourism industry: A review. MPRA Paper No. 102834. University Library of Munich, Germany.

Ozili, P., & Arun, T. (2020). Spillover of COVID-19: Impact on the global economy. *SSRN Electronic Journal*. 1–23.

Pearce, D. G. (1995). *Tourism today: A geographical analysis*. Longman, Harlow.

Phillips, P. C., & Hansen, B.E. (1990). Statistical inference in instrumental variables regression with I(1) processes. *The Review of Economic Studies, 57*, 99-125.

Phillips, P., & Perron, P. (1988). Testing for a unit root in time series regression. *Biometrika, 75*, 335-346.

Polat, M., Alptürk, Y., & Gürsoy, S. (2021). Impact of geopolitical risk on BIST tourism index and tourist arrivals in Turkey. *Journal of Tourism Theory and Research, 7*(2), , 77-84.

Priyanto, A., Purnomo, E. P., Andoko, B. Q., Khairina, E., & Fadhlurrohman, F. I. (2020). The impact of COVID-19 on local tourism sector and income. *MIMBAR, 36*(2), 383-390.

Proenca, S., & Soukiazis, E. (2005). Tourism as an alternative source of regional growth in Portugal. Centro de Estudos da Uniao Europeia Faculdade de Economia da Unversidade de Coimbra, Discussion paper: COIMBRA, 1-26.

Qunhui, H. (2020). Impact of COVID—19 epidemic on supply side and countermeasures: Short-term and long-term perspectives. *Journal of Economic Review Journal, 5*, 46-57.

Ruiz Estrada, M. A., Park, D., & Lee, M. (2020). The evaluation of the final impact of Wuhan COVID-19 on trade, tourism, transport, and electricity consumption of China. *SSRN Electronic Journal*, 1-13.

Sahoo, M. (2018). Exchange rate and service exports from India: A nonlinear ARDL analysis. *Economics Bulletin, 38*(2), 1090-1101.

Saikkonen, P. (1992). Estimation and testing of co-integrated systems by an autoregressive approximation. *Econometric Theory, 8*, 1-27.

Sarıkaya, F., & Çeviş, İ. (2020). Koronovirüs (COVID-19) ve ekonomik devinim. In B. Pakdemirli, Z. Bayraktar, A. N. Ünalmış & S. Takmaz (Ed.), *Pandemi Ekseninde Küresel Değişim ve Yeni Ekonomik Düzen* (pp. 17-32). Akçağ Publishing.

Sengupta, J. K., & Espana, J. R. (1994). Exports and economic growth in Asian NICs: An econometric analysis for Korea. *Applied Economics, 26*(1), 41–51.

Shretta, R. (2020). The economic impact of COVID-19. Retrieved from Centre for Tropical Medicine and Global Health, Nuffield Department of Medicine, University of Oxford.

Stock, J. H., & Watson, M. W. (1993). A simple estimator of cointegrating vectors in higher order integrated systems. *Econometrica: Journal of the Econometric Society*, 783-820.

TURKSTAT. (2021). Turkish Statistical Institute Database.

Vu, J. C., & Turner, L. (2009). The economic structure of world tourism. *Tourism Economics, 15*(1), 5–21.

Xin, F. (2021). Effects of COVID-19 epidemic on China's service trade and counter measures. *International Journal of Advanced Engineering, Management and Science (IJAEMS), 7*(1), 1–11.

Zivot, E., & Andrews, D. W. K. (1992). Further evidence on the great crash, the oil price shock, and the unit root hypothesis. *Journal of Business & Economic Statistics, 10*(3), 251–270.

Jomat

Journal of multidisciplinary academic tourism

2022, 7 (1): 55-65

https://doi.org/10.31822/jomat.2022-7-1-55

ISSN: 2645-9078

INFO PAGE

The nexus between tourism and international service trade in the coronavirus pandemic: Evidence from Turkey

Abstract

Coronavirus (COVID-19) pandemic has affected all economic processes as well as the tourism industry and service exports. COVID-19 pandemic affects negatively not only in the production and manufacturing industry, but also has caused important problems in the service and tourism sector. The paper aims to determine the effects of tourism revenues, international tourist arrivals and COVID-19 pandemic on service exports and the tourism industry. In line with the results, there is a long-term relationship among tourism revenues, international tourist arrivals, exchange rates, and service exports. According to FMOLS and DOLS results, an increase in the tourism revenues, international tourist arrivals and exchange rates ensure raising service exports of Turkey. However, it is determined that COVID-19 pandemic lead to decreasing service exports of Turkey. In addition, Granger causality analysis revealed that there is a unidirectional causality relationship from exchange rates to international tourist arrivals in Turkey. On the other hand, it is determined that there are bidirectional causality relationships between tourism revenues and service exports, international tourist arrivals and service exports, international tourist arrivals and tourism revenues. Results of the analysis indicate that service exports of Turkey follows a rising trend and it can be reduced the effects of COVID-19 pandemic when development of tourism infrastructure and quality raises.

Keywords: *Service Exports, Tourism Industry, COVID-19, Gregory-Hansen Cointegration Test, VEC Granger Causality Test*

Authors

Full Name	Author contribution roles	Contribution rate
Ayberk Şeker:	*Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Supervision, Project administration, Funding acquisition,*	*100%*

Author statement: *Author(s) declare(s) that All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.* ***Declaration of Conflicting Interests:*** *The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article*

This paper does not required ethics committee report

Justification: The methodology of this study does not require an ethics committee report.

Jomat

Journal of multidisciplinary academic tourism
2022, 7 (1): 67-79
www.jomat.org

ISSN: 2645-9078

A bibliometric analysis of food studies: Evidence from British Food Journal

Mert Öğretmenoğlu, Sevinç Göktepe, Ozan Atsız*

Keywords:
Food,
Food studies,
British Food Journal,
Bibliometric analysis,
VOSviewer software,
Web of Science

Article History:
Submitted: 07.05.2021
Accepted: 18.11.2021

ABSTRACT

The objective of the current study is to overview the British Food Journal publications from 2010 to 2020. To address our purpose, bibliometric and visualization analyses were used. Firstly, a total of 1892 documents published from 2010 to 2020 in the British Food Journal (BFJ) was obtained from the Web of Science database (WoS). Then, the analyses were made by running VOS viewer software. In the process of analyzing data, we have principally considered some bibliometric indicators such as the number of annual publications, the most productive organizations, the most cited papers, the most contributing countries, the most productive authors, the co-occurrence of author keywords, the co-authorship of countries, and the co-citation of authors. The results show that BFJ is one of the leading and prominent journals with the number of publications increasing each year according to the basic indicators mentioned above. Further to this, the most productive and contributing authors, institutions, and countries are mainly from European countries. The most common researched fields according to the co-occurrence of author keywords are listed as "consumer behavior, food safety, food products, food industry, food, nutrition, organic food, sustainability, and consumer".

Doi: https://doi.org/10.31822/jomat.2022-7-1-67

1. Introduction

Food is a key attraction that pushes travelers to visit a destination. During the decision-making process, travelers consider these attractions while traveling to a destination. Thus, the link between tourism and food is evident and this was approved by many tourism and hospitality scholars. According to Hall and Sharples (2003, p.10), food tourism is defined as "visitation to primary and secondary food producers, food festivals, restaurants and specific locations for which food tasting and/or experiencing the attributes of specialist food production region are the primary motivating factor for travel." Many researchers investigated food studies, therefore, great knowledge on this topic exists in the research stream (Akova et al., 2016; Atsız et al., 2021; Çifçi et al., 2021; Ellis et al., 2018). To make a synthesis and bring together knowledge of food studies, this paper attempt to compile previous research published in the British Food Journal.

The British Food Journal (hereafter BFJ) is a journal that releases articles including case studies and literature reviews, empirical and applied researches, viewpoint articles, and general reviews from all disciplines relating to the consumption, business, management, and marketing, health, welfare, and education, sustainability, and environment. The main scope of the journal is food. BFJ is a basic journal for those who are interested in food such as researchers, academics, students in social science, management, public health disciplines. Additionally, dietitians and nutritionists, food and agricultural companies, food research institutes, professionals who work in the food industry could benefit from this journal. BFJ released its first issue in 1899. Its first publisher was Bailliere, Tindall & Cox, but its publishing is currently undertaken by Emerald Publishing Limited. As a hybrid and monthly journal, BFJ has 1283 issues in 123 volumes so far. It is indexed in databases such as Science Citation Index, Scopus, and Hospitality and Tourism Index (Emerald, 2021). According to Scopus and Clarivate

*Corresponding Author

Research paper

Mert Öğretmenoğlu: Research Assistant (PhD Candidate), Istanbul University, Istanbul, Turkey, Email: mert.ogretmenoglu@istanbul.edu.tr, Orcid Id: /0000-0003-0639-4891

Sevinç Göktepe : Asst. Prof (PhD), Istanbul University, Istanbul, Turkey, Email: goktepe@istanbul.edu.tr, Orcid Id: 0000-0002-0856-0278

Ozan Atsız: Research Assistant (PhD), Bozok University, Yozgat, Turkey, Email: ozan.atsiz@bozok.edu.tr, Orcid Id: 0000-0003-2962-1903

Analytics, its Cite Score is 3.1 in 2019 (Scopus, 2021), and its five-year impact factor is 2.467 respectively (Clarivate, 2021). Today, BFJ has a long publishing background in food research with 122 years of history. Although it is a highly respected worldwide interdisciplinary journal (Scimagojr, 2021), to the best of our knowledge, no research that analysis of the papers of the BFJ that published between 2010 and 2020 by bibliometric approach.. Therefore, the scope of this study is to evaluate the papers published in BFJ between 2010 and 2020 with bibliometric analysis. Although thousands of articles have been published in the BFJ since 1899, to understand trends and changes in current food studies, we only evaluated documents from 2010 to 2020. To achieve this purpose, we use the WoS database which is one of the most popular (Mongeon & Paul-Hus, 2016), important (Van Leeuwen, 2006), and reliable (Ozsoy & Demir, 2018) source of data for bibliometric studies. There are some reasons why we preferred WoS database in this research. Firstly, it is aimed at reducing the possibility of analysing the same studies more than once. Secondly, many researchers collected data from WoS for bibliometric analyses (Mavric et al., 2021).

This bibliometric research has some important implications for BFJ and relevant literature. Firstly, the examination of a journal with the bibliometric method is important as it presents historical information about both the impact of that aforementioned journal and its evolutionary development (Schwert, 1993). Secondly, the results of bibliometric analysis of journals can be extremely useful for editorial boards to make some decisions on the further development of journals (Mokhtari et al., 2020). Thirdly, it can give new ideas to researchers studying food research. Additionally, many studies examine journals through a bibliometric approach in various fields of social sciences (Merigó et al., 2019). For example, in the field of business and marketing, Martínez-López et al. (2018) studied the European Journal of Marketing for fifty years. Another examples, a bibliometric review to analyze forty-five years of publications in the Journal of Business Research conducted by Donthu et al. (2020). Similarly, in the field of hospitality and tourism, Mulet-Forteza et al. (2018) made a bibliometric overview of the twenty-five years of the Journal of Travel & Tourism Marketing. Cunill et al. (2019) used a bibliometric method for measuring the scientific performance of the International Journal of Hospitality Management. Sharma et al. (2020) examined the Journal of Teaching in Travel & Tourism from 2001 to 2019 through a bibliometric approach. Based on these examples, this study is structured as follows. The second section of the study explains bibliometric analysis and describes methods applied through this research. Then, the third section presents the obtained results. The last sections include a conclusion, limitations, and suggestions for further research.

2. Bibliometric analysis and Method

Most of the scholars are familiar with the bibliometric methods as applied to scientific papers (Narin, 1994). This method compounds various categories and ranges from research papers, patents, and books to the reports which are categorized as grey literature (Ellegaard & Wallin, 2015). Abstract services and databases on the internet make electronic documents more accessible (Morris et al., 2002), making bibliometric research much practical (Patra et al., 2006). Although it looks like a new technique, bibliometric analysis has been on the agenda of researchers for a long time. One of the first definitions of bibliometric analysis belongs to Pritchard. Pritchard (1969, p. 349) defined bibliometric analysis as "*the application of mathematics and statistical methods to books and other media of communication*". Broadus (1987, p. 376) also described it as *"bibliometric is the quantitative study of physical published units, or of bibliographic units, or of the surrogates for either."* Briefly, bibliometric is *"the use of statistical analyses to study publication patterns"* (McBurney & Novak, 2002, p.109). Bibliometric methods are mostly used to measure the effects of academic papers (Cooper, 2015). According to Cronin (2001), bibliometric count and measure things that they consider more visible and objective indicators of scholarly activity, especially publications and citations. Bibliometric offers powerful methods and measures to study the structure and process of scientific communication (Borgman & Furner, 2002). Bibliometric methods also allow researchers to discover and analyze historical data that can help in identifying "hidden patterns" in the decision-making process (Daim et al., 2006). Besides all these, these methods are economical, non-intrusive, and easy to implement, which allow updates and fast intertemporal comparisons (Abramo et al., 2009).

Bibliometric methods consist of various methodologies (McBurney & Novak, 2002). These methods were created to measure the flow of information between countries, disciplines, and individual working groups and to evaluate the productivity of different organizations, taking into account the number of citations, documents, and other text-based data (Kurtz & Bollen, 2010). Bibliometric methods also predict how effective the selected articles will be on future researches by looking more at the citation number of the article (Cooper, 2015). Bibliometric contain word frequency analysis, co-citation analysis, co-word analysis, co-authorship, co-occurrences, and simple countings, such as the total number of publications by an author or country (Thelwall, 2008). Co-citation analysis, one of the best known bibliometric methods (Borgman & Furner, 2002; Osareh, 1996), looks at the relationship (include field, authors, institutions, and countries) between a paper and the papers it has cited (McBurney & Novak, 2002). Co-occurrence is an author collaboration network that reflects scholarly communication (Qiu et al., 2014). With co-occurrence analysis, interdisciplinary participation and collaboration in a particular research area can be examined (Liu & Mei, 2016). Co-authorships also can be considered as codified markers of research collaboration (Park et al., 2016; Ponomariov & Boardman, 2016).

In addition, this study is based on previous studies that analyzed journals with a bibliometric approach. Such researchers like, Chen et al. (2017); Martínez-Lopez et al. (2018); Vishwakarma & Mukherjee, 2019 ; Xu & Yu (2019); Gaviria-Marin et al. (2018); Wang et al. (2020) made a bibliometric study of articles which they used such methods like it is mentioned above. In this paper, we analyzed the number of annual publications, the most productive organizations, the most cited papers, the most productive authors, the most contributing countries, the co-occurrence of author keywords, co-authorship of countries, and co-citation of authors. In addition, in the data analysis process, we used VOS viewer which has a powerful user graphic-interface and mapping visualization capability (Wang et al., 2020).

Sampling and Software

BFJ's documents are available on both Scopus and WoS databases. However, in this study, we obtained the data from the WoS database on 28 January 2021. We have taken into account the studies scanned in only WoS as there is a possibility that the same articles are included in both WOS and Scopus and to avoid analyzing the same data incorrectly (Mavric et al., 2021).

To define the sample, the keyword "British Food Journal" was used. The search was done in the "publication name" field. At the end of this process (step 1), we found 2239 documents such as articles, reviews, and editorial material in the WoS database (See figure 1). Since the scope of this study is to examine the documents published between 2010 and 2020, the documents were searched again in the search engine and reached 1892 studies published in the relevant years. These obtained data were analyzed by Vosviewer software.

VOSviewer originated by Jan van Eck and Ludo Waltman in order to construct and view bibliometric visual maps (Van Eck & Waltman, 2010). VOSviewer is software used in both constructing and visualizing bibliometric networks such as researchers, journals, or individual publications. Moreover, VOSviewer can analyze data obtained by Web of Science, Scopus, Dimensions, and PubMed (VOSviewer, 2020). It is used as a software that is frequently used in specific journal reviews (e.g. Martínez-Lopez et al., 2018; Gaviria-Marin et al., 2018; Mulet-Forteza et al., 2018; Vishwakarma & Mukherjee, 2019; Merigó et al., 2019; Kumar et al., 2020; Sharma et al., 2020; Mokhtari et al., 2020; Wang et al., 2020). Based on the above previous studies, in the present study, Vosviewer was chosen for the analysis of the data (Mavric et al., 2021).

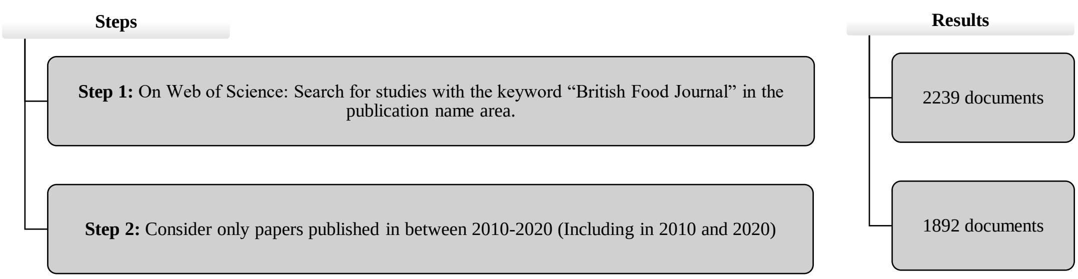

Figure 1. Flowchart of the selection of the studies

Source: *Authors*

3. Results

The Annual number of BFJ publications by year

Figure 2 shows the papers published in the BFJ between the years 2010 and 2020. When figure 2 is viewed, it is seen that more papers are published each year compared to the previous year. Especially the number of studies published in 2019 and 2020 is remarkable. While the journal published 88 studies in 2010, this number increased to 300 in 2020. From this point of view, it can be said that the BFJ is growing day by day and its popularity increases among authors who study on food.

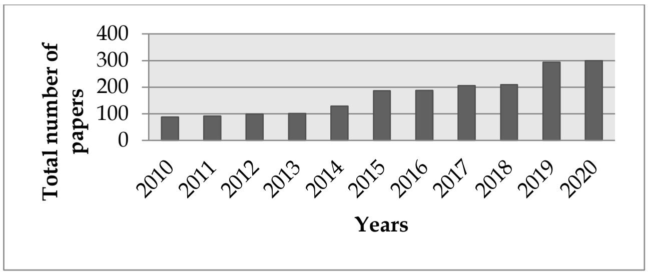

Figure 2. Total number of BFJ publications by year (2010-2020)
Source: *Authors*

The Most Productive Authors

Figure 3 indicates the ten most productive authors in BFJ. According to the publishing count, the most productive author is Alonso A. D publishing 15 papers, followed by authors, Gellynck X, Manning L, Djekic I, Soon J. M, Spiller A.

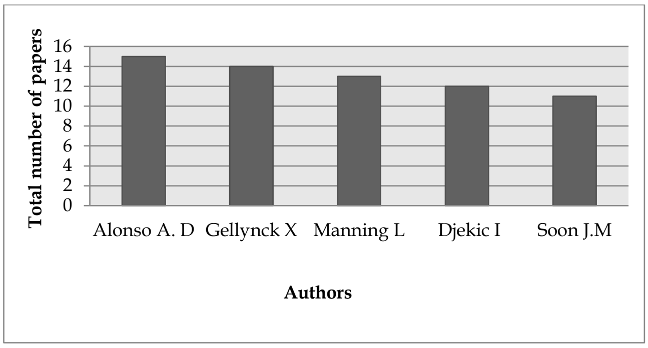

Figure 3. Authors who published the most documents in the BFJ (Note: The top 5 authors who published the most documents in this journal were selected)
Source: *Authors*

Abel Duarte Alonso *(h-index = 21)* has the highest number of published articles in BFJ (15 papers). He published 5 articles in 2010, 6 articles in 2011, 1 article in 2012, 1 article in 2013, 1 article in 2015, and 1 article in 2020. He conducted his research on wine.

Xavier Gellynck *(h-index = 31)* is the second author to have published the most studies in this journal. He published 1 study in 2012, 1 study in 2014, 3 studies in 2015, 4 studies in 2016, 1 study in 2017, 1 study in 2018, 2 studies in 2019, and 1 study in 2020. He carried out his research on consumer behaviors, consumer, and traditional food.

Louise Manning *(h-index = 9)* is the third most published author in BFJ (12 articles and 1 editorial material). She published 1 document in 2012, 5 documents in 2013, 1 document in 2015, and a total of 6 documents in 2016, 2017, and 2019. She conducted her research on food safety, food supply chain, and food safety risk.

Ilija Djekic (*h-index = 16)* has 12 documents in BFJ (12 articles and 1 review). He published his first article in this journal in 2015. His last article was published in 2020. He carried out his research on food safety and supply chain.

Jan Mei Soon *(h-index = 14)* is a Ph.D. in Food Safety and she has 11 articles in BFJ. She conducted her research on food crime, food supply chain, food safety risk, and halal slaughter.

In general, it is seen that these researchers focused their research on two main topics; food supply chain and food safety.

The Most Productive Organizations

Figure 4 demonstrates the institutions that have published the most studies in the BFJ. From the viewpoint of productivity, Wageningen University Research (with 53 papers) is the most productive institution, followed by the University of Turin (with 33 papers).

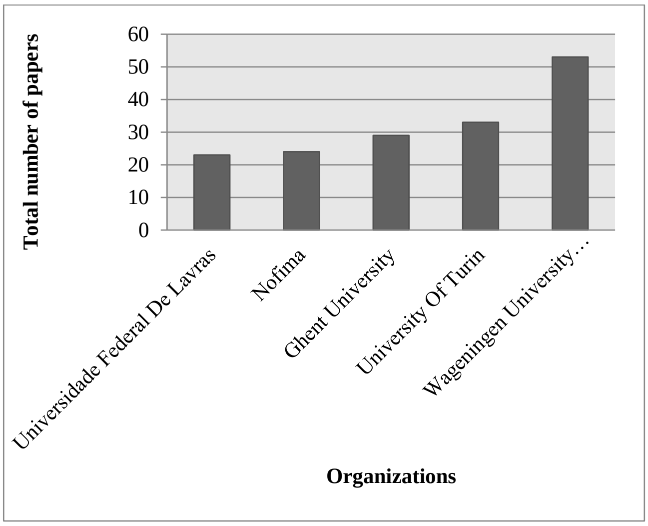

Figure 4. Organizations that published the most documents in the BFJ (Note: The top 5 organizations which published the most documents in this journal were selected)
Source: *Authors*

Wageningen University and Research is located in the Netherlands and it has Tourism and Food technology undergraduate programs (Wageningen University and Research, 2021). This university has the highest number of published studies with 53 papers published in BFJ. This number constitutes 2.8 % of the total 1892 papers published in 2010-2020.

The University of Turin is one of the oldest universities in Europe and it is located in Italy. The University has a Department of Agricultural, Forest, and Food Sciences (University of Turin, 2021). It is the second university to have published the most studies in this journal. This university contributed 33 papers to the BFJ (1.7 % of the total documents).

Ghent University is one of the major universities in Belgium. This university has a Master of Food Technology program (Ghent University, 2021). It is the third most published organization in BFJ (29 articles).

Nofima is located in Norway and it is a prestigious and leading institute for applied research within the field of food research. Its basic vision is "Sustainable food for all" (Nofima, 2021).This institute published 24 papers in BFJ.

Universidade Federal De Lavras is a university operating in Brazil. It has graduate programs such as Food Science and it has undergraduate programs such as Food Engineering and Nutrition (Universidade Federal De Lavras, 2021). This university contributed 23 papers to the BFJ.

In summary, 4 of the most productive organizations in this journal are of European origin. Only one organization is located outside of Europe.

The Most Contributing Countries (Top 25)

In this section, we have analyzed some countries that have contributed the most in terms of the total number of documents published in BFJ. Figure 5 illustrates the distribution of countries contributing to BFJ. As can be seen on the map below, Italy comes first. Italy published 247 documents (13.05 %). After Italy, England ranks second and the USA ranks third. These countries have published 183 (9.6 %) and 166 (8.7 %) documents, respectively. The subsequent countries include Brazil (4th, 120 papers), Australia (5th, 107 papers), Germany (6th, 105 papers), Spain (7th, 100 papers), China (8th, 93 papers), Malaysia (9th, 82 papers), Netherlands (10th, 66 papers), Canada (11th, 65 papers), India (12th, 61 papers), Taiwan (13th, 56 papers), Turkey (14th, 52 papers), Norway (15th, 51 papers), Poland (16th, 50 papers), Denmark (17th, 48 papers), South Africa (18th 44 papers), Sweden (19th, 37 papers), Belgium (20th, 36 papers), France (21st 36 papers), Greece (22nd, 35 papers), New Zealand (23rd, 34 papers), Finland (24th, 33 papers) and Ireland (25th, 32 papers). In summary, sixteen of the most contributing countries are located in Europe, three in America (Both north and south), five in Asia, and two in Oceania. In addition, there is only one country from the African continent.

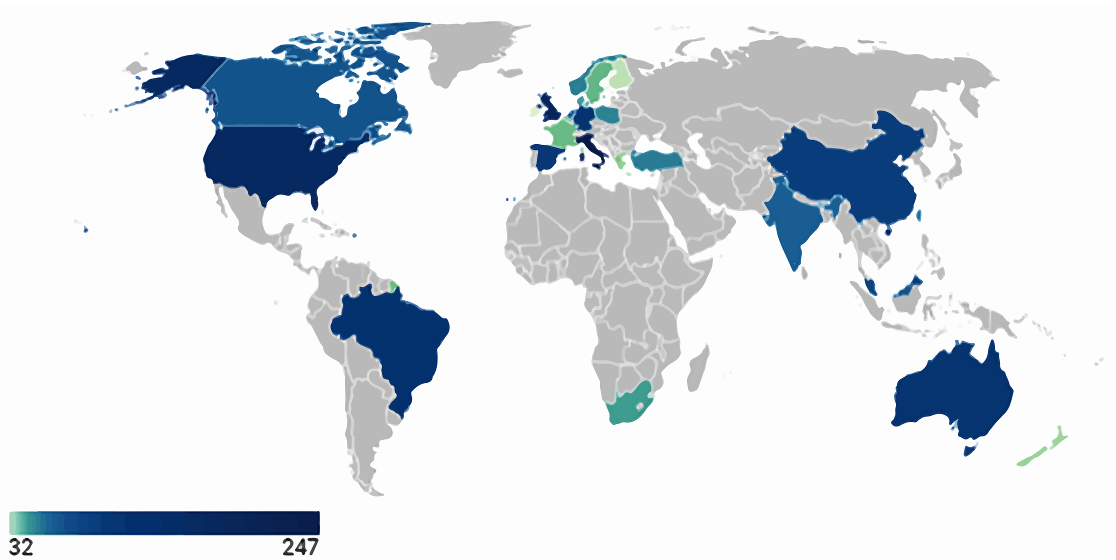

Figure 5. The most contributing countries (Note**:** The top 25 countries which published the most documents in this journal were selected).

Source: *It was created by authors via https://mapchart.net/.*

Table 1. The most cited documents in BFJ

Rank	Authors	Title	Method	Type	WOS Citations	Google Scholar Citations
1	Aertsens et al. (2011)	The influence of subjective and objective knowledge on attitude, motivations, and consumption of organic food.	Quantitative (Questionnaire)	Article	156	488
2	Zakowska-Biemans (2011)	Polish consumer food choices and beliefs about organic food	Quantitative (Questionnaire)	Article	108	284
3	Vrontis et al. (2016)	Tradition and Innovation in Italian Wine Family Businesses	Case study	Article	103	148
4	Pearson et al. (2011)	Local food: understanding consumer motivations in innovative retail formats	Quantitative (Questionnaire)	Article	100	240
5	Al-Swidi et al. (2014)	The role of subjective norms in theory of planned behavior in the context of organic food consumption	Quantitative (Questionnaire)	Article	95	252
6	Principato et al, (2015)	Reducing food waste: an investigation on the behaviour of Italian youths	Quantitative (Questionnaire)	Article	90	152
7	Teng & Wang (2015)	Decisional factors driving organic food consumption: Generation of consumer purchase intentions	Quantitative (Questionnaire)	Article	86	225
8	Horst et al. (2014)	The “dark side” of food banks? Exploring emotional responses of food bank receivers in the Netherlands	Qualitative (Interview)	Article	82	153
9	Silvennoinen et al. (2014)	Food waste volume and composition in Finnish households	Quantitative (Questionnaire)	Article	77	173
10	Dora et al. (2014)	Application of lean practices in small and medium-sized food enterprises	Qualitative (Questionnaire)	Article	74	141
11	Griffith et al. (2010a)	The assessment of food safety culture	Conceptual/Literature review	Article	71	137
12	Xie et al. (2015)	Consumer perceptions and attitudes of organic food products in Eastern China	Mixed (Quantitative and Qualitative)	Article	69	138
13	Vanhonacker et al. (2010)	Profiling European traditional food consumers	Quantitative (Questionnaire)	Article	69	141
14	Santoro et al. (2017)	External knowledge sourcing and new product development: Evidence from the Italian food and beverage industry	Quantitative (Questionnaire)	Article	68	87
15	Röös & Tjärnemo (2011)	Challenges of carbon labelling of food products: a consumer research perspective	Conceptual/Literature review	Article	64	118
16	Wiedmann et al. (2014)	Tasting green: an experimental design for investigating consumer perception of organic wine	Quantitative (questionnaire)	Article	62	103
17	Dimitri & Dettmann (2012)	Organic Food Consumers: what do we really know about them?	Quantitative (Econometric model)	Article	62	165
18	Griffith et al. (2010b)	Food safety culture: the evolution of an emerging risk factor?	Conceptual/Literature review	Article	61	135
19	Franceschelli et al. (2018)	Business model innovation for sustainability: a food start-up case study	Case study	Article	60	87
20	Tarasuk et al. (2014)	Food banks, welfare, and food insecurity in Canada	Conceptual/Literature review	Article	60	119

Source: (It was created by researchers using WoS Database)

The most cited documents in BFJ publications (Top 20)

This section examines the most cited papers published in BFJ according to the WoS database. Table 1. indicates the Top 20.

The most cited paper of the journal was published in 2011 by Aertsens et al. on organic food consumption. It currently has more than 156 citations. Looking at the 20 most-cited documents, it is seen that they are mainly research articles. The quantitative method was used in most of the studies (12). Aertsens et al. (2011); Zakowska-Biemans (2011); Al-Swidi et al. (2014); Teng & Wang, (2015); Xie et al. (2015); Wiedmann et al. (2014) and Dimitri & Dettmann (2012) have focused on organic food products, organic food consumption, and consumer choice about organic food in their studies. Griffith et al. made two papers about food safety in 2010 which have 71 and 61 citations respectively. Principato et al. (2015) and Silvennoinen et al. (2014) studied food waste; Horst et al. (2014) and Tarasuk et al. (2014) made researches about food banks. The other research subjects are Italian wine family business by Vrontis et al. (2016); consumer motivations about local food by Pearson et al. (2011); lean practices in small and medium-sized food enterprises by Dora et al. (2014); European food consumers by Vanhonacker et al. (2010); new food product development by Santoro et al. (2017); challenges of carbon labeling of the food product by Röös & Tjärnemo (2011) and business model innovation by Franceschelli et al. (2018).

Science mapping analysis of British Food Journal

In this section, we made a science mapping analysis of papers in the British Food Journal. We analyzed the co-occurrence of author keywords, co-authorship of countries, and co-citation of authors by VoSviewer.

Co-occurrence of author keywords of documents published in the BFJ: To figure out the main research topics of the papers in journals, co-occurrence analysis of keywords is an influential and considerable analysis to obtain an appearance of the knowledge structure and actual research trend (Wang et al., 2020). In this direction, we analyzed the co-occurrence of author keywords to determine the research trends in BFJ. Figure 6 shows the author's keyword co-occurrence of keywords listed in Table 2. Although there are 4992 keywords of papers in the BFJ from 2010 to 2020, only 331 keywords meet the threshold. Out of the keywords, consumer behavior (181), food safety (104), food products (99), food industry (64), food (64), nutrition (50), organic food (49), consumers (40), sustainability (40) and wine (35) are ranked as the most foremost keywords that are consisted more than 5 times in BFJ papers.

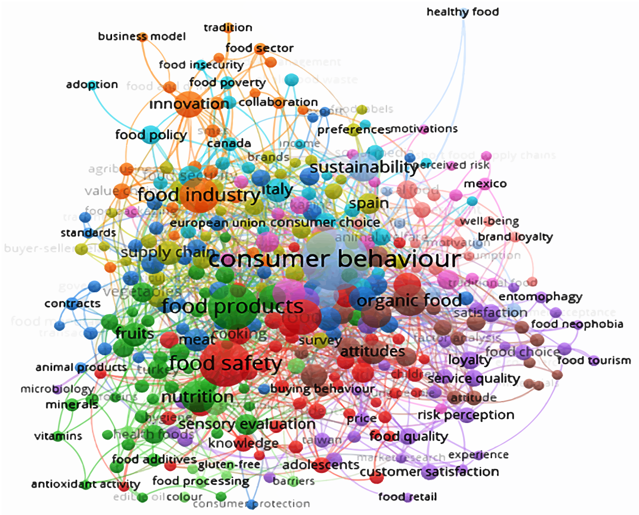

Figure 6. Co-occurrence of author keywords of papers published in BFJ

Source: *Authors*

It is also worth noting that; a node demonstrates a keyword. Big node means that keyword has more citations. A link between two nodes signifies the co-occurrence of two keywords. The coarser line means that they have more co-occurred times. Additionally, a color symbolizes a cluster (Wang et al., 2020). As a result of this analysis, we obtained 12 clusters (See figure 6). (1) The red cluster consists of keywords such as food safety, healthy, food consumption, HACCP, restaurant, and catering. (2) Yellow cluster occurs keywords such as food products, nutrition, fruits, vegetables, proteins, and dairy products. (3) Green cluster occurs keywords such as food products, nutrition, fruits, vegetables, proteins, and dairy products. (4) The supply chain, Spain, the USA, buyer-seller relationships are prominent in the yellow cluster; (5) willingness to pay and purchase intention foremost keywords in the blue cluster; (6) keywords such as satisfaction, loyalty, and service quality stood out in the purple cluster. (7) Food policy, Canada, Italy, and Food security are highlighted in the turquoise cluster. The food industry and innovation are some of the keywords that dominate the orange cluster. (8) The brown cluster consists of words such as organic food, attitudes, and consumer attitudes. (9) The light purple cluster consists of words such as marketing, packaging, and retailing. (10) Local food predominates in the pink cluster. (11) Customer preferences come first in the light green cluster. (12) In the light blue cluster, consumer behavior, customer perspective, consumer research, fish, and fresh fish are the dominant keywords.

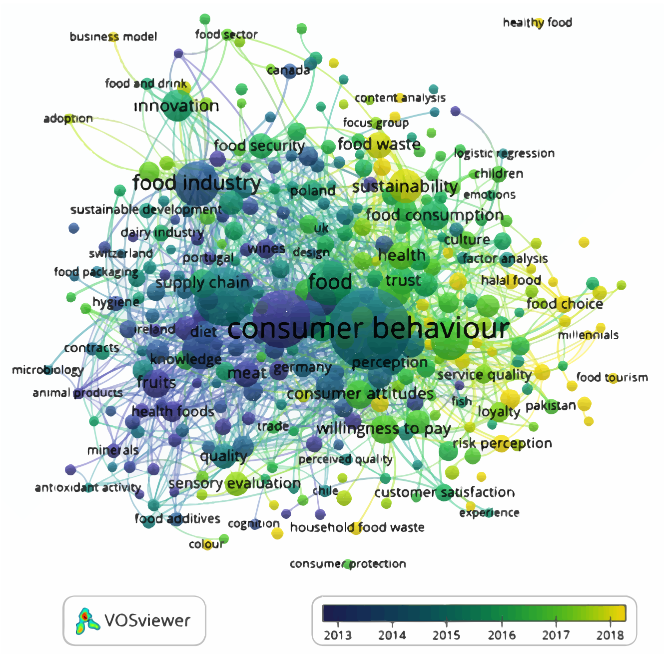

Figure 7. A timeline view of co-occurrence of author keywords of papers published in BFJ

Source: *Authors*

In addition, the figure above (figure 7) shows in which years the keywords were studied most. When Figure 7 is examined, it shows that the authors who published in this journal researched food production, healthy food, fruits, minarets, hygiene, organic foods, customer behavior, food industry, and supply chain between 2013 and 2016. However, after 2018, it is observed that the authors mostly investigated topics such as sustainability, food waste, household food waste, wine, halal food, food tourism, perceived risk, and food choice.

Co-authorship of countries that publish in the BFJ:

Co-authorship of countries implies that authors from different countries publishing jointly (Kumar et al., 2020). The co-authorship network among countries is presented in Figure 8. The network analysis shows that Spanish authors cooperate mostly with co-authors from Chile, Colombia, Mexico, Egypt, Morocco, Pakistan, Saudi Arabia, Tunisia, and Wales (Red Cluster). There are powerful collaborative linkages among Australia, Indonesia, Ireland, Japan, Netherlands, New Zealand, North Ireland, Scotland, Taiwan, and Vietnam (Green Cluster). Countries in the blue cluster are; Bangladesh, Belgium, Germany, Hungary, Israel, the People's Republic of China,

Table 2. The most common keywords in BFJ

Rank	Keyword	Occurrences	Total link strength
1	Consumer Behavior	181	174.00
2	Food Safety	104	88.00
3	Food Products	99	94.00
4	Food Industry	64	58.00
5	Food	64	60.00
6	Nutrition	50	45.00
7	Organic Food	49	45.00
8	Consumers	44	44.00
9	Sustainability	40	32.00
10	Wine	35	32.00
11	Innovation	35	27.00
12	Organic Food	33	30.00
13	China	31	26.00
14	Food Consumption	30	26.00
15	Consumer Attitudes	29	28.00
16	Fruits	29	28.00
17	Consumption	29	27.00
18	Willingness To Pay	29	27.00
19	Supply Chain	29	26.00
20	Consumer Perceptions	28	26.00
21	Health	28	28.00
22	Attitudes	27	26.00
23	Trust	27	27.00
24	Italy	27	22.00
25	Food Waste	26	20.00
26	Meat	25	22.00
27	Quality	23	20.00
28	Food Security	23	19.00
29	Labeling	22	21.00
30	Supply Chain Management	22	21.00
31	Perception	22	22.00
32	Cluster Analysis	22	19.00
33	Spain	22	21.00
34	Cooking	22	20.00
35	Sensory Evaluation	22	17.00
36	Purchase İntention	22	15.00
37	Marketing	21	20.00
38	Diet	21	19.00
39	Vegetables	20	19.00
40	Restaurants	20	19.00
41	Theory of Planned Behavior	20	19.00
42	Consumer Choose	18	18.00
43	India	18	18.00
44	Turkey	18	16.00
45	Local Food	18	17.00
46	Health Foods	17	17.00
47	Gender	17	15.00
48	Food Policy	17	15.00
49	Poland	17	15.00

Source: Authors

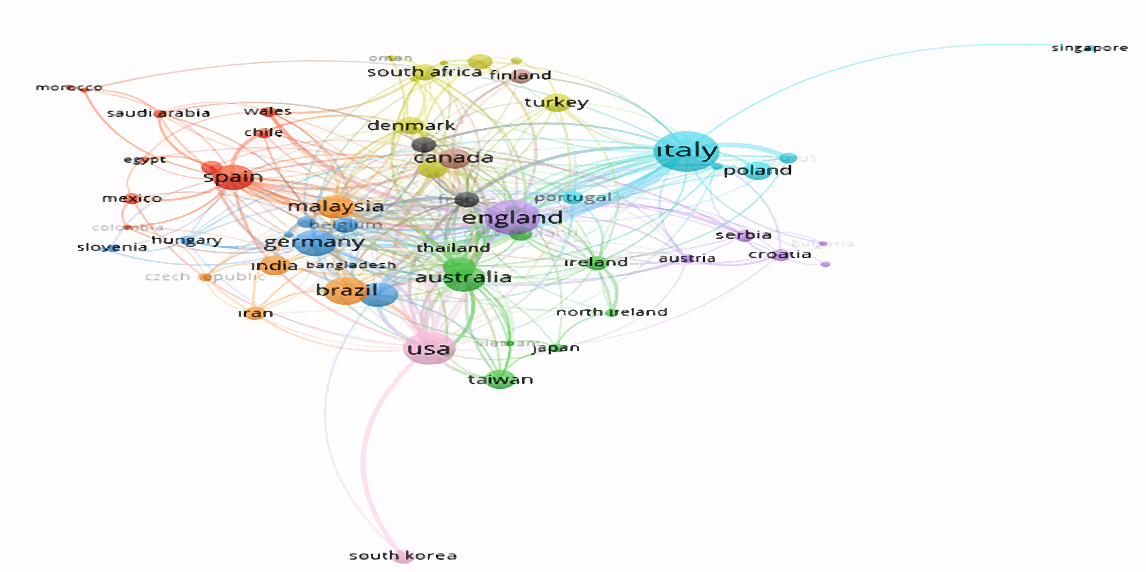

Figure 8. BFJ international collaboration network

Source: Authors

Romania, Slovenia, and Switzerland. The countries in the yellow cluster are; Denmark, Kenya, Nigeria, Norway, Oman, South Africa, Sweden, Tanzania, and Turkey. English authors cooperate mostly with co-authors from Austria, Bosnia and Herzegovina, Bulgaria, Croatia, and Serbia (Purple cluster). Italian authors collaborate with Cypriot, Polish, Portuguese, and Russian authors (Turquoise cluster); Brazilian researchers collaborate with Czech, Hindu, Iranian and Malaysian researchers (Orange cluster). Finally, Canadians work jointly with Finns (Brown cluster), Americans with South Koreans (Pink cluster), and French with Greeks (Black cluster).

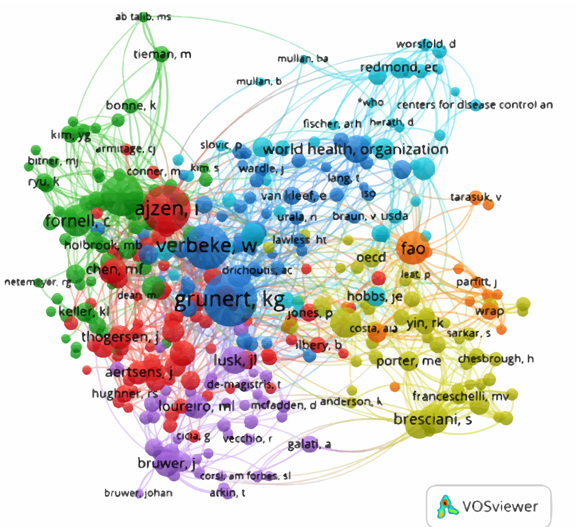

Figure 9. Co-citation network map of authors cited by BFJ

Source: Authors

4. Conclusion

The number of bibliometric studies in food, tourism and hospitality literature is increasing day by day (e.g. Evren & Kozak, 2014; Hall, 2011; Köseoglu et al., 2015; Okumus et al., 2018; Lyu et al., 2020; Vila-Lopez & Küster-Boluda, 2020). According to these studies, a wealth of knowledge generated in a specific field should be organized to illustrate for scholars. Furthermore, in recent years, some bibliometric researchers conducted their studies on examining a specific journal's publications and these researches were mainly focused on publications of top-tier journals (e.g. Cunill et al,. 2019; Mulet-Forteza et al., 2018; Sharma et al., 2020). As one of the top-tier journals in food, tourism, and hospitality, BFJ offers a wide range of knowledge about food and its specific topics. Although the significance of this journal's reputation in the relevant scholarly area and many generated contents, no study examines all documents (2010-2020) published on BFJ by bibliometric analysis. To respond to this research gap and present all publications' summaries, this research attempts to examine the BFJ by using bibliometric and visualization analysis. Thus, the originality of this research can be regarded as one of the first research that tackles this journal by these analysis.

The main research findings indicated that 2019 and 2020 were the most productive year of the BFJ when compared with other years. This is clear that the journal will increase its number of publications in the next years. Moreover, BFJ has also received much attention from researchers and scholars who are interested between the food supply chain and food safety. This is evidence that this trend will grow in the coming years because most productive researchers published these topics in 2019 and 2020. The majority of the most productive researchers and organizations are mainly from European countries and the USA. This result illustrates that BFJ is dominated by scholars from Europe and the USA. In addition, these publications are distributed among developed destinations worldwide. However, countries that publish the least number of studies are in the African continent. From the perspective of most cited documents, it seems that most of them are quantitative studies and the most cited study was published in 2011 and has been cited 156 times by other researchers. Generally, the most cited documents tackled organic food products, organic food consumption, and consumer choice.

According to the co-occurrence of author keywords, it was indicated that most of the papers were related to the area of consumer behavior, food safety, food products, food industry, food, nutrition, organic food, sustainability, and consumer. It is well acknowledged that consumer behavior research will be so popular in different tourism and hospitality areas (Gursoy, 2018). As illustrated in this research, the most dominant common keyword among research was regarded as consumer behavior. Additionally, co-authorship of countries indicated that co-authorship network differ among countries from different continents such as Europe Asia, and America. Finally, According to the Co-citation of authors cited in the BFJ, in the period 2010 and 2020, 46,427 authors were cited by BFJ papers. The co-citation map showed that the most cited author by BFJ's authors was Grunert K. G.

Based on all obtained results, it is understood that BFJ is a constantly growing and leading journal in general. In addition, since all documents published in the last 11 years have been analyzed, the results obtained in this study may be important in terms of giving an idea to academicians and researchers who research food.

This study also has some theoretical and managerial contributions. This paper has identified major themes of food research and prominent studies related to food in terms of managerial contributions. While pioneer food tourism stakeholders develop marketing strategies, they should consider essential researches and authors outlined in the current study. In terms of theoretical contribution, the most studied concepts related to food researches were determined. Moreover, the most contributing authors, countries, journals and institutions have been identified. The results of this study can guide researchers who are interested on food. In summary, the current study can help the authors come up with new topics.

Limitations and Future Research Lines

There are some limitations of this study to be considered for future research. First, the purpose of this study is to examine papers published on BFJ at a certain period (2010-2020). Therefore, future researches can overview other periods of BFJ by using other techniques of the bibliometric method. Second, this study tackled all topics of papers in the journal. Future research can overcome this issue by reviewing some specific areas such as consumer behavior, wine tourism, halal food, etc. Third, this research focused on only BFJ. Hence, in the future, it is suggested that scholars may employ bibliometric analysis in different food journals by comparing it with our research findings. Lastly, Vosviewer was used in this study. Therefore, in other studies preferably different software can be used.

References

Abramo, G., D'Angelo, C. A., & Caprasecca, A. (2009). Allocative efficiency in public research funding: Can bibliometrics help?. *Research Policy*, *38* (1), 206-215.

Aertsens, J., Mondelaers, K., Verbeke, W., Buysse, J., & Van Huylenbroeck, G. (2011). The influence of subjective and objective knowledge on attitude, motivations and consumption of organic food. *British Food Journal, 113* (11), 1353-1378.

Akova, O., Cifci, İ., Atsız, O., & Gezeroglu, B. (2016). Understanding the motivational factors of dining out: a study at Fatih Kadinlar Bazaar in Istanbul. *Tourismos, 11*(1), 19-36.

Al-Swidi, A., Huque, S. M. R., Hafeez, M. H., & Shariff, M. N. M. (2014). The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal*, *116* (10), 1561-1580.

Atsız, O., Cifci, I., & Law, R. (2021). Understanding food experience in sharing-economy platforms: Insights from Eatwith and Withlocals. *Journal of Tourism and Cultural Change*, 1-26.

Borgman, C. L., & Furner, J. (2002). Scholarly Communication and Bibliometrics. *Annual Review of Information Science and Technology*, *36* (1), 3-72.

Broadus, R. N. (1987). Toward a definition of bibliometrics. *Scientometrics*, *12,* 373-379.

Chen, H., Jiang, W., Yang, Y., Yang, Y., & Man, X. (2017). State of the art on food waste research: A bibliometrics study from 1997 to 2014. *Journal of Cleaner Production*, *140*, 840-846.

Çifçi, I., Atsız, O., & Gupta, V. (2021). The street food experiences of the local-guided tour in the meal-sharing economy: the case of Bangkok. *British Food Journal*, 1-19.

Clarivate. (2021). *Journal citation reports*. Retrieved from https://apps.clarivate.com/jif/home/?journal=BRIT (accessed 28 January 2021).

Cooper, I. D. (2015). Bibliometrics basics. *Journal of the Medical Library Association: JMLA*, *103* (4), 217-218.

Cronin, B. (2001). Bibliometrics and beyond: some thoughts on web-based citation analysis. *Journal of Information Science*, *27* (1), 1-7.

Cunill, O. M., Salvá, A. S., Gonzalez, L. O., & Mulet-Forteza, C. (2019). Thirty-fifth anniversary of the International Journal of Hospitality Management: A bibliometric overview. *International Journal of Hospitality Management*, 89-101.

Daim, T. U., Rueda, G., Martin, H., & Gerdsri, P. (2006). Forecasting emerging technologies: Use of bibliometrics and patent analysis. *Technological Forecasting and Social Change*, *73* (8), 981-1012.

Dimitri, C., & Dettmann, R. L. (2012). Organic food consumers: What do we really know about them?. *British Food Journal, 114* (8), 1157-1183.

Donthu, N., Kumar, S., & Pattnaik, D. (2020). Forty-five years of Journal of Business Research: A bibliometric analysis. *Journal of Business Research*, 1-14.

Dora, M., Van Goubergen, D., Kumar, M., Molnar, A., & Gellynck, X. (2014). Application of lean practices in small and medium-sized food enterprises. *British Food Journal*, 125-141.

Ellegaard, O., & Wallin, J. A. (2015). The bibliometric analysis of scholarly production: How great is the impact?, *Scientometrics*, 1809-1831.

Ellis, A., Park, E., Kim, S., & Yeoman, I. (2018). What is food tourism?. *Tourism Management*, *68*, 250-263.

Emerald. (2021). *Journal description*. Retrieved from https://www.emeraldgrouppublishing.com/journal/bfj?_ga=2.109521029.1824282012.1612073692-1529162381.1611620981 (accessed 28 January 2021).

Evren, S., & Kozak, N. (2014). Bibliometric analysis of tourism and hospitality related articles published in Turkey. *Anatolia*, *25* (1), 61-80.

Franceschelli, M. V., Santoro, G., & Candelo, E. (2018). Business model innovation for sustainability: A food start-up case study. *British Food Journal, 120* (10), 2483-2494.

Gaviria-Marin, M., Merigo, J. M., & Popa, S. (2018). Twenty years of the Journal of Knowledge Management: A bibliometric analysis. *Journal of Knowledge Management*, *22* (8), 1655-1687.

Ghent University. (2021). *Programmes*. Retrieved from https://www.ugent.be/en/programmes (accessed 30 January 2021)

Griffith, C. J., Livesey, K. M., & Clayton, D. (2010a). The assessment of food safety culture. *British Food Journal, 112* (4), 439-456.

Griffith, C. J., Livesey, K.M. & Clayton, D. (2010b). Food safety culture: The evolution of an emerging risk factor?. *British Food Journal, 112* (4), 426-38.

Gursoy, D. (2018). Future of hospitality marketing and management research. *Tourism Management Perspectives*, *25,* 185-188.

Hall, C. M. (2011). Publish and perish? Bibliometric analysis, journal ranking and the assessment of research quality in tourism. *Tourism Management*, *32* (1), 16-27.

Hall, C. M., & Sharples, L. (2003). The consumption of experiences or the experience of consumption? An introduction to the tourism of taste. In C.M. Hall, L. Sharples, R. Mitchell, N. Macionis, B. Cambourne (Eds.), *Food tourism around the world*, Routledge, New York.

Horst, H., Pascucci, S., & Bol, W. (2014). The 'dark side' of food banks? Exploring emotional responses of food bank receivers in the Netherlands. *British Food Journal*, *116* (9), 1506–1520.

Köseoglu, M. A., Sehitoglu, Y., & Parnell, J. A. (2015). A bibliometric analysis of scholarly work in leading tourism and hospitality journals: The case of Turkey. *Anatolia, 26* (3), 359-371.

Kumar, S., Sureka, R., & Vashishtha, A. (2020). The Journal of Heritage Tourism: A bibliometric overview since its inception. *Journal of Heritage Tourism*, *15* (4), 365-380.

Kurtz, M. J., & Bollen, J. (2010). Usage bibliometrics. *Annual Review of Information Science and Technology*, *44* (1), 1-64.

Liu, L., & Mei, S. (2016). Visualizing the GVC research: A co-occurrence network based bibliometric analysis, *Scientometrics*, *109* (2), 953-977.

Lyu, V. C., Lai, I. K. W., Ting, H., & Zhang, H. (2020). Destination food research: A bibliometric citation review (2000–2018). *British Food Journal, 122* (6), 2045-2057.

Martínez-López, F. J., Merigó, J. M., Valenzuela, L., & Nicolás, C. (2018). Fifty years of the European journal of marketing: A bibliometric analysis. *European Journal of Marketing,* 439-468.

Mavric, B., Öğretmenoğlu, M., & Akova, O. (2021). Bibliometric Analysis of Slow Tourism. *Advances in Hospitality and Tourism Research*, *9* (1), 157-178.

McBurney, M. K., & Novak, P. L. (2002). What is bibliometric and why should you care? In: *Proceedings of the Professional Communication Conference*, 108-114.

Merigó, J. M., Mulet-Forteza, C., Valencia, C., & Lew, A. A. (2019). Twenty years of Tourism Geographies: A bibliometric overview. *Tourism Geographies, 21* (5), 881-910.

Mokhtari, H., Soltani-Nejad, N., Mirezati, S. Z., & Saberi, M. K. (2020). A bibliometric and altmetric analysis of Anatolia: 1997–2018. *Anatolia*, *31* (3), 406-422.

Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: A comparative analysis. *Scientometrics*, *106* (1), 213-228.

Morris, S., DeYong, C., Wu, Z., Salman, S., & Yemenu, D. (2002). DIVA: A visualization system for exploring document databases for technology forecasting, *Computers & Industrial Engineering*, *43* (4), 841-862.

Mulet-Forteza, C., Martorell-Cunill, O., Merigó, J. M., Genovart-Balaguer, J., & Mauleon-Mendez, E. (2018). Twenty five years of the Journal of Travel & Tourism Marketing: A bibliometric ranking, *Journal of Travel & Tourism Marketing*, *35* (9), 1201-1221.

Narin, F. (1994). Patent bibliometrics. *Scientometrics*, *30* (1), 147-155.

Nofima. (2021). *Home*. Retrieved from https://nofima.no/en/about-us/ (accessed 30 January 2021).

Okumus, B., Koseoglu, M. A., & Ma, F. (2018). Food and gastronomy research in tourism and hospitality: A bibliometric analysis. *International Journal of Hospitality Management, 73,* 64-74.

Osareh, F. (1996). Bibliometrics, citation analysis and co-citation analysis: A review of literature I. *Libri*, *46* (3), 149-158.

Ozsoy, Z., & Demir, E. (2018). Which bariatric procedure is the most popular in the world? A bibliometric comparison. *Obesity Surgery*, *28* (8), 2339-2352.

Park, H. W., Yoon, J., & Leydesdorff, L. (2016). The normalization of co-authorship networks in the bibliometric evaluation: the government stimulation programs of China and Korea. *Scientometrics*, *109* (2), 1017-1036.

Patra, S. K., Bhattacharya, P., & Verma, N. (2006).Bibliometric study of literature on bibliometrics. *DESIDOC Journal of Library & Information Technology*, *26* (1), 27-32.

Pearson, D., Henryks, J., Trott, A., Jones, P., Parker, G., Dumaresq, D., & Dyball, R. (2011). Local food: understanding consumer motivations in innovative retail formats. *British Food Journal*, *113* (7), 886-899.

Ponomariov, B., & Boardman, C. (2016). What is co-authorship?, *Scientometrics*, *109* (3),1939-1963.

Principato, L., Secondi, L., & Pratesi, C. A. (2015). Reducing food waste: an investigation on the behaviour of Italian youths. *British Food Journal*, *117* (2), 731-748.

Pritchard, A. (1969). Statistical bibliography or bibliometrics?, *Journal of Documentation*, *25* (4),348–349.

Qiu, J. P., Dong, K., & Yu, H. Q. (2014). Comparative study on structure and correlation among author co-occurrence networks in bibliometrics. *Scientometrics*, *101* (2), 1345-1360.

Röös, E., & Tjärnemo, H. (2011). Challenges of Carbon Labelling of Food Products: A Consumer Research Perspective, *British Food Journal, 113* (8), 982–996.

Santoro, G., Vrontis, D., & Pastore, A. (2017). External knowledge sourcing and new product development: evidence from the Italian food and beverage industry. *British Food Journal, 119* (11), 2373-2387.

Schwert, G. W. (1993). The journal of financial economics: A retrospective evaluation (1974–1991). *Journal of Financial Economics*, *33* (3), 369-424.

Scimagojr. (2021). *British Food Journal*. Retrieved fromhttps://www.scimagojr.com/journalsearch.php?q=144664&tip=sid&clean=0(accessed 28 January 2021).

Scopus. (2021). *Source details*. Retrieved from https://www.scopus.com/sourceid/144664?origin=resultslist (accessed 28 January 2021).

Sharma, P., Singh, R., Tamang, M., Singh, A. K., & Singh, A. K. (2020). Journal of teaching in travel & tourism: A bibliometric analysis. *Journal of Teaching in Travel & Tourism*, 1-22.

Silvennoinen, K., Katajajuuri, J. M., Hartikainen, H., Heikkilä, L., & Reinikainen, A. (2014). Food waste volume and composition in Finnish households. *British Food Journal*, *116* (6), 1058-1068.

Tarasuk, V., Dachner, N., & Loopstra, R. (2014). Food banks, welfare and food insecurity in Canada. *British Food Journal,* 1405–1417.

Teng, C. C., & Wang, Y. M. (2015). Decisional factors driving organic food consumption. *British Food Journal*, *117* (3), 1066-1081.

Thelwall, M. (2008). Bibliometrics to webometrics. *Journal of Information Science*, *34* (4), 605-621.

Universidade Federal De Lavras. (2021). *The University*. Retrieved from available at: http://ufla.br/en/ufla/ (accessed 30 January 2021).

University of Turin. (2021). *Departments*. Retrieved from https://en.unito.it/about-unito/structures/departments (accessed 30 January 2021).

Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping, *Scientometrics*, 523-538.

Van Leeuwen, T. (2006). The application of bibliometric analyses in the evaluation of social science research: Who benefits from it, and why it is still feasible. *Scientometrics,* 133–154.

Vanhonacker, F., Lengard, V., Hersleth, M., & Verbeke, W. (2010). Profiling European traditional food consumers. *British Food Journal*, 871–886.

Vila-Lopez, N., & Küster-Boluda, I. (2020). A bibliometric analysis on packaging research: Towards sustainable and healthy packages. *British Food Journal*, *123* (2), 684-701.

Vishwakarma, P., & Mukherjee, S. (2019). Forty-three years journey of Tourism Recreation Research: a bibliometric analysis. *Tourism Recreation Research*, *44* (4), 403-418.

Vosviewer. (2020). *Home*. Retrieved from https://www.vosviewer.com/ (accessed 10 September 2020).

Vrontis, D., Bresciani, S., & Giacosa, E. (2016). Tradition and innovation in Italian wine family businesses. *British Food Journal*, *118* (8), 1883-1897.

Wageningen University and Research. (2021). *Programmes.* Retrieved from https://www.wur.nl/en/Education-Programmes.htm (accessed 30 January 2021).

Wang, X., Xu, Z., & Škare, M. (2020). A bibliometric analysis of Economic Research-Ekonomska Istraživanja (2007–2019). *Economic Research-Ekonomska Istraživanja*, *33* (1), 865-886.

Wiedmann, K. P., Hennigs, N., Behrens, S. H., & Klarmann, C. (2014). Tasting green: An experimental design for investigating consumer perception of organic wine. *British Food Journal, 116* (2), 197-211.

Xie, B., Wang, L., Yang, H., Wang, Y., & Zhang, M. (2015). Consumer perceptions and attitudes of organic food products in Eastern China. *British Food Journal*, *117* (3), 1105-1121.

Xu, Z., & Yu, D. (2019). A Bibliometrics analysis on big data research (2009–2018). *Journal of Data, Information and Management*, *1* (1), 3-15.

Zakowska-Biemans, S. (2011). Polish consumer food choices and beliefs about organic food. *British Food Journal, 113* (1), 122-137.

Jomat

Journal of multidisciplinary academic tourism

2022, 7 (1): 55-67

https://doi.org/10.31822/jomat.2022-7-1-67

ISSN: 2645-9078

INFO PAGE

A bibliometric analysis of food studies: Evidence from British Food Journal

Abstract

The objective of the current study is to overview the British Food Journal publications from 2010 to 2020. To address our purpose, bibliometric and visualization analyses were used. Firstly, a total of 1892 documents published from 2010 to 2020 in the British Food Journal (BFJ) was obtained from the Web of Science database (WoS). Then, the analyses were made by running VOS viewer software. In the process of analyzing data, we have principally considered some bibliometric indicators such as the number of annual publications, the most productive organizations, the most cited papers, the most contributing countries, the most productive authors, the co-occurrence of author keywords, the co-authorship of countries, and the co-citation of authors. The results show that BFJ is one of the leading and prominent journals with the number of publications increasing each year according to the basic indicators mentioned above. Further to this, the most productive and contributing authors, institutions, and countries are mainly from European countries. The most common researched fields according to the co-occurrence of author keywords are listed as "consumer behavior, food safety, food products, food industry, food, nutrition, organic food, sustainability, and consumer".

Keywords: *Food, Food studies, British Food Journal, Bibliometric analysis, VOSviewer software, Web of Science*

Authors

Full Name	Author contribution roles	Contribution rate
Mert Öğretmenoğlu:	*Conceptualization, Methodology, Software, Writing - Review & Editing, Visualization, Supervision,*	*40%*
Sevinç Göktepe :	*Conceptualization, Methodology, Writing - Review & Editing,*	*30%*
Ozan Atsız:	*Conceptualization, Methodology, Writing - Review & Editing,*	*30%*

Author statement: *Author(s) declare(s) that All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.* ***Declaration of Conflicting Interests:*** *The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article*

This paper does not required ethics committee report
Justification: The methodology of this study does not require an ethics committee report.

Jomat

Journal of multidisciplinary academic tourism
2022, 7 (1): 81-96
www.jomat.org

ISSN: 2645-9078

Determining destination risk perceptions, their effects on satisfaction, revisit and recommendation intentions: Evidence from Sanliurfa/Turkey

Ali Rıza Mancı

Keywords:
Destination,
Recommendation intention,
Revisit intention,
Risk perception,
Satisfaction,
Sanliurfa,
Tourists

Article History:
Submitted: 29.08.2021
Accepted: 25.01.2022

ABSTRACT

Visitors' risk perception plays a vital role in their destination choice, intention to return, satisfaction and recommendations to others. At the same time, perceived risks affect destination image, which in turn causes increased or decreased demand for attractions of destinations. The aim of this study is to determine risk dimensions and their effects on recommendation and revisit intentions. Scale is most widely used in tourism research. This scale consists of six dimensions, namely, physical, time, social, performance, financial, and psychological risks, which consist of 28 items. A total of 471 respondents were collected via convenience sampling method among domestic tourists who visited Sanliurfa from May to June 2021. The results of the study indicated a weak inverse and significant relationship between the performance, social, physical, psychological, financial, and time risk perception of the participants and general satisfaction levels. Meanwhile, there is a moderately strong, inverse and significant relationship between all dimensions of risk perception among the participants and their recommendation and revisit intention. Thus, perceptions of risk dimensions have a strong negative influence on overall satisfaction, recommendation, and revisit intentions. By employing three regression models, the present study reported that time and psychological risks highly affect all dependent variables. Furthermore, overall satisfaction is significantly affected by the physical and performance dimensions. Recommendation intention is affected by the financial dimension beyond the aforementioned dimensions. The overall satisfaction levels of the participants were highly correlated with their recommendation levels and revisit intention. At the same time, their recommendation intention was highly correlated with their level of revisit intention. It might be said that visitors may change their future behaviors according to travel risk perceptions. Finally, the study revealed that understanding of customers risk perception is essential to all tourism and hospitality stakeholders.

Doi: https://doi.org/10.31822/jomat.2022-7-1-81

1. Introduction

Customer perceptions of processes and prospective outcomes influence their purchasing decisions (Pelaez, Chen, & Chen, 2019). As a result, understanding customer behavior is critical for a destination's present services to succeed and aids in the discovery of strategies to increase customer loyalty (Cong, 2021), leading to increased revenue and a powerful brand, which in turn improve customer retention (Eid, 2015). Satisfied customers share their happy experiences with their relatives. In other words, they are willing to repurchase and make recommendations to others. This can be observed in the review studies of Hasan, Ismail, and Islam (2017) and Lu (2021) and research by Cetinsoz and Ege (2013). They stated that some risk dimensions affect repeat behavior. Their findings support prior research that found a link between perceived risks and desire to return (An, Lee, & Noh, 2010).

Perceived risk has attracted the attention of many academics and has been acknowledged as a basic topic in customer behavior, with a large body of knowledge exploring its implications on customer decisions (Bettman, 1973; Sharifpour, Walters, Ritchie, & Winter, 2014). Particularly in tourism research, perceived risks connected with a destination have been proven to generate a significant impact on visitors' decisions to visit or reject a destination (Fuchs & Reichel, 2006; Karl, Muskat, & Ritchie, 2020).

Psychological (Kovačić *et al.*, 2019), economic (Tiwari, Das, & Dutta, 2019), social (Emami &

Research paper

Ali Rıza Mancı: *Asist. Prof., Harran University, Sanliurfa, Turkey, Email: armanci@harran.edu.tr, Orcid Id: 0000-0003-4618-5891*

Ranjbarian, 2019), personal (Osland, Mackoy, & McCormick, 2017), cultural (Reisinger & Mavondo, 2006), and demographic factors (Yazid *et al.*, 2018) are currently known regarding traveler-perceived risk dimensions through existing literature. In addition, some concepts including risk, values, motivations, expectations, attitudes, perceptions, satisfaction, trust, and loyalty are crucial and can modify the decision-making of tourist behavior in tourism contexts (Cohen, Prayag, & Moital, 2014). Scholars have investigated their effects on tourists' destination choices (Hasan *et al.*, 2017).

Risk is an important cognitive stimulus that scholars have been discussing in customer destination decision processes in tourism so far. In turn, the definition of risk perception is under debate (Wolff, Larsen, & Øgaard, 2019). Many scholars have defined risk differently because the impact of risk on tourists' decision-making processes varies from person to person, as "there are different levels of acceptable risk within the socio-psychological range of tourists" (Caber, González-Rodríguez, Albayrak, & Simonetti, 2020). The indefiniteness of the concept has been noted by many researchers (Le & Arcodia, 2018; Larsen, Doran, & Wolff, 2017; Reisinger & Mavondo, 2006; Yang & Nair, 2014). A common point of the definitions is the possibility or likelihood of loss when events occur. In other words, risk can be predicted and calculated by sides, but uncertainty cannot. It has unpredictable characteristics.

Absolute or real and subjective perceptions can be considered as two types of risks in the research agenda. While the probability of unfavorable outcomes with a real risk is weighted by severity (Wolff *et al.*, 2019) such as tsunamis, earthquakes, and other natural disasters, subjective risk is man-made and directly related to travelers, destinations, and business perceptions (Ritchie & Jiang, 2019). Thus, one of the effective factors of customer purchase behavior is their perception of what they prefer to purchase.

In the service industry, the importance of subjective risk as a fundamental determinant of customer behavior has been widely documented (Casidy & Wymer, 2016). For instance, Kozak, Crotts, & Law, (2007) revealed that international visitors predominantly expect to change their plans according to their perception of risk in a destination.

Determining the risk perceptions of visitors has become more important given that higher risk perception causes lower travel desire or intention (Floyd & Pennington-Gray, 2004). Moreover, (Sönmez & Graefe, 1998) pointed out that risk perceptions are significant in the decision-making of international visitors, reflecting views such as travel is hazardous and travelers are likely to become victims of terrorist attacks. The effects of terrorist attacks against tourists on tourism is also investigated by (Güvenek & Alptekin, 2015). They pointed out that terrorist attacks against visitors have a detrimental impact on the country's tourism. Parallel findings were maintained by many scholars (Baumert, de Obesso, & Valbuena, 2020; Mawby, Ozascilar, & Ziyalar, 2021). A similar effect has been observed in the Covid-19 pandemic encountered in recent years. For example, it is possible to say that the Covid-19 pandemic might have a significant impact on travelers' perceptions of hygiene and safety (Cetinkaya, Ozer, & Altuner, 2020). Additionally, Wen, Kozak, Yang, & Liu, (2021) indicated that Covid-19 altered the behaviors of tourists when they travel and the fear of Covid-19. Resulting people prefer to travel with small groups and become more "responsible tourists" (Rahmafitria, Suryadi, Oktadiana, Putro, & Rosyidie, 2021). Moreover, Dedeoğlu & Boğan (2021) pointed out that the association between some motivating elements and visit intention is moderated by consumers' Covid-19 risk perception and their trust in government.

Tourism risk also affects a destination's image (Ruan, Li, & Liu, 2017). Consequently, to attract more tourists, destinations must have a positive image and a low perceived risk level (Savascı, 2020). Tourist perceptions before, during, and after visits are influenced by image and risk, which shape tourists' behavioral intentions. In addition, intention to revisit and recommendation to others are affected precisely by the destination risk perception of visitors (Cui, Liu, Chang, Duan, & Li, 2016).

Customers' postponement, corrections, or cancellations of buying decisions are strongly affected by their risk perceptions, which are major factors in altering purchasing behavior and determining costumers' experiences and level of satisfaction. As a result, destination managers must be knowledgeable about terms that influence visitors' purchasing decisions (Gong & Liang, 2019). Destination risk perceptions may directly influence tourists' destination choices. Thus, it is crucial to evaluate the risk perception of tourists' visiting destinations.

Despite the growing amount of published research about travelers' risk perception, empirical studies are limited. Furthermore, there is no study on the risk perception of domestic visitors to Sanliurfa, Turkey, particularly. Because, it is critical to understand how visitors' perceptions of risk impact their willingness to travel to a destination (Hashim, Noor, Awang, Che Aziz, & Yusoff, 2018). To fill this knowledge gap, the aims of the study are (1) to evaluate dimensions of risks (performance, physical, time, psychological, financial and social) (2) to examine their effects on recommendations and revisit intentions. Thus, readers can expect to find relationship between risk dimensions, and revisit and recommendation intention. Thus, for it is important to understand customers risk perceptions to implement "strategies to be taken by the tourism and hospitality managers" (Koc & Villi, 2021).

2. Literature Review

Definition of risk and its dimensions

Since risk is an important concept in tourism research, there is a growing research interest in the risk perceptions of visitors. Apparently, risk and tourism are closely related to each other. Risk is broadly defined as the probability of negative outcomes of preference, and a hazard or dangerous chance was defined as the exposure to the possibility of injury or loss (Reisinger & Mavondo, 2005). In other words "it is not real, as it has not happened yet; risk is a possible future condition" (Clayton, Mustelier, & Korstanje, 2014).

Risk has an essential role in influencing visitor behavior, particularly in the context of travel and tourism, because tourism is an intangible service that is vulnerable to possible hazards and dangers (Hashim, *et al.*, 2018). According to previous research, uncertainty, worry, fear, and anxiety are all intertwined and proven to be closely connected to risk perception. In previous research, these concepts were used interchangeably, causing difficulty in interpreting visitors' experiences (Yang & Nair, 2014). Risk (perception) as a concept is an interdisciplinary phenomenon that has been studied by many researchers from various sciences such as physiology, sociology, economics, culture, management, particularly tourism destination management, etc. Some researchers pointed out that it is a comprehensive term which includes uncertainty and negative outcomes (Hashim, *et al.*, 2018).

First, although Jacoby and Kaplan (1972) introduced six risk perception dimensions, which are physical, time, performance, financial, social, and psychological risks (Hasan *et al.*, 2017), some scholars added such dimensions as political instability, safety, terrorism (Supani & Abd Hamid, 2020), and destination risk (Perić, Dramićanin, & Conić, 2021), as well as privacy risk especially in online tourism purchase cases (González-Reverté, Díaz-Luque, Gomis-López, & Morales-Pérez, 2018). The possible failure of personal data, that is, when details about a traveler are used without their knowledge or approval, is referred to as a privacy risk (Park & Tussyadiah, 2017). Source and satisfaction risks (Turkmendag & Uygur, 2020) have been mentioned in prior literature.

According to Caber *et al.* (2020), much more studies are needed to investigate the impact of risk on motivations of travel, assessments of destination image, and intention to visit. This study aims to examine tourists' risk perceptions regarding Turkey as a mixed-image destination and determine if the perceived risks about Turkey as a tourism destination change between first-time and repeat visitors (Karamustafa, Fuchs, & Reichel, 2013). Meanwhile, the amount of risk perception may vary between countries and local destinations (Fuchs & Reichel, 2006).

Some tourism studies have been conducted about the subjective risk perceptions of tourists particularly in destinations (Carballo, León, & Carballo, 2017; Cetinsoz & Ege, 2013; Deng & Ritchie, 2018; Kozak *et al.*, 2007; Mansfeld, Jonas, & Cahaner, 2016; Osland *et al.*, 2017; Ozascilar, Mawby, & Ziyalar, 2019; Sert, 2019), focusing on country cases (Fuchs & Reichel, 2006; Kırlar & Ozgen, 2020; Sofiichuk, 2018) and other tourism sectors such as the hotel industry (Şen Küpeli & Özer, 2020), purchasing online airline tickets (Kim, Kim, & Leong, 2005), restaurants (Jin, Line, & Merkebu, 2016), local festival visitors (Sohn, Lee, & Yoon, 2016), and crises and disasters (Aliperti *et al.*, 2019). Last year, with the emergence of the Covid-19 pandemic, travel risk research increased (Cetinkaya *et al.*, 2020; Zhan, Zeng, Morrison, Liang, & Coca-Stefaniak, 2020), including studies on how to reduce risks and types of risk reduction measures.

According to Rahman, Gazi, Bhuiyan, & Rahaman (2021), the pandemic of Covid- 19 has had a significant impact on travel risk and management perceptions. At the same time, Seçilmiş *et al.*, (2021), maintained that the association between trust and visit intention has been revealed to be moderated by Covid-19 anxiety. Additionally, Teeroovengadum, Seetanah, Bindah, Pooloo, &

Veerasawmy, (2021) were attempting to confirm the estimated influence of Covid-19 on the possibility of tourists visiting a destination based on perceived travel risk. Their findings revealed that perceived risk is likely to impact their decision to travel among visitors intending to travel in the aftermath of the Covid-19 pandemic. According to Teeroovengadum *et al.*, (2021), there are six key fears for those with the capacity to reduce destination travel risk associated with Covid-19. These are the destination's Covid-19 situation, national sanitary measures, accommodation, health-care and transportation services and ecotourism facilities. Parallel to these studies, Rahman, Gazi, Bhuiyan, & Rahaman, (2021) maintained that the Covid- 19 pandemic has had a significant impact on travel risk perceptions. Perception of risk in travel had a significant relationship with managing risk, delivery of services, transportation patterns, channels of distribution, avoidance of overcrowded destinations, hygiene, and safety. Meanwhile, Matiza, (2020) asserted that it is possible to predict the impact that the perceived risk associated with the pandemic will have on tourists' post-crisis behavior.

Asgarnezhad, Ebrahimpour, Zadeh, Banghinie, & Soltani, (2018) mentioned that risk factors associated with tourism such as financial, economic, social and cultural, psychological, environmental, health, political, and technical hazards affect destination image. Furthermore, destination image is significant as a moderator in the link between all dimensions of tourism risk and foreign visitor satisfaction and loyalty.

Many researchers have tried to determine the dimensions of risk. However, risk not only consists of dimensions. While making a holiday decision, one's perception may also change before, during, and after the trip. This may vary depending on the first visit or the occurrence of many visits (Wolff *et al.*, 2019). Meanwhile, studies have discussed the importance of measurement and definitions. In addition, the personal or sociodemographic characteristics of visitors may also affect their risk perceptions (Perić *et al.*, 2021).

Tourists take some risks associated with their travel and destination choices (Supani & Abd Hamid, 2020). Travelers have to consider risk factors when they choose destinations. Examples are unexpected situations such as terrorist attacks (Baumert, et al., 2020; Bayraktaroğlu, et al., 2021). The development of diseases and epidemics or other individual health problems as a result of tourism encounters is referred to as health risks (Chien, Sharifpour, Ritchie, & Watson, 2017; Huang, Dai, & Xu, 2020). Adverse weather conditions, public security, robberies, rape, and physical violence (Carballo *et al.*, 2017) fall under physical risk, which is referred to as the likelihood of physical danger or injury to travelers (Khan, Khan, Amin, & Chelliah, 2020).

The potential of tourists consuming tourism items for an excessive amount of time, i.e., time risk (Cui *et al.*, 2016), and the likelihood of unplanned expenditure and financial loss (Lu, 2021) may be realized only when the expected service performance falls short (Casidy & Wymer, 2016).

Performance risk is defined as the loss incurred when services do not match the expected needs of travelers (Brack & Benkenstein, 2014). It is therefore a quality-related risk (Keh & Pang, 2010). According to Oliver (1980), if a product or service cannot meet the expectations of customers, risk factors arise particularly associated with travel decision-making (Korstanje, 2009).

Psychological risks that lead to damages to one's self-esteem or engender guilt consists of harm against self-image, discomfort with travel, and a feeling of unwanted anxiety during travel. In other words, individual travelers' 'disappointing travel experience' (Sönmez & Graefe, 1998) and 'vacation will not reflect visitors' personality or self-image' (Simpson & Siguaw, 2008).

Social risk refers to the perceived possibility of social loss (e.g., social embarrassment) (Casidy & Wymer, 2016) or the the chance that a journey may not meet the expectations of others (travelers' family and friends) (Deng & Ritchie, 2018), which is psychological. Thus, it is necessary to evaluate risk with both travelers and destinations.

Time risk refers to the waste of time to make the journey (Karamustafa *et al.*, 2013), i.e., time consumed during the travel (Deng & Ritchie, 2018). In this vein, scholars have investigated tourists' risk perception to advise destination and tourism cooperation policymakers (Cong, 2021; Dedeoğlu & Boğan, 2021). Prior studies such as (Artuğer & Kendir, 2014; Ateşoğlu & Türker, 2013; Çetinsöz & Ege, 2012; Fuchs & Reichel, 2006; Koçoğlu, 2016) have identified six types (or dimensions) of perceived risk (Figure 1).

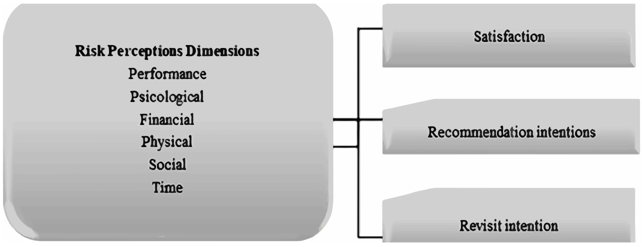

Figure 1. Study Design

Source: *Author*

Satisfaction

It is expected that many studies have attempted to quantify customer satisfaction, which is a key notion in tourism research. The higher the level of satisfaction among tourists, the greater their loyalty, recommendation, and consumption throughout their visit (Alrawadieh, Alrawadieh, & Kozak, 2019; Alrawadieh, Prayag, Alrawadieh, & Alsalameen, 2019; Huo & Miller, 2007).

Oliver, (1999) described as the result of the consumption of a product or service to fulfill the preferences, demands, and requirements of customers. Guliling & Aziz, (2018) asserted that satisfaction is a state of pleasure that results from meeting the demands of tourists. Formerly, customer satisfaction or dissatisfaction was measured by assessing the gap between consumer expectations and the actual situation as a result of consumption. This type of measurement is known as Oliver's expectation–disconfirmation model, which highlights the consumer's cognitive attitudes while excluding their emotional ones. That is to say, there are two major methods to analyzing tourist satisfaction: cognitive and emotional approaches. As in Oliver's expectancy–disconfirmation paradigm, the cognitive approach includes post-experience evaluation. Oliver defined satisfaction as the gap between one's expectations and one's actual travel experience. (Tse & Wilton, 1988), on the other hand, claimed that pre-visit expectation is not taken into account when evaluating satisfaction. As a result, independent of past expectations, satisfaction may be quantified; this is known as the emotional method. As a result, satisfaction is solely seen as an experience and psychological condition (Baker & Crompton, 2000).

Cong, (2021) examined the direct impacts of risk perception on tourists' satisfaction and repurchase intentions. In other words, there is an adverse relationship between the risk perception of tourists and both satisfaction and loyalty. On the contrary, (Sohn *et al.*, 2016) indicated that despite risk can cause people to have a poor view of a festival, it has no influence on satisfaction or future purchase intentions. The findings revealed that there is obvious causation between perception, satisfaction, and future intention. Not surprisingly, trust, customer satisfaction, and loyalty are all negatively affected by perceived risk (Jin *et al.*, 2016). According to the conclusion of some studies, a high level of perceived risk reduces consumer satisfaction (Hasan *et al.*, 2017). Consequently, it is hypothesized that:

H1: There is a significant relationship between risk perception dimensions and general satisfaction, which is negatively affected by risk perception dimensions.

Recommendation and Revisit Intentions

Behavioral intentions are behavioral tendencies in line with the evaluations of individuals' knowledge, emotions, and experiences (Savaşçı & Yıldırım, 2021). Recommendation intention and willingness to return are two important positive behavioral intentions for destination loyalty (i.e., revisit intention or revisit behavior) (Lv, Li, & McCabe, 2020). The probability of a visitor returning to a destination is referred to as revisit intention (Chen, Cheng, & Kim, 2020). That is "intention to revisit is the willingness to visit a destination again" (Soleimani & Einolahzadeh, 2018). "Repurchase behavior is a measure of consumers' reactions as a result of certain experiences" (Turkmendag & Uygur, 2020). In addition, Chen and Tsai (2007) identified travelers' behavioral intention as their assessment of the likelihood of returning to destination and recommending them to others. In the context of risk perception of visitors , a number of prior studies have revealed that risk perception of tourists may affect negatively re-visit (Tosun, Dedeoğlu, & Fyall, 2015) and recommendation intentions (Choo, Choo, & Kang, 2016; Nazir, Yasin, & Tat, 2021).

It is almost certain that perceived risk factors that influence a person's decision to travel significantly affect their satisfaction, and willingness to return, i.e., tourists' behavioral intentions (Fourie, *et al.*, 2020; Xie, Zhang, & Morrison, 2021). It is reported that the intention to revisit and recommend is significantly affected by perceived risk factors, similar to the concept of satisfaction. For example, Artuğer, (2015) found that visitors' perceptions of risks during their vacation in Marmaris influence their desire to return.

In addition, Chew & Jahari, (2014) examined the function of destination image in moderating the connection between perceived risks and repeat travelers' desire to return. Their study investigated the mediating effects of two types of destination images—cognitive and emotional—on the connection between perceived risks (physical, sociopsychological, and financial) and the desire to return. Parallel results can be observed in a study by Cetinsoz and Ege (2013). The influence of perceived risk levels concerning Alanya on return intention was evaluated using correlation and regression analysis. Several key risk dimensions were identified from the investigation, and it was discovered that some of them influenced their return.

Opposite the many risks during travel, positive psychology and visitor well-being have had behavioral implications that in turn affect repeat visitation, positive word-of-mouth (WOM) which has been revealed to be an important element in service marketing. This has been associated with reductions in consumer risk (Dedeoglu, Bilgihan, Ye, Buonincontri, & Okumus, 2018), and destination attachment (Vada, Prentice, Scott, & Hsiao, 2020). Also, Sert (2019) stated that perceived safety was observed to have an impact on risk reduction behavior, recommendation, and revisit intention. Similar result is observed in the study of (Hasan *et al.*, 2017). They maintained that high level of perceived risk negatively influences customer repurchase intention.

Using these as a departure point, the following research hypotheses are proposed:

H2: There is a significant relationship between risk perception dimensions and revisit intention, which is negatively affected by risk perception dimensions.

H3: There is a significant relationship between risk perception dimensions and recommendation intention, which is negatively affected by risk perception dimensions.

The aforementioned hypotheses are on the basis of theory of planned behavior which is based on the assumption that behaviors are based on a certain cause. According to theory, people think in advance about the consequences of their behavior, come to a decision to reach a result they choose, and implement this decision. In other words, behaviors occur as a result of a certain intention (Quintal, Lee, & Soutar, 2010). This intention achieves the result that was previously thought. As a result the subjective expectations, also associated with risk, could significantly impact consumer's behavior (Demirel & Ciftci, 2020; Huang, *et al.*, 2020; Pelaez *et al.*, 2019; Quintal *et al.*, 2010). People's perceptions of risk are likely to influence their future travel decisions (Quintal *et al.*, 2010). Based on the theory of planned behavior, the process of making a choice on future behavior is influenced by one's attitude toward the behavior, which is shaped by one's beliefs (is it beneficial or harmful). As a result, risk perception of visitors may affect their future behavioral intention (Gstaettner, Rodger, & Lee, 2017).

3. Materials and Method

The current investigation involved risk perceptions of domestic visitors and the effects of satisfaction and re(visit) and recommendation intentions. The site was selected from the cultural and historic city of Sanliurfa, which is located southeast of Turkey. Due to the pandemic conditions, the survey form was sent online to the visitors. A total of 471 respondents were collected via convenience sampling method among domestic tourists from May to June 2021 and answered an online questionnaire. Sample size was calculated with the help of the following formula as minimum 384:

$$n = \frac{Nt^2pq}{d^2(N-1) + t^2pq}$$

Where n: number of sample size, N: number of populations, t: Z value within %95 confidence interval as 1.96, p: probability of tourists to visit site 0.50, q: 1-p: 0.50, probability of not to visit d: margin of error 0,05 (Yamane, 2006).

The questionnaire has two main parts. The first covers visitors' personal characteristics such as gender, age, education level, occupation, etc. The second consists of a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree); it was used to measure the risk dimensions of visitors. This scale consists of six dimensions, namely, physical, time, social, performance, financial, and psychological risks, which consist of 28 items. The perceived risk scale was adapted from the studies of (Fuchs & Reichel, 2006) and (Artuğer & Kendir, 2014). In addition, the scale used in the study contains three items that measure general satisfaction, two items that measure recommending behavior, and three items that measure revisiting intention. The measures were adapted from (Hosany, Prayag, Deesilatham, Caušević, & Odeh, 2015) study.

In the study, the Kaiser–Meyer–Olkin (KMO) coefficient was used to determine whether the sample was sufficient, and Barlet's test was performed to determine whether the structure was significant. According to the result of Barlet's test, the structure is significant (Barlet's X2 = 1645.28, p = 0.01). This shows that the 471 participants included in the study are sufficient for the evaluation of the scale. Correlation and regression analysis were performed to examine the relationships between risk levels, overall satisfaction, recommendation, and repeat behavior. To test the internal consistency of the dimensions, Cronbach's alpha coefficient was calculated. Analyses were made using SPSS 25.0.

To test the hypotheses, a regression model was adopted. This is a method that examines the relationship between a dependent variable and one or more independent variables (Gujarati, 2004). Three different models were created in the study. In these models, satisfaction, recommendation, and revisit intentions were the dependent variables, while performance, psychological, financial, physical, social, and time values were the independent variables. The models used in the study are shown in Table 1.

Table 1. Models

Models	Dependent Variables	Independent Variables
Model 1	Satisfaction (sat)	Performance Psychological Financial Physical Social Time
Model II	Recommendation intentions (rec)	
Model III	Revisit intention (rev)	

Source: *Author*

As a result of the Kolmogorov Smirnov test, the data are normally distributed. In other words, distributions of Physical, Psychological, Financial, Time, Performance and Social risk dimensions were normal according to Kolmogorov Smirnov test (KS $p>0.05$). In addition, skewness and kurtosis values were checked for normal distribution. It was observed that the skewness and kurtosis values of the dimensions were between -1 and 1, which are acceptable limits. The fact that the number of participants in the study was at a high level, such as 471, was thought to be appropriate for normal distribution. The distributions of the dimensions of General Satisfaction, Recommendation and Revisit Intent were normal (KS $p>0.05$). Thus, it would be more appropriate to apply normal tests in the analyzes. The averages of the dimensions are as follows: Physical Risk average was 3.25±0.67, Psychological Risk average was 3.88±0.82, Financial Risk average was 3.86±0.77, Time Risk average was 3.89±0.85, Performance Risk average was 3.35±0.75 and Social risk dimension occurred at the average of 4.23±0.76. It was determined that the General Satisfaction mean was 2.73±0.53, the Recommendation mean was 2.02±0.90, and the Revisit Intention mean was 2.03±0.92 (Table 2).

Table 2: Dimension Scores and Normality Tests

Dimensions	KS z	p KS	X	s.s.	Skewness	Kurtosis
Physical Risks	0.07	0.14	3.25	0.67	-0.20	0.11
Psychological Risks	0.07	0.07	3.88	0.82	0.11	0.22
Financial Risks	0.05	0.23	3.86	0.77	0.42	0.34
Time Risks	0.08	0.06	3.89	0.85	0.73	0.45
Performance Risks	0.08	0.05	3.35	0.75	0.04	0.56
Social Risks	0.06	0.18	4.23	0.76	0.35	0.67
General Satisfaction	0.07	0.13	2.73	0.53	0.65	0.79
Recommendation Intention	0.03	0.29	2.02	0.90	0.96	0.90
Revisit Intention	0.06	0.17	2.03	0.92	0.07	0.01

Source: *Author*

4. Findings

Characteristics of Participants

Of the 471 valid respondents, 55.4% were married and 44.6% were single, while 57.1% were male and 42.9% were female. Out of the sample, 42.9% were aged 25–34, and 29.5% were aged 35–44. Around 86.6% finished university education and above. The participants were public servants (50.5%) and students (17.2%) (Table 3).

Table 3. Descriptive Analysis of Respondents

		n	%
Marital status	Married	261	55.4
	Single	210	44.6
Gender	Female	269	57.1
	Male	202	42.9
Age	18-24	94	20.0
	25-34	202	42.9
	35-44	139	29.5
	45-54	28	5.9
	55-64	5	1.1
	65 and over	3	0.6
Education	Without education	3	0.6
	Primary	2	0.4
	Middle	10	2.1
	College	48	10.2
	University	342	72.6
	Master and Ph.D.	66	14.0
Occupation	Public servant	238	50.5
	Student	81	17.2
	Civil servant	9	1.9
	Worker	36	7.6
	Retired	5	1.1
	Business	13	2.8
	Jobless	34	7.2
	Other	55	11.7

Source: *Author*

Cronbach's alpha was 0.93, showing that the scale was reliable. Thus, there was no need to remove

Table 4. Destination Risk Dimensions, Variance, and Internal Consistency

Expressions	Dimensions	Variance	Consistency
Extra expenses incurred during my visit (extra hotel expenses etc.)	Financial	15%	0.85
Visit to Sanliurfa is more expensive than other visits in the country			
My visit to Sanliurfa had a negative impact on my budget			
The food and drinks I consume can harm my health	Physical	13%	0.83
Infectious diseases are very common (oriental boil, swine flu, bird flu, HIV etc.)			
I may encounter snatching and theft in Sanliurfa			
I am likely to have a traffic accident in the city and traffic problems are very common			
There is a risk of natural disasters (earthquake, flood, fire, etc.).			
There are violent incidents in Sanliurfa			
There is a high risk of loss of luggage and other items			
Terrorist incidents are very common in Sanliurfa			
Danger due to political unrest			
The weather conditions in Sanliurfa are unfavorable	Performance	12%	0.80
Hotels in are not satisfactory in terms of service quality			
Locals are not friendly			
Sanliurfa is troubled in terms of cleanliness and hygiene			
Sanliurfa is a crowded city			
Personnel working in Sanliurfa hotels are not polite			
I am worried that visiting Sanliurfa will cause stress and tension	Psychological	11%	0.78
I am worried about feeling psychological discomfort while visiting			
Visiting Sanliurfa makes me nervous			
Visiting Sanliurfa does not fit my personality and image.	Social	11%	0.78
I am worried that my visit to Sanliurfa will damage my reputation among my friends			
I am worried that my visit to Sanliurfa will change the way my family thinks about me			
My visit to Sanliurfa does not match my social status			
Vacationing in Sanliurfa is a waste of time	Time	13%	0.81
I think my vacation time is wasted			
I think that the plan and schedule I made for the holiday in Sanliurfa wasted my time			

Source: *Author*

statements from the scale to increase reliability. The six dimensions were identified in their original form and constituted approximately 62% of the total variance. The explained variance percentage of the financial dimension was 15%, internal consistency 0.85; physical dimension 13%, 0.83; performance risk 12%, 0.80; psychological 11%, 0.78; social 11%, 0.78; and time 13%, 0.81 (Table 4). The KMO level was 0.89; thus, the sample size was sufficient. The structure was significant (Barlet's X2 = 1645.28, p = 0.01). This shows that the 471 participants included in the study were enough for the evaluation of the scale.

All dimensions namely, satisfaction, recommendation and revisit intentions are reliable. Table 5 shows their expressions, dimensions, explained variance and reliability.

Examining the Relationships between Risk Perceptions and General Satisfaction, Recommendation, and Revisit Intention

In the study, correlation analysis was conducted to examine the relationships between participants' risk perception dimensions and their general satisfaction and recommendation and revisit intentions (Table 6). There was a weak inverse and significant relationship between the performance, social, physical, psychological, financial, and time risk dimensions and satisfaction level. Meanwhile, there was a moderately strong, inverse, and significant relationship between all dimensions of risk perception and recommendation and revisit intentions.

Table 5. Reliability of Satisfaction, Recommendation, and Revisit Dimensions

Expressions	Dimensions	Explained Variance	Reliability
Overall, Sanliurfa visit was a mistake for me	Satisfaction	49%	0.80
Overall, a visit to Sanliurfa is a loss for me.			
Overall, I was satisfied with the Sanliurfa visit			
I will recommend my friends and family to visit Sanliurfa.	Recommendation	43%	0.77
I tell positive things about Sanliurfa to others			
There is a high probability that I will come to Sanliurfa again.	Revisit	45%	0.79
Sanliurfa is a safe city that I can visit again			
I would like to come to Sanliurfa again because it is worth coming			

Source: *Author*

Table 6. Examining the Relationships between Risk Perceptions and General Satisfaction, Recommendation and Revisit Intention

		Overall satisfaction	Recommendation intentions	Revisit intentions
Physical risks	r	-0.25*	-0.44*	-0.44*
	p	0.01	0.01	0.01
Psychological risks	r	-.023*	-0.55*	-0.58*
	p	0.01	0.01	0.01
Financial risks	r	-0.21*	-0.49*	-0.43*
	p	0.01	0.01	0.01
Time risks	r	-0.24*	-0.59*	-0.57*
	p	0.01	0.01	0.01
Performance risks	r	-0.22**	-0.53*	-0.51*
	p	0.01	0.01	0.01
Social Risk	r	-0.34*	-0.40*	-0.43*
	p	0.01	0.01	0.01

Source: *Author*

All risk dimensions negatively affect overall satisfaction and recommendation and revisit intentions. However, risk levels affect recommendation and revisit levels more. The level of satisfaction is less negatively affected by risks.

Examining the Effects of Risk Perceptions on the Levels of General Satisfaction and Recommendation and Revisit Intention

The model determined between the physical, time, performance, and psychological risk dimensions of general satisfaction was significant (F = 21.53, p = 0.01, p < 0.05). The percentage of explanation of the model was 44% (R2 = 0.44), which was high. The coefficients of the physical, time, performance, and psychological risk dimensions were also found to be significant (p = 0.01, p < 0.05). According to the results of the Durbin Watson test, there was no autocorrelation in the model (D.W.: 1.88). As a result, the model was found to be significant. The model obtained as a result of the analysis was as follows:

*General satisfaction (Y) = (-0.14) * Physical Risks (-0.26) * Time Risk (-0.13) * Performance Risk (-0.15) * Psychological Risks*

According to the results, the risk that most affected the general satisfaction level was time risk. An increase in time risk by one unit means that the general satisfaction level will decrease by 0.26 units. Then, performance risk, physical risk, and psychological risk were ranked according to their level of impact. Although weaker than the effect of time risk, the increase in performance risk, physical risk, and psychological risk perceptions will decrease general satisfaction by 0.13–0.15 units (Table 7).

Table 7. Risk Perceptions and General Satisfaction

Dependent variable	**Independent variables**					
	Physical Risks	Time risks	Performance risks	Psychological risks	**F** **Model**	**R^2**
	(β)	(β)	(β)	(β)		
Overall satisfaction	-0.14	-0.26	-0.13	-0.15	21,53	0.44
	p=0.01	p=0.01	p=0.01	p=0.01	p=0.01	

*** Regression analysis applied, D.W;1,88*
Source: *Author*

significant (F = 107.52, p = 0.01, p < 0.05). The percentage of explanation of the model was 64% (R2 = 0.64), which was high. The coefficients of time, psychological, and financial risk dimensions were also found to be significant (p = 0.01, p < 0.05). According to the results of the Durbin Watson test, no autocorrelation existed in the model (D.W.: 1.93). As a result, the model was found to be significant. The model obtained as a result of the analysis was as follows:

*Recommend (Y) = (-0.14) * Time Risk (-0.26) * Psychological Risk (-0.13) * Financial Risk*

Table 8. Risk perceptions and recommendation intention

	Independent variables			F Model	R^2
	Time risks	Psychological risks	Financial risks	107.52	
Dependent variable	(β)	(β)	(β)		
recommendation intention	-0.14	-0.26	-0.13		0.64
	p=0,01	p=0.01	p=0.01	p=0.01	

*** Regression analysis applied, D.W;1,93*
Source: *Author*

The model determined between time and psychological risk dimensions and revisit intention were significant (F = 158.30, p = 0.01, p < 0.05). The percentage of explanation of the model was 41% (R2 = 0.41), and this rate was high. The coefficients of the dimensions of time and psychological risks were also found to be significant (p = 0.01, p < 0.05). According to the results of the Durbin Watson test, no autocorrelation is present in the model (D.W.: 1.85). As a result, the model was found to be significant. The model obtained as a result of the analysis was as follows:

Revisit intention (Y) = (-0.34) * Time Risk (-0.36) * Psychological Risk

According to the results, the risk that most affected the level of revisit was psychological risk. An increase in psychological risk level by one unit means that the level of revisit will decrease by 0.36 units. Increasing the time risk level by one unit will decrease the recommendation level by 0.34 units.

Table 9. Risk perceptions and recommendation intention

	Independent variables		**F_{Model}**	**R^2**
Dependent variable	Psychological risks	Time risks	158.30	
	(β)	(β)		
Revisit intention	-0.36	-0.34		0.41
	p=0.01	p=0.01	p=0.01	

Source: *Author*

The overall satisfaction levels of the participants were highly correlated with their recommendation level and revisit intention. It can be predicted that the recommendation levels of participants with high general satisfaction levels will also be high (p = 0.62, p = 0.01). It can also be projected that participants with high general satisfaction levels will also have high revisit intentions (p = 0.65, p = 0.01). The recommendation levels of the participants were highly correlated with their level of revisit intention. This predicts that participants with high recommendation levels will also have high revisit intentions (p = 0.78, p = 0.01).

Table 10. Correlations between dependent variables

Dimentions		**Overall Satisfaction**	**Recommendation intention**	**Revisit intention**
Overall Satisfaction	r	1		
	p			
Recommendation intention	r	0.62^{*}	1	
	p	0.01		
Revisit intention	r	0.65^{*}	0.78^{**}	1
	p	0.01	0.01	

Source: *Author*

5. Discussion and Conclusion

Perceived risk is a concept that affects the purchasing decision process of customers (Ateşoğlu & Türker, 2013b). Particularly, the risks perceived by tourists about the destinations affect destination selection processes (Ritchie & Jiang, 2019; Ünal, 2020). Because of perceived risks, a significant percentage of visitors were able to cancel and postpone vacation plans to a variety of places (Cetinsoz & Ege, 2013). Hence, familiarity with visitor attitudes can help preserve the sustainability of a tourism destination (Sohn *et al.*, 2016). Additionally, satisfaction, recommendation to others, and repeat visitation intention of visitors play essential roles in promoting destination attractions. Thus, it is important to determine the perceived risk of tourists associated with destinations and countries.

Under these circumstances, the first aim of this article was to examine the risk dimensions of domestic tourists visiting Sanliurfa. After examining the dimensions, the study aimed to evaluate the relationship between the overall satisfaction, recommendation intention, repurchase behavior variables, and risk perception of visitors. In other words, the present study's goal was to determine the effects of risk perceptions on the aforementioned variables. Identifying risk may assist tourism and hospitality organizations to gain a competitive advantage, as eliminating or decreasing customers' risk perceptions helps tourist and hospitality businesses attract and keep customers (Koc & Villi, 2021). As a result, the evaluation of risk perceptions is valuable for both destination managers and visitors.

First, the study revealed six dimensions of risk perceptions as those of previous similar studies (Artuğer, 2015). He stated that the risk perception of tourists has five dimensions, which are sociopsychological, time, financial, and performance risks, which are parallel to those of the current study. The conclusion from this study is similar to that in (Karamustafa *et al.*, 2013), whose findings revealed six risk dimensions including time and social, financial, physical risks, etc. However, this study provided little evidence to support the findings of an earlier study by (Zhan *et al.*, 2020), who pointed out that a risk perception scale has only four dimensions (health, financial, social, and performance). Their study differed from the present one with the omission of physical and time dimensions. As a result, theoretically, the study validated the six dimensions of risk as in the studies of Ateşoğlu and Türker (2013), Fuchs and Reichel (2006), Koc and Villi (2020), and Artuğer and Kendir (2014). Moreover, some researchers asserted that there are other factors affecting risk perceptions; for example, (Çetinsöz, 2011) introduced five factors: satisfaction, time, physical, social-physiological, functional, or operational risks, namely, performance risk. In conclusion, the risk perception of visitors usually includes five or six dimensions. These can be seen in detail in Cui *et al.* (2016), which provided an overview of tourism risk perception.

Second, consistent with prior research in tourism (Asgarnezhad et al., 2018; Casidy & Wymer, 2016), this study provided empirical evidence of a link between satisfaction and all risk dimensions except financial and social risks. Financial, social, performance, and psychological risks have substantial reverse effects on satisfaction (Casidy & Wymer, 2016). Meanwhile, (Asgarnezhad et al., 2018) found a connection between all dimensions of travel risk and international visitors' satisfaction and revisit and recommendation intentions. Cong (2021) examined the direct impact of perceived risk on tourist satisfaction and loyalty. A similar pattern of results was found by Nguyen Viet, Dang, and Nguyen (2020) in that satisfaction is directly affected by perceived risk. But the conclusion of this study differs from that of Sohn *et al.* (2016), who stated that although risk can cause people to have a poor view of a festival, it has no impact on satisfaction or future purchase intentions. Finally, the findings indicated an inverse link among perceived risks and customer purchase decisions (Li *et al.*, 2020). In addition, several researchers have found that a high degree of risk perception reduces the satisfaction of customers and therefore has a negative impact on customer repurchase intent (Beneke, Flynn, Greig, & Mukaiwa, 2013; Jin *et al.*, 2016; Li & Murphy, 2013).

Theoretical studies have revealed that risk perceptions have a strong negative influence on repeat behavior, particularly time and psychological dimensions. As identified by (Cetinsoz & Ege, 2013), there is a correlation between risk perception and repeat purchase intention. Although the current paper states that only time and psychological risks affect revisit intention, Cetinsoz and Ege (2013) pointed out that physical, satisfaction, and time risk dimensions impact the willingness to return. They discovered that the social, psychological, and performance risk dimensions had no effect on visitors' desire to return to Alanya.

Lu, (2021) asserted that the perception of environmental risk has a substantial influence on return intention, but sociopsychological risk enhances revisit intention. Additionally, tourists who perceived a low risk of these natural catastrophes had a higher favorable destination image, overall satisfaction, and behavioral intention than those who perceived a high risk (Tavitiyaman & Qu, 2013). In contrast, it was observed that perceived risk had no effect on behavioral intention (Savaşçı & Yıldırım, 2021). Similar results can be seen in the study of (Sohn *et al.*, 2016), who showed that although risk might contribute to an unfavorable perception of a festival, it has no influence on satisfaction or future purchase behavior. Along with their findings, there is a straightforward correlation among perception, satisfaction, and future intention. In accordance with the literature (i.e., (Sohn *et al.*, 2016), risk perception was negatively linked with all other factors, while all other variables were positively correlated with each other.

Third, the results of the study indicated a weak inverse and significant relationship between the performance, social, physical, psychological, financial, and time risk dimensions and participants' perception and general satisfaction levels. These results were confirmed by Li and Murphy (2013), who found that risk factors might have an adverse influence on customer satisfaction. Meanwhile, there is a moderately strong, inverse, and significant relationship between all dimensions of participants' risk perception and their recommendation and revisit intention. Thus, perceptions of risk dimensions have a strong negative influence on overall satisfaction and recommendation and revisit intentions (Hasan *et al.*, 2017).

Fourth, by employing three regression models, the present study reported that time and psychological risks highly affect all dependent variables. Furthermore, overall satisfaction was significantly affected by physical and performance dimensions. Recommendation intention was affected by the financial dimension beyond the aforementioned dimensions. Finally, the overall satisfaction levels of the participants were highly correlated with their recommendation levels and revisit intention. At the same time, their recommendation intention was highly correlated with their revisit intention.

The present study implies that because of the various significant influences on customer loyalty, (i.e., repeat visitation and recommendation intention), time, psychological, and financial risk dimensions should be given strict consideration by destination marketers. The findings support the ideas of some studies such as Cetinsoz and Ege (2013). The study's conclusions can help with effective marketing and promotion initiatives to satisfy the needs of tourists.

One of the limitations of the study is that it considered the "effects of the tourists' past experiences on the behavioral intention" (Fuchs &

Reichel, 2006), while some research collected data from visitors before purchasing travel (Qi, Gibson, & Zhang, 2009). Another limitation of this study is the limited coverage of the effect of the recent pandemic conditions on visitor behavior. In future research, international tourists' perceived risk dimensions can be evaluated. This paper may contribute knowledge especially to tourist and tourism service operators as guidelines on how to manage risks as well as ensure the sustainability of the business.

References

Aliperti, G., Sandholz, S., Hagenlocher, M., Rizzi, F., Frey, M., & Garschagen, M. (2019). Tourism, crisis, disaster: an interdisciplinary approach. *Annals of Tourism Research*, *79*, 102808. https://doi.org/10.1016/j.annals.2019.102808

Alrawadieh, Z., Alrawadieh, Z., & Kozak, M. (2019). Exploring the impact of tourist harassment on destination image, tourist expenditure, and destination loyalty. *Tourism Management*, *73*(January), 13–20. https://doi.org/10.1016/j.tourman.2019.01.015

Alrawadieh, Z., Prayag, G., Alrawadieh, Z., & Alsalameen, M. (2019). Self-identification with a heritage tourism site, visitors' engagement and destination loyalty: the mediating effects of overall satisfaction. *Service Industries Journal*, *2069*. https://doi.org/10.1080/02642069.2018.1564284

An, M., Lee, C., & Noh, Y. (2010). Risk factors at the travel destination: their impact on air travel satisfaction and repurchase intention. *Service Business*, *4*(2), 155–166. https://doi.org/10.1007/s11628-010-0094-2

Artuğer, S. (2015). The Effect of Risk Perceptions on Tourists ' Revisit Intentions. *European Journal of Business and Management*, *7*(2), 36–43.

Artuğer, S., & Kendir, H. (2014). Yerli Turistlerin Destinasyon Risk Algılamaları: Afyonkarahisar İli Örneği. In *1. International Congress of Tourism and Management Researches*.

Ateşoğlu, İ., & Türker, A. (2013). Türkiye'de tatil yapan turistlerin algıladıkları risk türleri. *Seyahat ve Otel İşletmeciliği Dergis*, *10*(3), 24–44.

Baker, D. A., & Crompton, J. L. (2000). Quality, satisfaction and behavioral intentions. *Annals of Tourism Research*, *27*(3), 785–804. https://doi.org/10.1016/S0160-7383(99)00108-5

Baumert, T., de Obesso, M. M., & Valbuena, E. (2020). How does the terrorist experience alter consumer behaviour? An analysis of the Spanish case. *Journal of Business Research*, *115*(June), 357–364. https://doi.org/10.1016/j.jbusres.2019.11.085

Bayraktaroğlu, E., Gürsoy, S., Günay, F., & Karakuş, Y. (2021). Geopolitical Risks and International Tourist Arrivals to Turkey: a Causality Study. *Anais Brasileiros De Estudos Turísticos - ABET*, 11. https://doi.org/10.5281/zenodo.5771032

Beneke, J., Flynn, R., Greig, T., & Mukaiwa, M. (2013). The influence of perceived product quality, relative price and risk on customer value and willingness to buy: a study of private label merchandise. *Journal of Product & Brand Management, 22(3), 218–228*

Bettman, J. R. (1973). Perceived Risk and Its Components: A Model and Empirical Test. *Journal of Marketing Research*, *10*(2), 184. https://doi.org/10.2307/3149824

Caber, M., González-Rodríguez, M. R., Albayrak, T., & Simonetti, B. (2020). Does perceived risk really matter in travel behaviour? *Journal of Vacation Marketing*, *26*(3), 334–353. https://doi.org/10.1177/1356766720927762

Carballo, R. R., León, C. J., & Carballo, M. M. (2017). The perception of risk by international travellers. *Worldwide Hospitality and Tourism Themes*, *9*(5), 534–542. https://doi.org/10.1108/WHATT-07-2017-0032

Casidy, R., & Wymer, W. (2016). A risk worth taking: Perceived risk as moderator of satisfaction, loyalty, and willingness-to-pay premium price. *Journal of Retailing and Consumer Services*, *32*, 189–197. https://doi.org/10.1016/j.jretconser.2016.06.014

Cetinkaya, O., Ozer, Y., & Altuner, G. (2020). Evaluation of touristic travel risk perception and hygiene-safety perception in the Covid-19 process. *Tourism and Recreation*, *2*(2), 78–83.

Çetinsöz, B. C. (2011). *Uluslararası Seyahatlerde Turistlerin Çekim Yerinde Algıladıkları Risklerin Tekrar Ziyaret Etme Niyetlerine Etkileri*. Adnan Menderes Üniversitesi, Sosyal Bilimler Enstitüsü, Turizm İşletmeciliği Anabilim Dalı.

Cetinsoz, B. C., & Ege, Z. (2013). Impacts of perceived risks on tourists' revisit intentions. *Anatolia An International Journal of Tourism and Hospitality Research*, *24*(2), 173–187. https://doi.org/10.1080/13032917.2012.743921

Çetinsöz, B. C., & Ege, Z. (2012). Turistlerin Demografik Özelliklerine Göre Risk Azaltma Stratejileri: Alanya Örneği. *Anatolia: Turizm Araştırmaları Dergisi*, *23*(2), 159–172. https://doi.org/10.17123/atad.77865

Chen, C. F., & Tsai, D. (2007). How destination image and evaluative factors affect behavioral intentions?. *Tourism management,* 28(4), 1115-1122.

Chen, X., Cheng, Z. F., & Kim, G. B. (2020). Make it memorable: Tourism experience, fun, recommendation and revisit intentions of Chinese outbound tourists. *Sustainability (Switzerland)*, *12*(5), 1–24. https://doi.org/10.3390/su12051904

Chew, E. Y. T., & Jahari, S. A. (2014). Destination image as a mediator between perceived risks and revisit intention: A case of post-disaster Japan. *Tourism Management*, *40*, 382–393. https://doi.org/10.1016/j.tourman.2013.07.008

Chien, P. M., Sharifpour, M., Ritchie, B. W., & Watson, B. (2017). Travelers' health risk perceptions and protective behavior: *A psychological approach. Journal of Travel Research,* 56(6), 744-759.

Choo, H. K., Choo, Y. (Clara), & Kang, H. M. (2016). Do sport tourists' perceived risks affect their involvement and intention to (re)visit? An empirical study for risk-reduction strategies. *International Journal of Sports Marketing and Sponsorship*, *17*(1), 19–36. https://doi.org/10.1108/IJSMS-02-2016-002

Clayton, A., Mustelier, L., & Korstanje, M. E. (2014). Understanding Perceptions and Attitudes to Risk in the Tourism Industry. *International Journal of Religious Tourism and Pilgrimage*, *2*(1), 2014. Retrieved from https://arrow.dit.ie/ijrtp/vol2/iss1/8

Cohen, S. A., Prayag, G., & Moital, M. (2014). Consumer behaviour in tourism: Concepts, influences and opportunities. *Current Issues in Tourism*, *17*(10), 872–909. https://doi.org/10.1080/13683500.2013.850064

Cong, L. C. (2021). Perceived risk and destination knowledge in the satisfaction-loyalty intention relationship: An empirical study of european tourists in vietnam. *Journal of Outdoor Recreation and Tourism*, *33*(October 2020), 100343. https://doi.org/10.1016/j.jort.2020.100343

Cui, F., Liu, Y., Chang, Y., Duan, J., & Li, J. (2016). An overview of tourism risk perception. *Natural Hazards*, *82*(1), 643–658. https://doi.org/10.1007/s11069-016-2208-1

Dedeoglu, B. B., Bilgihan, A., Ye, B. H., Buonincontri, P., & Okumus, F. (2018). The impact of servicescape on hedonic value and behavioral intentions: The importance of previous experience. *International Journal of Hospitality Management*, *72*(April 2017), 10–20. https://doi.org/10.1016/j.ijhm.2017.12.007

Dedeoğlu, B. B., & Boğan, E. (2021). The motivations of visiting upscale restaurants during the Covid-19 pandemic: The role of risk perception and trust in government. *International Journal of Hospitality Management*, *95*(February). https://doi.org/10.1016/j.ijhm.2021.102905

Deng, R., & Ritchie, B. W. (2018). International university students' travel risk perceptions: An exploratory study. *Current Issues in Tourism*, *21*(4). https://doi.org/10.1080/13683500.2016.1142939

Eid, R. (2015). Integrating Muslim Customer Perceived Value, Satisfaction, Loyalty and Retention in the Tourism Industry: An empirical study. *International Journal of Tourism Research*, *17*(3), 249–260. https://doi.org/10.1002/jtr.1982

Emami, A., & Ranjbarian, B. (2019). The Perceived Risk of Iran as a Tourism Destination (A Mixed Method Approach). *Iranian Journal of Management Studies*, *12*(1), 45–67. https://doi.org/10.22059/ijms.2018.245946.672909

Floyd, M. F., & Pennington-Gray, L. (2004). Profiling risk perceptions of tourists. *Annals of Tourism Research*, *31*(4), 1051–1054. https://doi.org/10.1016/j.annals.2004.03.011

Fuchs, G., & Reichel, A. (2006). Tourist destination risk perception: The case of Israel. *Journal of Hospitality and Leisure Marketing*, *14*(2), 83–108. https://doi.org/10.1300/J150v14n02_06

Fourie, J., Rosselló-Nadal, J., & Santana-Gallego, M. (2020). Fatal attraction: How security threats hurt tourism. *Journal of Travel Research*, 59(2), 209-219.

Soleimani, G. A., & Einolahzadeh, H. (2018). The influence of service quality on revisit intention: The mediating role of WOM and satisfaction (Case study: Guilan travel agencies). *Cogent Social Sciences*, *4*(1), 1–14. https://doi.org/10.1080/23311886.2018.1560651

Gong, X., & Liang, M. (2019). Study on Risk Perception of Domestic Cruise Tourists. *IOP Conference Series: Earth and Environmental Science*, *252*(4), 1–7. https://doi.org/10.1088/1755-1315/252/4/042032

González-Reverté, F., Díaz-Luque, P., Gomis-López, J. M., & Morales-Pérez, S. (2018). Tourists' risk perception and the use of mobile devices in beach tourism destinations. *Sustainability (Switzerland)*, *10*(2). https://doi.org/10.3390/su10020413

Guliling, H. H., & Aziz, Y. A. (2018). Historical Service Quality Assessment of Malaysia's World Heritage Site. *Journal of International Business, Economics and Entrepreneurship*, *3*(2), 12–22. Retrieved from https://jibe.uitm.edu.my/images/dec2018/Hasnawatifull.pdf

Gujarati, D. (2004). Basic Economecrics. Fourth Edition. The McGraw−Hil: New York.

Güvenek, B., & Alptekin, V. (2015). Turistlere Yönelik Terör Saldırılarının Turizme Etkisi : Türkiye

Üzerine Ampirik Bir Çalışma. *Selçuk Üniversitesi / Sosyal Bilimler Meslek Yüksekokulu Dergisi*, *17*(1), 21–38.

Hasan, M. K., Ismail, A. R., & Islam, M. F. (2017). Tourist risk perceptions and revisit intention: A critical review of literature. *Cogent Business and Management*, *4*(1). https://doi.org/10.1080/23311975.2017.1412874

Hashim, N. A. A. N., Noor, M. A. M., Awang, Z., Che Aziz, R., & Yusoff, A. M. (2018). The Influence of Tourist The Influence of Tourist Perceived Risk towards Travel Intention : A Conceptual Paper. *International Journal of Academic Research in Business & Social Sciences*, *8*(16), 92–102. https://doi.org/10.6007/IJARBSS/v8-i16/5120

Hosany, S., Prayag, G., Deesilatham, S., Caušević, S., & Odeh, K. (2015). Measuring Tourists' Emotional Experiences. *Journal of Travel Research*, *54*(4), 482–495. https://doi.org/10.1177/0047287514522878

Huang, X., Dai, S., & Xu, H. (2020). Predicting tourists' health risk preventative behaviour and travelling satisfaction in Tibet: Combining the theory of planned behaviour and health belief model. *Tourism Management Perspectives*, *33*. https://doi.org/10.1016/j.tmp.2019.100589

Huo, Y., & Miller, D. (2007). Satisfaction Measurement of Small Tourism Sector (Museum): Samoa. *Asia Pacific Journal of Tourism Research*, *12*(2), 103–117. https://doi.org/10.1080/10941660701243331

Jacoby, J., & Kaplan, L. B. (1972). The components of perceived risk. *ACR special volumes*.

Jin, N., Line, N. D., & Merkebu, J. (2016). The Impact of Brand Prestige on Trust, Perceived Risk, Satisfaction, and Loyalty in Upscale Restaurants. *Journal of Hospitality Marketing and Management*, *25*(5), 523–546. https://doi.org/10.1080/19368623.2015.1063469

Karamustafa, K., Fuchs, G., & Reichel, A. (2013). Risk Perceptions of a Mixed-Image Destination: The Case of Turkey's First-Time Versus Repeat Leisure Visitors. *Journal of Hospitality Marketing and Management*, *22*(3), 243–268. https://doi.org/10.1080/19368623.2011.641709

Karl, M., Muskat, B., & Ritchie, B. W. (2020). Which travel risks are more salient for destination choice? An examination of the tourist's decision-making process. *Journal of Destination Marketing & Management*, *18*(January), 100487. https://doi.org/10.1016/j.jdmm.2020.100487

Khan, M. J., Khan, F., Amin, S., & Chelliah, S. (2020). Perceived risks, travel constraints, and destination perception: A study on sub-saharan African medical travellers. *Sustainability*, 12(7), 2807.

Kim, L. H., Kim, D. J., & Leong, J. K. (2005). The effect of perceived risk on purchase intention in purchasing airline tickets online. *Journal of Hospitality and Leisure Marketing*, *13*(2), 33–53. https://doi.org/10.1300/J150v13n02_04

Kırlar, B., & Ozgen, I. (2020). Turistlerin Terör Riski Algısı ve Riskle Başa Çıkma Davranışları. *Anatolia: Tourism Research Journal*, *31*(2), 125–137. https://doi.org/10.17123/atad.777512

Koc, E., & Villi, B. (2021). Transformation of tourism and hospitality customers' perception of risk and customers' needs for control. *Journal of Multidisciplinary Academic Tourism*, *6*(2), 117–125. https://doi.org/10.31822/jomat.2021-6-2-117

Koçoğlu, C. M. (2016). Risk algısının yeniden satın alma davranışı üzerindeki etkisi: Havayolu sektöründe bir araştırma. *Akademik Bakış Dergisi*, *Eylül-Ekim*(57), 246–263.

Korstanje, M. (2009). Re-visitng risk perception theory in the context of travel. *E-Review of Tourism Research,* 7(4), 68–81. Retrieved from http://ertr.tamu.edu

Kovačić, S., Jovanović, T., Miljković, D., Lukić, T., Marković, S. B., Vasiljević, D. A., … Ivkov, M. (2019). Are Serbian tourists worried? The effect of psychological factors on tourists' behavior based on the perceived risk. *Open Geosciences*, *11*(1), 273–287. https://doi.org/10.1515/geo-2019-0022

Kozak, M., Crotts, J. C., & Law, R. (2007). The impact of the perception of risk on international travellers. *International Journal of Tourism Research*, *9*(4), 233–242. https://doi.org/10.1002/jtr.607

Larsen, S., Doran, R., & Wolff, K. (2017). How psychology can stimulate tourist experience studies. *Visitor experience design*, 5, 13-29.

Li, Z., Sha, Y., Song, X., Yang, K., ZHao, K., Jiang, Z., & Zhang, Q. (2020). Impact of risk perception on customer purchase behavior: a meta-analysis. *Journal of Business & Industrial Marketing*, *35*(1), 76–96. https://doi.org/10.1108/JBIM-12-2018-0381

Lu, H. Y. (2021). An Investigation of Factors Influencing the Risk Perception and Revisit Willingness of Seniors. *Asia Pacific Management Review*, (xxxx). https://doi.org/10.1016/j.apmrv.2021.01.002

Lv, X., Li, C., & McCabe, S. (2020). Expanding theory of tourists' destination loyalty: The role of sensory impressions. *Tourism Management*, *77*. https://doi.org/10.1016/j.tourman.2019.104026

Mansfeld, Y., Jonas, A., & Cahaner, L. (2016). Between Tourists' Faith and Perceptions of Travel Risk. *Journal of Travel Research*, *55*(3), 395–413. https://doi.org/10.1177/0047287514550099

Maria Gstaettner, A., Rodger, K., & Lee, D. (2017). Visitor perspectives of risk management in a natural tourism setting: An application of the Theory of Planned Behaviour. *Journal of Outdoor Recreation and Tourism*, *19*(October 2016), 1–10. https://doi.org/10.1016/j.jort.2017.04.001

Matiza, T. (2020). Post-Covid-19 crisis travel behaviour: towards mitigating the effects of perceived risk. *Journal of Tourism Futures*, *2012*(April). https://doi.org/10.1108/JTF-04-2020-0063

Mawby, R. I., Ozascilar, M., & Ziyalar, N. (2021). Risk, safety and security among visitors to Istanbul. *Tourism and Hospitality Research*, *21*(1), 61–72. https://doi.org/10.1177/1467358420948918

Nazir, M. U., Yasin, I., & Tat, H. H. (2021). Destination image's mediating role between perceived risks, perceived constraints, and behavioral intention. *Heliyon*. https://doi.org/10.1016/j.heliyon.2021.e07613

Nguyen Viet, B., Dang, H. P., & Nguyen, H. H. (2020). Revisit intention and satisfaction: The role of destination image, perceived risk, and cultural contact. *Cogent Business and Management*, *7*(1). https://doi.org/10.1080/23311975.2020.1796249

Oliver, R. L. (1999). Whence Consumer Loyalty? *Journal of Marketing*, *63*(1999), 33. https://doi.org/10.2307/1252099

Osland, G. E., Mackoy, R., & McCormick, M. (2017). Perceptions of personal risk in tourists' destination choices: nature tours in Mexico. *European Journal of Tourism, Hospitality and Recreation*, *8*(1), 38–50. https://doi.org/10.1515/ejthr-2017-0002

Ozascilar, M., Mawby, R. I., & Ziyalar, N. (2019). Perceptions of risk on vacation among visitors to Istanbul. *Safer Communities*, *18*(1), 16–29. https://doi.org/10.1108/SC-06-2018-0017

Park, S., & Tussyadiah, I. P. (2017). Multidimensional Facets of Perceived Risk in Mobile Travel Booking. *Journal of Travel Research*, *56*(7), 854–867. https://doi.org/10.1177/0047287516675062

Pelaez, A., Chen, C. W., & Chen, Y. X. (2019). Effects of Perceived Risk on Intention to Purchase: A Meta-Analysis. *Journal of Computer Information Systems*, *59*(1), 73–84. https://doi.org/10.1080/08874417.2017.1300514

Perić, G., Dramićanin, S., & Conić, M. (2021). The impact of serbian tourists' risk perception on their travel intentions during the Covid-19 pandemic. *European Journal of Tourism Research*, *27*(1), 1–22.

Quintal, V. A., Lee, J. A., & Soutar, G. N. (2010). Risk, uncertainty and the theory of planned behavior: A tourism example. *Tourism Management*, *31*(6), 797–805. https://doi.org/10.1016/j.tourman.2009.08.006

Rahmafitria, F., Suryadi, K., Oktadiana, H., Putro, H. P. H., & Rosyidie, A. (2021). Applying knowledge, social concern and perceived risk in planned behavior theory for tourism in the Covid-19 pandemic. *Tourism Review*, *76*(4), 809–828. https://doi.org/10.1108/TR-11-2020-0542

Rahman, M. K., Gazi, M. A. I., Bhuiyan, M. A., & Rahaman, M. A. (2021). Effect of Covid-19 pandemic on tourist travel risk and management perceptions. *Plos One*, *16*(9), e0256486. https://doi.org/10.1371/journal.pone.0256486

Reisinger, Y., & Mavondo, F. (2005). Travel anxiety and intentions to travel internationally: Implications of travel risk perception. *Journal of Travel Research*, *43*(3), 212–225. https://doi.org/10.1177/0047287504272017

Reisinger, Y., & Mavondo, F. T. (2006). Cultural differences in travel risk perception. *Journal of Travel and Tourism Marketing*, *20*(1), 13–31. https://doi.org/10.1300/J073v20n01_02

Ritchie, B. W., & Jiang, Y. (2019). A review of research on tourism risk, crisis and disaster management: Launching the annals of tourism research curated collection on tourism risk, crisis and disaster management. *Annals of Tourism Research*, *79*. https://doi.org/10.1016/j.annals.2019.102812

Ruan, W. Q., Li, Y. Q., & Liu, C. H. S. (2017). Measuring tourism risk impacts on destination image. *Sustainability (Switzerland)*, *9*(9), 1–15. https://doi.org/10.3390/su9091501

Savascı, U. (2020). *Destinasyon İmajı ve Algılanan riskin, Davranışsal Niyete Etkisi: Bodrum Örneği*. Canakkale Onsekiz Mart Üniversitesi, Lisansüstü Eğitim Enstitüsü, Seyahat İşletmeciliği ve Turizm Rehberliği Anabilimdalı, Yüksek Lisans Tezi.

Savaşçı, U., & Yıldırım, H. M. (2021). Destinasyon İmajı ve Algılanan Riskin, Davranışsal Niyete Etkisi: Bodrum Örneği. *GSI Journals Serie A: Advancements in Tourism Recreation and Sports Sciences*, *4*(2), 17–36. https://doi.org/10.53353/atrss.887811

Seçilmiş, C., Özdemir, C., & Kılıç, İ. (2021). How travel influencers affect visit intention? The roles of cognitive response, trust, Covid-19 fear and confidence in vaccine. *Current Issues in Tourism*, 1–16. https://doi.org/10.1080/13683500.2021.1994528

Şen Küpeli, T., & Özer, L. (2020). Assessing perceived risk and perceived value in the hotel industry: an integrated approach. *Anatolia An International Journal of Tourism and Hospitality Research*, *31*(1), 111–130. https://doi.org/10.1080/13032917.2020.1711785

Sert, A. N. (2019). The Impact of Tourist Safety on Risk Reduction Behavior, Recommendation and

Revisit Intention: A Case Study on Iranian Tourists in Istanbul. *Anemon Journal of Social Sciences of Mus Alp. University*, *7*(5), 71–82.

Sharifpour, M., Walters, G., Ritchie, B. W., & Winter, C. (2014). Investigating the Role of Prior Knowledge in Tourist Decision Making: A Structural Equation Model of Risk Perceptions and Information Search. *Journal of Travel Research*, *53*(3), 307–322. Link

Simpson, P. M., & Siguaw, J. A. (2008). Perceived travel risks: The traveller perspective and manageability. *International Journal of Tourism Research,* 10(4), 315-327.

Sofiichuk, K. (2018). Risks of the Tourism Industry in Ukraine. *Journal of Environmental Management and Tourism*. Link

Sohn, H. K., Lee, T. J., & Yoon, Y. S. (2016). Relationship between Perceived Risk, Evaluation, Satisfaction, and Behavioral Intention: A Case of Local-Festival Visitors. *Journal of Travel and Tourism Marketing*, *33*(1), 28–45. Link

Sönmez, S. F., & Graefe, A. R. (1998). Influence of terrorism risk on foreign tourism decisions. *Annals of Tourism Research*, *25*(1), 112–144. https://doi.org/10.1016/s0160-7383(97)00072-8

Supani, I. D., & Abd Hamid, Z. (2020). Risk perception towards international travellers' destination choice: A case of Sabah. *Journal of Tourism, Hospitality & Culinary Arts*, *12*(1), 1–13.

Tavitiyaman, P., & Qu, H. (2013). Destination Image and Behavior Intention of Travelers to Thailand: The Moderating Effect of Perceived Risk. *Journal of Travel and Tourism Marketing*, *30*(3), 169–185. Link

Teeroovengadum, V., Seetanah, B., Bindah, E., Pooloo, A., & Veerasawmy, I. (2021). Minimising perceived travel risk in the aftermath of the Covid-19 pandemic to boost travel and tourism. *Tourism Review*, *76*(4), 910–928. Link

Tiwari, A. K., Das, D., & Dutta, A. (2019). Geopolitical risk, economic policy uncertainty and tourist arrivals: Evidence from a developing country. *Tourism Management*, *75*(May), 323–327. Link

Tosun, C., Dedeoğlu, B. B., & Fyall, A. (2015). Destination service quality, affective image and revisit intention: The moderating role of past experience. *Journal of Destination Marketing and Management*, *4*(4), 222–234. Link

Tse, D. K., & Wilton, P. C. (1988). Models of Consumer Satisfaction Formation: An Extension. *Journal of Marketing Research*, *25*(2), 204. Link

Turkmendag, T., & Uygur, S. (2020). An Investigation of the Effect of Perceived Risk on Repurchase Intention in Online Vacation Purchases. *Tourism Academic Journal*, *7*(2), 255–266.

Demirel, E., & Ciftci, G. (2020). A systematic literature review of the theory of planned behavior in tourism, leisure and hospitality management research. *Journal of Hospitality and Tourism Management*, *43*(April), 209–219. Link

Ünal, A. (2020). Yerli Turistlerin Algıladıkları Seyahat Risklerinin Destinasyo n Satın Alma Süreçlerine Etkilerinin Belirlenmesine Yönelik Bir Araştırma. *Iğdır Üniversitesi Sosyal Bilimler Dergis*, (24), 403–424.

Vada, S., Prentice, C., Scott, N., & Hsiao, A. (2020). Positive psychology and tourist well-being: A systematic literature review. *Tourism Management Perspectives*, *33*, 100631. Link

Wen, J., Kozak, M., Yang, S., & Liu, F. (2021). Covid-19: potential effects on Chinese citizens' lifestyle and travel. *Tourism Review*, *76*(1), 74–87. Link

Wolff, K., Larsen, S., & Øgaard, T. (2019). How to define and measure risk perceptions. *Annals of Tourism Research*, *79*. Link

Xie, C., Zhang, J., & Morrison, A. M. (2021). Developing a Scale to Measure Tourist Perceived Safety. *Journal of Travel Research*, *60*(6), 1232–1251. *Link*

Yamane, T. (2006). Elementary Sampling Theory. New Jersey, United States: Prentice Hall.

Yang, C. L., & Nair, V. (2014). Risk Perception Study in Tourism: Are we Really Measuring Perceived Risk? *Procedia - Social and Behavioral Sciences*, *144*(2006), 322–327. *Link*

Yazid, A. S., Yusof, M. Y. M., Rashid, N., Ghazali, P. L., Salleh, F., Mahmod, M. S., & Mahmood, S. (2018). A Mediating Effect of Risk Perception on Factors Influencing Tourist Intention to Travel: A Conceptual Framework. *International Journal of Academic Research in Business and Social Sciences*, *8*(11), 1246–1255. *Link*

Zhan, L., Zeng, X., Morrison, A. M., Liang, H., & Coca-Stefaniak, J. A. (2020). A risk perception scale for travel to a crisis epicentre: visiting Wuhan after Covid-19. *Current Issues in Tourism*. *Link*

Jomat

Journal of multidisciplinary academic tourism

2022, 7 (1): 81-96

https://doi.org/10.31822/jomat.2022-7-1-81

ISSN: 2645-9078

INFO PAGE

Determining destination risk perceptions, their effects on satisfaction, revisit and recommendation intentions: Evidence from Sanliurfa/Turkey

Abstract

Visitors' risk perception plays a vital role in their destination choice, intention to return, satisfaction and recommendations to others. At the same time, perceived risks affect destination image, which in turn causes increased or decreased demand for attractions of destinations. The aim of this study is to determine risk dimensions and their effects on recommendation and revisit intentions. Scale is most widely used in tourism research. This scale consists of six dimensions, namely, physical, time, social, performance, financial, and psychological risks, which consist of 28 items. A total of 471 respondents were collected via convenience sampling method among domestic tourists who visited Sanliurfa from May to June 2021. The results of the study indicated a weak inverse and significant relationship between the performance, social, physical, psychological, financial, and time risk perception of the participants and general satisfaction levels. Meanwhile, there is a moderately strong, inverse and significant relationship between all dimensions of risk perception among the participants and their recommendation and revisit intention. Thus, perceptions of risk dimensions have a strong negative influence on overall satisfaction, recommendation, and revisit intentions. By employing three regression models, the present study reported that time and psychological risks highly affect all dependent variables. Furthermore, overall satisfaction is significantly affected by the physical and performance dimensions. Recommendation intention is affected by the financial dimension beyond the aforementioned dimensions. The overall satisfaction levels of the participants were highly correlated with their recommendation levels and revisit intention. At the same time, their recommendation intention was highly correlated with their level of revisit intention. It might be said that visitors may change their future behaviors according to travel risk perceptions. Finally, the study revealed that understanding of customers risk perception is essential to all tourism and hospitality stakeholders.

Keywords: *Destination, recommendation intention, revisit intention, risk perception, satisfaction, Sanliurfa, tourists*

Authors

Full Name	Author contribution roles	Contribution rate
Ali Rıza Mancı:	*Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Writing - Original Draft, Writing - Review & Editing,*	*100%*

Author statement: *Author(s) declare(s) that All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.* ***Declaration of Conflicting Interests:*** *The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article*

Ethics Committee Satatement: Ethics committee report is available for this research and it has been documented to the journal.

Ethics committee: *Harran University Rectorate*
Social and Human Sciences Ethics Committee

Date of ethics committee decision: *20.05.2021*

Ethics committee decision number: *31966*

Jomat

Journal of multidisciplinary academic tourism
202x, 7 (1): 97-108
www.jomat.org

ISSN: 2645-9078

Perceptions about the applicability of robot technology in the tourism industry

Burçin Cevdet Çetinsöz, Seden Doğan, Alper Duran*

ABSTRACT

In the research, it is aimed to determine the applicability of robot technology and the importance of technological innovations in the tourism industry. The population of the research consists of academicians, managers and students in the tourism industry. In the research, the "convenience sampling" method was used, in which everyone who participated in the research could be included in the sample. All statements regarding the applicability of robot technology in the tourism industry and the importance of technological innovations in the tourism industry have been adapted from the relevant literature. The Cronbach Alpha test was applied for the reliability of the scale, along with the frequency distributions, percentiles, mean values, standard deviations and correlation coefficients from the descriptive statistics of the obtained data. In the research findings, it is accepted that airports, housekeeping activities, tour operator and travel agency services and hotel receptions are the most applicable areas of robot technology in the tourism industry.

Keywords:
Tourism industry,
Robot technology,
Turkey

Article History:
Submitted: 06.09.2021
Accepted: 20.02.2022

Doi: https://doi.org/10.31822/jomat.2022-7-1-97

1. Introduction

Robots can be defined as *"mechanical objects developed to facilitate daily tasks and help people'*(Vatan & Doğan, 2021). There are numerous robots with varying characteristics that can be classified into two categories: stationary and mobile. Stationary robots are immobile and unable to move (Doğan & Vatan, 2019). Nowadays robotic applications are frequently being used in various activity areas such as the manufacturing industry (Attaran, 2007), house cleaning (Vaussard et al., 2014), medicine (Schommer et al., 2017), tourism (Papathanassis, 2017; Murphy, Hofacker, & Gretzel, 2017), agriculture (Driessen & Heutinck, 2015), the defense industry (Szegedi, et al., 2017) and elderly care (Glende et al., 2015; Beusher, et al., 2017). Service robots are currently perceived as technological products manufactured only by companies and sold to final customers (Ivanov & Webster, 2017). They are programmed to provide information and help people (Vatan & Dogan, 2021). Although as a concept, robots were first introduced by Karel Čapek in 1921. The term robot is derived from the Czech word *robota*. In 1921, the Czech author Karel Capek used the term in Rossum's Universal Robots. They started to be produced industrially for the first time in 1956 (Ivanov & Webster, 2019a).

With the Henn na Hotel which was the first hotel to work with robots in 2015, the tourism and travel industry has witnessed very rapid and important developments in artificial intelligence, robot technologies and service automation in recent years (Collins, Cobanoglu, Bilgihan, & Berezina, 2017; Ivanov, Webster, & Berezina, 2017; Murphy et al., 2017; Kayıkçı & Bozkurt, 2018; Ivanov & Webster, 2019a; Ivanov & Webster, 2020) to reduce costs, create memorable experiences, differentiate from competitors, establish and maintain a competitive advantage, and improve quality (Seyitoğlu & Ivanov, 2020). When we look at the examples of robotic applications in the fields of hospitality and tourism, Starwood's Aloft Hotel has commissioned a robotic butler, Boltr, to assist hotel guests, robotic arms have been manufactured for the

**Corresponding Author* | *Research paper*

Burçin Cevdet Çetinsöz: *Prof. Dr., Alanya Alaaddin Keykubat University, Alanya, Turkey, Email: burcin.cetinsoz@alanya.edu.tr, Orcid Id: 0000-0003-1703-8067*

Seden Doğan : *Assoc. Prof., Samsun Ondokuz Mayıs University, Samsun, Turkey, Email: seden.dogan@omu.edu.tr, Orcid Id: 0000-0001-8547-7702*

Alper Duran: *Dr., Mersin University, Mersin, Turkey, Email: aduran@mersin.edu.tr, Orcid Id: 0000-0003-0420-03*

cruise industry to bartender at the Royal Caribbean's Bionic Bar, and Singapore has tested SARA, a robotic virtual agent to provide information and support to tourists in various subjects (Tung & Law, 2017).

In the early days of robotic technology, people (customers, managers, employees or the public) would either accept or resist robots which could vary from person to person (Ivanov et al., 2018b). The attitudes and perceptions of tourists (Ivanov & Webster, 2019a), young adults (Ivanov, Webster, & Garenko, 2018a) and tourism students (Tuominen & Ascenção, 2016) regarding the applicability of robot technology, which has been used in many areas of the tourism and travel industry have been investigated in literature. However, there is no comparable study on how industry representatives such as managers, academics and students evaluate or perceive the applicability of robot technology. The aim of this study is to determine the applicability of robot technology and the importance of technological innovations in the tourism industry.

Therefore, in line with this determined purpose, the current study was conducted to determine the opinions of managers, academicians and students, who are the main practitioners of the tourism industry, on the applicability of robot technology.

2. Literature Review

According to International Federation of Robotics, robots are defined as *"automatically controlled, reprogrammable, multipurpose manipulator, programmable in three or more axes, which can be either fixed in place or mobile for use in industrial automation applications"* (IFR, 2016).

According to Papathanassis (2017), the rationale for robot adoption is based on productivity, accessibility, and service enhancement. Industrial robots initially assist in the manufacturing process and increase productivity (Arai, Kato, & Fujita, 2010). When technology limitations can be overcome, the times for the extensive use of service robots are determined in any part of the hotel environment (Chin et al., 2014; Zalama et al., 2014). These types of limitations are related to the robotic control system's overall integration technology and standards (Chin et al., 2014; Zalama et al., 2014). The standardization might reduce robotics deployment costs while ensuring low liability, safety, and high development quality (Haidegger et al., 2013). Hotels might prefer to hire humanlike robot to have advantage in competition, as researchers have concluded that humanoid robots are better suited to jobs that require social interaction (Goetz, Kiesler, & Powers, 2003). The appearance and behavior of robots must also be balanced to ensure the acceptance (Mara & Appel, 2015). However, while robots' use appears to co-create positive service experiences with customers, the risks of service experiences being co-destructed must be accepted (Čaić, Odekerken-Schröder, & Mahr, 2018). Furthermore, because robotic technology in tourism and hospitality is still novel and limited (Papathanassis, 2017), it is critical to investigate potential customers' perspectives.

Hoteliers worldwide are now actively investigating how service robots can help their businesses to compete in highly competitive marketplace (Pinillos et al., 2016). We see an increasing number of service robots in tourism and hospitality operations (Ivanov, Webster, & Berezina, 2017). Hotels, restaurants, travel agencies, and theme parks, to name a few, have all adopted robots in the tourism and hospitality industries (Ivanov et al., 2017). These robots perform social and practical tasks such as serving customers and providing information and assistance to customers (Tung & Law, 2017). They can work as cooking chefs, room servers, room attendants, bellboy, waiters, bartenders, receptionists, and concierge staff (Seyitoğlu & Ivanov, 2021). Service robots are able to interact with the customers (Pinillos et al., 2016). Although other technologies like contactless payment, self-service kiosks, and touch screen panels can perform the same functional tasks as service robots, service robots can provide frontline services where interaction is an essential part of the customers' experiences (Lu et al., 2019). When service robots work as frontline employees, they are in charge of providing human-like services and interactions while also improving customer experiences in real-time (Kuo et al., 2017).

With a total of 186 robot workers, Henn-na Hotel is the first hotel where robots are employed. The front office has a humanoid robot as a receptionist (Henn-na Hotel, 2021). Three multi-lingual robots (one that is a dinosaur) welcome their guests, taking note of their names, various requests, and issues. In the luggage storage, a mechanism that incorporates robotic arms does the job (Papathanassis, 2017; Jarvis, 2016; Osawa et al., 2017: 219; Pierce, 2015). IBM's robot Connie operates at Hilton McLean Tysons Corner, Connie, named after the founder of the Hilton Hotel, is 60 cm tall in McLean, Virginia. Connie provides information about the hotel and its surroundings (Ivanov, Webster, & Berezina, 2017; Trejos, 2016; Gagliordi, 2016). The Aloft Hotel in Cupertino, California has an automatic robot who handles tasks such as taking sheets, soap, towels, and linens to the room, and picks up dirty laundry. It is wearing an outfit and appears to have a name tag (Ivanov, et al., 2017; Trejos, 2014). The InterContinental Hotel Group employed a robot named Dash at the Crown Plaza San Jose in San Jose, California, in 2015. The Aloft has hired the butler Boltr to provide hospitality services. The Royal Caribbean has a team of robot bartenders (Kayıkçı & Bozkurt, 2018). Yotel transports 300 pieces of luggage a day with the ABB 6640 industrial robot which they call Yobot and help to facilitates fast and simple check-in (Social Tables, 2021). The Hotel EMC2 has two robots: Cleo and Leo. These two robots have approximately three feet in height and can be recharged. They deliver any forgotten items as well as bringing extra towels or food and other requested items to the rooms (Social Tables, 2021). On the other hand, Porter robots can handle complex transactions. They receive data from various sensors and other sources; they can learn from previous transactions and improve themselves over time (Pagallo, 2013; Buhalis et al., 2019). A burger robot named Flippy is able to perform up to 120 orders per hour. Cafe X employed robots baristas and they can prepare three beverages in 40 seconds (Tuomi, Tussyadiah, & Steinmetz, 2021). Briefly, it can be said that the robots might replace humans to perform dirty, dull, and dangerous (3D) tasks in a hospitality workplace (Ivanov, Seyitoğlu, & Markova, 2020) but not perform complex task like providing VIP service or dealing with complaints (Seyitoğlu & Ivanov, 2020).

The use of these robots in industries that require a lot of human interaction, such as hotels, restaurants, cruises, travel agencies, museums, and airports, is becoming more popular (Anandan, 2019). However, there are limited number academic studies on human-robot interaction in the hospitality industry (Chan & Tung, 2019; Kervenoael, Hasan, Schwob, & Goh, 2020). Consumer perceptions of robots in a service setting have been the focus of previous research in this area (Ho et al., 2020; Ivanov & Webster, 2019a; Ivanov & Webster, 2019b; Ivanov et al., 2018a; Ivanov et al., 2018b; Pinillos et al., 2016; Rodriguez-Lizundia et al., 2015; Tung & Au, 2018; Tussyadiah & Park, 2018; Tussyadiah et al., 2020). In a survey of 1003 people conducted by Ivanov and Webster (2019a), the participants agreed that service robots could work at the information desk and reservation office, as well as as a cleaner and cashier. In a survey of 260 Russian participants conducted in 2018a, Ivanov, Webster, and Garenko discovered that the participants believe robots can assist with baggage handling, towel/bed linen delivery, information submission, and payment processes. As seen and as Wirtz et al. (2018) expressed, existing literature on the proper workplace of robots in a hospitality establishment is still very limited.

Aims of Research

In the research, it is aimed to determine the applicability of robot technology and the importance of technological innovations in the tourism industry. Within the framework of the data obtained from the relevant literature, the research questions are as follows;

Research Question 1: In the research, the applicability of robot technology in the sub-sectors of the tourism industry was investigated.

Research Question 2: In the research, it was investigated whether technological innovations are important in the tourism industry.

3. Method

The population of the study consists of academicians, managers and students in the tourism industry. The research data was collected from tourism students, academicians and managers who participated in the Mersin University Faculty of Tourism Career Days and the IVth International Eastern Mediterranean Tourism Symposium held in 2019. A total of 1638 people attended the International Eastern Mediterranean Tourism Symposium. The "convenience sampling" method in which everyone participating in the study could be included in the sample was used (Altunışık, et al., 2005: 132). Sekaran (1992) and Altunışık et al. (2005:127) stated that a sample of 313 people could represent a population of 1638 people.

In this context, taking into account missing, erroneous and non-returned questionnaires, an application was carried out on 350 people and a total of 293 questionnaires were evaluated to be used for data collection.

The questionnaire, which was the data collection tool of the study, consisted of three parts. The first part included the individual characteristics of the participants (gender, age, education, occupation and tourism experience) while the second part was divided into 6 sub-sectors of the tourism industry (hotel businesses, travel agencies and tourism information centers, events, car rental, transportation services and airports and other transportation) totaling 51 items for expressing opinions on the usability of robot technology.

In the second part, all statements regarding the usability of robot technology in the tourism industry were adapted from the studies of Ivanov, Webster and Garenko (2018a), while in the third part, 6 items on the importance of technological innovations in the tourism industry were adapted from the studies of Kazandjieva and Filipova (2018). In the research scale, the participation levels of the expressions regarding the use of robot technology in the sectors of the tourism industry are "StronglyDisagree=1…..StronglyAgree=5" and the participation levels of the expressions regarding the importance of technological innovations in the tourism industry are rated according to the 5 point Likert scale as "very unimportant=1…..very important=5".

Data Analysis Methods

The Cronbach Alpha test was applied to determine the reliability of the scale for the data obtained from the research results, in addition to the descriptive statistics of frequency distributions, percent rates, mean values, standard deviations and correlation coefficients.

The level of each item was calculated using the Bazazo, Elyas, Awawdeh, Faroun and Qawasmeh formulas (2017). (The highest score on the Likert scale - the lowest score on the Likert scale)/number of levels used = 5–1 / 5 = 0.80, hence 1–1.80 was "very low", 1.81–2.60 was "low" , 2.61–3.40 was "moderate", 3.41–4.20 was "high" and 4.21–5.00 was reflected as "very high". The SPSS 23.0 for Windows program was used in all analyzes used in the study.

Reliability

Cronbach's Alpha coefficients were calculated to test the reliability of the items in the study in terms of internal consistency. The Cronbach Alpha reliability analysis is an internal consistency analysis suitable for use in Likert type scales (Ercan & Kan, 2004:213) and it determines whether the statements in the measurement tool are consistent with each other. The reliability coefficient manifests values between 0 and 1, and the reliability increases as these values get closer to 1 (Ural & Kılıç, 2006). Cronbach's Alpha coefficient for "the participants' perceptions of the applicability of robot technology in hotel businesses" was determined as 0.94, the coefficient for "the participants' perceptions of the applicability of robot technology in travel agencies and tourism information centers" was 0.88, the coefficient for "the coefficient of participants' perceptions of the applicability of robot technology in events" was 0.85, the coefficient for "the participants' perceptions of the applicability of robot technology in car rental services" was 0.85, the coefficient for "the participants' perceptions of the applicability of robot technology in airlines/bus/train transportation" was 0.91, while the Cronbach's Alpha coefficient for "participants' perceptions of the applicability of robot technology at airports and other transportation stations" was 0.94, and the Cronbach's Alpha coefficient for "the importance of technology-related innovations in the tourism industry" scale was determined as 0.81.

4. Findings

The study sample consisted of 293 people. 56.7% of the participants in the study were men and 68% were between the ages of 18-30. 74.4% of the participants had a bachelor's degree and 19.5% had postgraduate education.

Table 1. Demographic and Professional Characteristics of the Participants

Gender	N	%
Male	166	56.7
Female	127	43.3
Age		
18-30 Age	199	68.0
31-40 Age	69	23.5
Age 41 and above	25	8.5
Occupation		
Manager in tourism business	85	29.0
Tourism academician	35	11.9
Tourism student	173	59.0
Education Level		
High school or less	8	2.7
2 year/associate degree	10	3.4
Bachelor	218	74.4
Postgraduate	57	19.5
Your Tourism Experience (Average number of hotel stays per year?)		
0	114	45.6
1-3 times	40	16.0
4-6 times	34	13.6
7 and above	62	24.8
Total	293	100

Source: *It was created by the authors*

Table 2. Perceptions of Participants on the Applicability of Robotic Technology in Hotel Businesses

Dimensions / Items	Mean	S.D.	Level	Cro. Alpha	Item-Total Corrl.
Applicability of Technology in Hotel Businesses in General	***3.11***	***1.38***	***M***	***0.94***	-
Reception	***3.26***	***1.40***	***M***	***0.86***	***1.000***
Check In Services	3.39	1.39	M		0.921
Check out Services	3.36	1.37	M		0.913
Guiding and escorting to the room	3.04	1.44	M		0.824
Housekeeping	***3.53***	***1.23***	***H***	***0.92***	***1.000***
Ironing services	3.66	1.17	H		0.861
Taking laundry orders (such as towels, sheets and ironing service)	3.58	1.25	H		0.914
In laundry services	3.56	1.20	H		0.910
Delivery of laundry orders (such as towels, sheets and ironing service)	3.51	1.24	H		0.842
In room cleaning	3.34	1.32	M		0.834
Restaurant	***3.06***	***1.36***	***M***	***0.93***	***1.000***
Cleaning the tables	3.45	1.30	H		0.653
Taking orders for room service	3.41	1.32	H		0.706
Providing information to the guests about the menu	3.22	1.36	M		0.767
Delivery of food and drinks in room service	3.11	1.35	M		0.826
Taking orders at the restaurant	3.11	1.37	M		0.850
Making/preparing drinks (coffee, tea, cocktail) in restaurant or bar	2.90	1.38	M		0.833
Serving/presenting drinks in a restaurant or bar	2.87	1.41	M		0.860
Escorting/guiding the guest to the table in the restaurant	2.85	1.34	M		0.833
Serving/presenting the food in the restaurant	2.84	1.43	M		0.874
Cooking/preparation	2.75	1.36	M		0.778
Additional Services	***2.61***	***1.55***	***M***	***0.83***	***1.000***
Giving very short (1-2 hours) training seminars to guests (Painting, landscape, gastronomy, etc. over)	2.85	1.36	M		0.642
Entertaining guests	2.83	1.33	M		0.780
Massage services	2.62	2.79	M		0.674
Dancing with the guests	2.59	1.38	L		0.838
Playing games with guests	2.55	1.36	L		0.769
Hairdressing services	2.45	1.31	L		0.762
Babysitting	2.35	1.35	L		0.818

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
Source: *It was created by the authors*

The study had three different target audiences. 29.0% were tourism business managers, 11.9% were tourism academicians and 59.0% were tourism students. 54.4% of the respondents had at least one hotel accommodation experience.

The participants were asked questions about the applicability of robot technology in an accommodation business. When evaluated on a departmental basis, the participants stated that robot technology could be used mostly in the housekeeping department ($\bar{x}$: 3.53) and at the reception ($\bar{x}$: 3.26). They indicated that robot technology could be used in housekeeping, namely "ironing services" ($\bar{x}$:3.66) and "laundry orders" ($\bar{x}$:3.58) and "laundry services" ($\bar{x}$:3.56). In the food and beverage department robot technology could be used for “cleaning tables” ($\bar{x}$: 3.45) and “room service ordering” ($\bar{x}$: 3.41), in reception for “check-in” ($\bar{x}$:3.39) and “check-out” ($\bar{x}$: 3.36) services. Participants did not think that robots could be used for additional services ($\bar{x}$:2.61) within the hotel.

Table 3. Perceptions of Tourism Managers, Academicians and Students towards the Applicability of Robotic Technology in Hotel Businesses

Categories / Profession Groups	N	Mean	S.D.	Level
Reception	***293***	***3.19***	***1.24***	***M***
Tourism Students	173	3.47	1.11	H
Tourism Academicians	35	3.25	1.19	M
Tourism Managers	85	2.85	1.40	M
Housekeeping	***293***	***3.53***	***1.08***	***H***
Tourism Academicians	36	3.80	0.95	H
Tourism Students	173	3.66	0.98	H
Tourism Managers	85	3.15	1.23	M
Restaurant	***293***	***3.00***	***1.06***	***M***
Tourism Students	173	3.24	1.02	M
Tourism Academicians	36	3.11	1.02	M
Tourism Managers	85	2.65	1.16	M
Additional services	***293***	***2.50***	***1.07***	***L***
Tourism Students	173	2.80	1.18	M
Tourism Academicians	36	2.44	0.92	L
Tourism Managers	85	2.28	1.13	L

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
Source: *It was created by the authors*

Table 4. Perceptions of Participants on the Applicability of Robotic Technology in Travel Agencies and Tourism Information Centers

Dimentions / Items	Mean	S.D.	S.L.	Cro. Alpha	Item-Total Corrl.
Travel Agencies / Tourism Information Center	***3.23***	***1.36***	***M***	***0.88***	***1.000***
Providing information regarding the questions of the guests (in the office)	3.34	1.29	M		0.835
Guiding museums and ruins	3.20	1.41	M		0.924
Guiding city tours (City Sightseeing Tours)	3.13	1.38	M		0.941

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
Source: *It was created by the authors*

In Table 3, the evaluations of the participants have been classified according to their occupational groups. Tourism academics ($\bar{x}$:3.80) and students ($\bar{x}$:3.66) stated that robot technology could be used mostly in housekeeping, while tourism students thought that robots could be benefited from in reception ($\bar{x}$:3.47) and the food and beverage department ($\bar{x}$:3.24).

The usability of robot technology in travel agencies / tourism information centers is asked in Table 4. Participants stated that robots could provide "information in the office" ($\bar{x}$:3.23), "guidance for museums and archeological sites" ($\bar{x}$:3.20) and city tours ($\bar{x}$:3.13).

Table 5. Perceptions of Tourism Managers, Academicians and Students towards the Applicability of Robotics in Travel Agencies and Tourism Information Centers

Categories / Profession Groups	N	Mean	S.D.	Level
Travel Agencies / Tourism Information Center	***293***	***3.35***	***1.23***	***M***
Tourism Students	173	3.47	1.19	H
Tourism Managers	85	3.34	1.22	M
Tourism Academicians	35	3.25	1.30	M

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
Source: *It was created by the authors*

Table 5 displays the evaluations of the participants according to occupational groups which reveals that tourism students ($\bar{x}$:3.47), tourism managers ($\bar{x}$:3.34) and tourism academicians ($\bar{x}$:3.25) stated that robot technology could be used in travel agencies / tourism information centers.

Table 6. Perceptions of Participants on the Applicability of Robotic Technology in Events

Dimentions / Items	Mean	S.D.	S.L.	Cro. Alpha	Item-Total Corrl.
Events	***3.17***	***1.31***	***M***	***0.85***	***1.000***
Providing information about the event program	3.57	1.20	H		0.704
Guiding guests to their seats	3.21	1.33	M		0.872
Providing show and entertainment services to guests	3.00	1.36	M		0.875
Serving food and beverage during the event	2.91	1.36	M		0.873

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
Source: *It was created by the authors*

The participants are asked questions about the use of robot technology in tourism activities in Table 6. The participants stated that robot technology could be used mostly in services such as "informing about event programs" ($\bar{x}$: 3.57) and "guiding to seats" ($\bar{x}$:3.21).

Table 7. Perceptions of Tourism Managers, Academicians and Students towards the Applicability of Robotic Technology in Events

Categories / Profession Groups	N	Mean	S.D.	Level
Events	***293***	***3.15***	***1.05***	***M***
Tourism Students	173	3.30	1.09	M
Tourism Academicians	35	3.30	0.98	M
Tourism Managers	85	2.86	1.09	M

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
Source: *It was created by the authors*

In Table 7, tourism students ($\bar{x}$:3.30) and academicians ($\bar{x}$:3.30) state that robots could be used in tourism activities, while tourism managers ($\bar{x}$:2.86) do not this feasible.

Table 8. Perceptions of Participants on the Applicability of Robotic Technology in Car Rental Services

Dimentions / Items	Mean	S.D.	S.L.	Cro. Alpha	Item-Total Corrl.
Car Rental Services	***3.21***	***1.35***	***M***	***0.85***	***1.000***
In the cleaning of vehicles	3.54	1.28	H		0.740
Automatically going to the charging/petrol station when the gas tank or electricity charge limit falls below a certain limit	3.46	1.35	H		0.822
Unlocking and using the vehicle automatically with the reservation code received	3.33	1.35	M		0.862
In turnkey delivery service of vehicles with robotic vehicles	3.11	1.40	M		0.798
To drive a vehicle	2.59	1.41	M		0.765

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
Source: *It was created by the authors*

The evaluation of robot technology in car rental services is studied in Table 8. While the participants stated that robots could be used in car rental operations in general ($\bar{x}$:3.21), they stated that robots could not be used for chauffeuring services ($\bar{x}$:2.59).

Table 9. Perceptions of Tourism Managers, Academicians and Students towards the Applicability of Robotic Technology in Car Rental Services

Categories/ Profession Groups	N	M.	S.D.	Level
Car Rental Services	***293***	***3.22***	***1.04***	***M***
Tourism Academicians	35	3.45	0.88	H
Tourism Students	173	3.31	1.08	M
Tourism Managers	85	2.91	1.16	M

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
***Source:** It was created by the authors*

In Table 9, tourism academicians ($\bar{x}$:3.45) and students ($\bar{x}$:3.31) stated that robots could be used in car rental services, while tourism managers approached robot technology in this subject negatively.

Table 10. Perceptions of Participants on the Applicability of Robotic Technology in Airline/Bus/Train Transport

Dimentions / Items	M	S.D.	S.L.	Cro. Alpha	Item-Total Corrl.
Airlines/Bus/Train Transportation	***3.08***	***1.38***	***M***	***0.91***	***1.000***
Cleaning services of transportation vehicle	3.59	1.28	H		0.632
Providing information about the tour/flight/road route	3.58	1.29	H		0.746
Providing information about the vehicle of transport	3.55	1.28	H		0.747
Providing information on travel, safety and security procedures	3.53	1.30	H		0.746
Check-In Services (like airports)	3.38	1.43	M		0.750
Serving food and beverage during the travel	3.06	1.40	M		0.664
Guiding to the passenger seat	3.00	1.43	M		0.680
Use of trains by robots	2.69	1.49	M		0.795
Use of marine vehicles by robots (like Ships, Cruisers)	2.55	1.44	L		0.777
Use of buses by robots	2.51	1.44	L		0.777
Use of airplanes by robots	2.50	1.42	L		0.719

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
***Source:** It was created by the authors*

In Table 10, the participants stated that robot technology could generally be used in transportation services in tourism ($\bar{x}$:3.08). The participants indicated that robot technology could be used the most in subjects such as “cleaning” ($\bar{x}$:3.59), “information about road routes” ($\bar{x}$:3.58), “information about the means of transportation” ($\bar{x}$:3.55) and “traveling, safety and security procedures”. They stated that robot technology can be used in the subjects of “providing information” ($\bar{x}$: 3.53). The participants reacted negatively to the use of transportation vehicles by robots.

Table 11. Perceptions of Tourism Managers, Academicians and Students towards the Applicability of Robotic Technology in Airline/Bus/Train Transportation

Categories/ Profession Groups	N	Mean	S.D.	Level
Airlines/Bus/Train Transportation	*293*	*3.08*	*0.99*	*M*
Tourism Academicians	35	3.27	0.89	M
Tourism Students	173	3.17	0.96	M
Tourism Managers	85	2.83	1.12	M

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
***Source:** It was created by the authors*

In Table 11, tourism academicians ($\bar{x}$:3.27) and students ($\bar{x}$:3.17) stated that robot technology could be used in transportation services, while tourism managers ($\bar{x}$:2.83) did not agree.

Table 12. Participants' Perceptions of the Applicability of Robot Technology at Airports and Other Transportation Stations

Dimentions / Items	Mean	S.D.	Cro. Alph.	Item-Total Corrl.	Level
Airports & Other Transport Stations	***3.82***	***1.18***	***0.94***	***1.000***	***H***
Providing information about ticket prices	3.89	1.13		0.931	H
Provide information on available passenger seats for sale	3.84	1.17		0.946	H
Providing information about the arrival and departure of transport vehicles	3.79	1.19		0.921	H
Providing information on special legal regulations and visa formalities on travels	3.76	1.23		0.899	H

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
***Source:** It was created by the authors*

In Table 12, participants indicated that robot technology could be benefited from to show “ticket prices” ($\bar{x}$:3.89), “saleable available passenger seats” ($\bar{x}$:3.84), “arrival and departure times of transportation vehicles” ($\bar{x}$: 3.79) and provide information about “legal regulations and visa formalities” ($\bar{x}$:3.76).

Table 13. Tourism Managers, Academicians and Students' Perceptions of the Applicability of Robot Technology in Airports and Other Transportation Stations

Category / Profession Groups	N	Mean	S.D.	Level
Airlines/Bus/Train Transport	***293***	***3.89***	***0.99***	***H***
Tourism Academicians	35	4.20	0.69	H
Tourism Students	173	3.83	1.07	H
Tourism Managers	85	3.64	1.22	H

Order Scale: 1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
***Source:** It was created by the authors*

In Table 13, tourism academicians ($\bar{x}$:4.20), students ($\bar{x}$:3.83) and tourism managers ($\bar{x}$:3.64) expressed a high level of positivity about using robot technology in airports and other transportation stations in general.

Table 14. The Importance of Technology-Related Innovations in the Tourism Industry

Items	Mean	S.D.	Cro. Alpha	Item-Total Corrl.	Level
Tourism Industry	***4.12***	***0.92***	***0.81***	***1.000***	***H***
Transportation Sector	4.37	0.84		0.589	VH
Accomodation Sector	4.27	0.79		0.771	VH
Tour Operator and Travel Agency Sector	4.24	0.81		0.724	VH
Tour Guiding Sector	4.00	0.97		0.777	H
Food & Beverage Sector	3.96	1.00		0.757	H
Animation and Entertainment Services Sector	3.91	1.15		0.715	H

Order Scale:1–1.80 very low;1.81–2.60 low;2.61–3.40 moderate; 3.41–4.20 high;4.21–5 very high.
Source: It was created by the authors

Finally, in Table 14, the participants were asked about the importance of using technology in the sub-sectors of the tourism industry. In general, participants ($\bar{x}$:4,12) stated that the use of technological innovations is important in all sub-sectors.

5. Conclusion and Recommendations

The aim of the study was to determine the applicability of robot technology and the importance of technological innovations in the tourism industry. Therefore, questions were asked to this end in the study to determine the applicability of robot technology in the sub-sectors of the tourism industry and the importance of technological innovations in the tourism industry. The findings of the study also reveal the attitudes and perceptions of managers, academicians and students, who are the main dynamics of the tourism industry, towards artificial intelligence and robot applications.

In the future, the effectiveness of artificial intelligence applications and robot technologies will increase, they will penetrate many areas, they will appear often in our living spaces and in the business world and they will become a part of our daily and business life (Atsız, 2021; Kayıkçı & Bozkurt, 2018). The results of the study indicate that technological innovations in the tourism industry are very important especially in the transportation, accommodation and tour operator and travel agency sectors. In their study on consumers' perceptions of technological innovations in tourism, Kazandjieva and Filipova (2018) stated that the majority of consumers considered technological innovations most important in the transportation sector in the tourism and travel industry. Ever since the 1950s, developments in transportation technology in the world have shortened distances and created more comfortable and cost-effective transportation models (Baykal, 2015). In addition, another finding of Kazandjieva and Filipova (2018) emphasizes the importance of technological innovations in the tour operators and travel agencies sector, and this is commensurate with the results of the current study. Kayıkçı and Bozkurt (2018) assert that robots, artificial intelligence and automation in travel, tourism and accommodation areas will cause great changes in the sector. Airports, housekeeping activities, tour operator and travel agency services, and hotel receptions are considered to be the most suitable areas for robot applications in tourism. In their study, Ivanova and Webster (2019ab) stated that robots can be utilized in service areas in the travel and tourism industry such as providing information, housekeeping activities and processing reservations, payments and documents. This shows that compared to humans, robots can make fewer errors in the specified service areas.

The findings of the current study show the application areas that the tourism industry perceives as the most suitable for robotization from a managerial perspective. In fact, these application areas are those that can be accepted most quickly and easily by the tourism industry. Robot technology can be implemented rapidly in these acceptable service areas of the tourism industry. Advances in robotics and artificial intelligence, the increasing capabilities of robots, and decreasing purchase and maintenance costs will make robots an alternative to human labor in the tourism industry (Ivanov, Webster, & Berezina, 2017). Robots can provide functional speed and convenience for businesses, provide significant savings in costs and reduce human-induced errors to zero in tourism, which is a labor-intensive industry (Kozak, et al., 2008, p. 40). In the tourism and travel industry, where competition is intense, it is necessary to pursue and apply these developments in robot technology.

Robotic technology has started to take its place rapidly in the tourism and travel industry, and it is therefore recommended that courses covering the usage areas of robots and robotic software / coding is added to the education curricula in tourism education institutions in the coming years. Furthermore, the effects on facility design and financial profitability should be researched by academics and transferred to the industry to establish a suitable working environment for robots. In fact, according to Touretzky (2010), students should be encouraged to watch and participate in robot competitions (such as cocktail competitions). Joint studies can be carried out by cooperating with different disciplines from the field of tourism, such as software and computer engineering. Murphy et al. (2017) suggest that educators should organize debates among students in which areas and why robot technology will be used in their lessons, organize essay competitions, and conduct studies on how robots will affect tourism and travel investments, income, expenses and profits.

References

Altunışık, R., Coşkun, R., Bayraktaroğlu, S., & Yıldırım, E. (2005). *Sosyal bilimlerde araştırma yöntemleri*. İstanbul: Sakarya Kitabevi.

Anandan, T. M. (2019). Human-Robot Interaction: A Team Sport. Accessed at. https://www.automate.org/industry-insights/human-robot-interaction-a-team-sport, (21.07.2021).

Arai, T., Kato, R., & Fujita, M. (2010). Assessment of operator stress induced by robot collaboration in assembly. *CIRP Annals - Manufacturing Technology*, 59, 5-8. https://doi.org/10.1016/j.cirp.2010.03.043

Atsız, O. (2021). Virtual reality technology and physical distancing: A review on limiting human interaction in tourism. *Journal of Multidisciplinary Academic Tourism*, 6 (1), 27-35. DOI: 10.31822/jomat.834448

Attaran, M. (2007). Robotics Applications in Manufacturing. *Journal of Information Systems Management*, 7 (1), 14-21. https://doi.org/10.1080/07399019008968323

Baykal, F. (2015). Uluslararası Turizm Ulaştırmasının Akış Yönü ve Dağılış Dokusu. *Ege Coğrafya Dergisi*, 24 (2), 57-68.

Bazazo, I., Elyas, T., Awawdeh, L., Faroun, M., & Qawasmeh, S. (2017). The impact of Islamic attributes of destination loyalty via the mediating effect of tourist satisfaction. *International Journal of Business Administration*, 8(4), 65–78.

Beusher, L. M., Fan, J., Sarkar, N., Dietrich, M. S., Newhouse, P. A., Miller, K. F., Mion, L. C. (2017). Socially assistive robots: measuring older adults' perceptions. *Journal of Gerontological Nursing*, *43(12),* 35-43. https://doi.org/10.3928/00989134-20170707-04

Buhalis, D., Harwood, T., Bogicevic, V., Viglia, G., Beldona, S., & Hofacker, C. (2019). Technological disruptions in services: Lessons from tourism and hospitality. *Journal of Service Management*, 30(4), 484–506. https://doi.org/10.1108/JOSM-12-2018-0398

Čaić, M., Odekerken-Schröder, G., & Mahr, D. (2018). Service robots: value co-creation and co-destruction in elderly care networks. *Journal of Service Management*, 29 (2),178-205. https://doi.org/10.1108/JOSM-07-2017-0179

Chan, A. P. H., & Tung, V. W. S. (2019). Examining the effects of robotic service on brand experience: the moderating role of hotel segment. *Journal of Travel & Tourism Marketing*, 36 (4), 458-468. https://doi.org/10.1080/10548408.2019.1568953

Chin, Y. H., Lee, H. P., Su, C. W., Li, J. H., Lin, C. H., & Wang, J. F. (2014). A Framework Design for Human-Robot Interaction. In: Huang Y M., Chao H C., Deng D J., Park J. (eds) Advanced Technologies, Embedded and Multimedia for Human-centric Computing. Lecture Notes in Electrical Engineering, vol 260. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-7262-5_118

Collins, G. R., Cobanoglu, C., Bilgihan, A., & Berezina, K. (2017). *Hospitality information technology: Learning how to use it* (8th ed.). *Automation and Robotics in the Hospitality Industry,* Dubuque, IA: Kendall/Hunt Publishing Co.

Doğan, S., & Vatan, A. (2019). Hotel managers' thoughts towards new technologies and service robots at hotels: A qualitative study in Turkey. In C. Cobanoglu, M. Cavusoglu, K. Corbacı (eds), *Advances in Global Business and Economics 2,* 382-300. Anahei Publishing.

Driessen, C., & Heutinck, L. F. M. (2015). Cows desiring to be milked? Milking robots and the co-evolution of ethics and technology on Dutch dairy farms. *Agriculture and Human Values*, 32(1), 3-20.

Ercan, İ., & Kan, İ. (2004). Ölçeklerde güvenirlik ve geçerlik. *Uludağ Üniversitesi Tıp Fakültesi Dergisi*, 30 (3), 211-216.

Gagliordi, N. (2016). This Watson-Powered Robot Concierge is Rethinking the Hotel Industry. Accessed at. https://www.zdnet.com/article/this-watson-powered-robot-concierge-is-rethinking-the-hotel-industry/, (28.07.2021).

Glende, S., Conrad, I., Krezdorn, L., Klemcke, S., & Krätzel, C. (2015). Increasing the acceptance of assistive robots for older people through marketing strategies based on stakeholder needs. *International Journal of Social Robotics*, 8(3), 1-15.

Goetz, J., Kiesler, S., & Powers, A. (2003). Matching robot appearance and behavior to tasks to improve human-robot cooperation. The 12th IEEE International Workshop on Robot and Human Interactive Communication, , Oct. 31 - Nov. 2, 2003. California. USA, 55-60. https://doi.org/10.1109/ROMAN.2003.1251796

Haidegger, T., Barreto, M., Gonçalves, P., Habib, M. K., Ragavan, S. K. V., Li, H., Vaccarellah, A., Perroneh, R., & Prestesi, E. (2013). Applied ontologies and standards for service robots. *Robotics and Autonomous Systems,* 61 (11), 1215–1223. https://doi.org/10.1016/j.robot.2013.05.008.

Henn na Hotel. (2021). Henn na Hotel General Concept. Accessed at. https://www.h-n-h.jp/en/concept, (01.07.2021).

Ho, T. H., Tojib, D., & Tsarenko, Y. (2020). Human staff vs. service robot vs. fellow customer: Does it matter who helps your customer following a service failure incident?. *International Journal of Hospitality Management*, 87, 1-10. https://doi.org/10.1016/j.ijhm.2020.102501

IFR. (2016). Service Robots. http://www.ifr.org/service-robots/

Ivanov, S., & Webster, C. (2017). The robot as a consumer: a research agenda. Paper presented at the "Marketing: experience and perspectives" Conference, 29-30 June 2017, University of Economics-Varna, Bulgaria.

Ivanov, S., & Webster, C. (2019a). Perceived appropriateness and intention to use service robots in tourism. In Pesonen, J. & Neidhardt, J. (Eds.) Information and Communication Technologies in Tourism 2019, Proceedings of the International Conference in Nicosia, Cyprus, 30.01-01.02.2019, 237-248.

Ivanov, S., & Webster, C. (2019b). Economic Fundamentals of the Use of Robots, Artificial Intelligence, and Service Automation in Travel, Tourism, and Hospitality. Ivanov, S. and Webster, C. (Ed.) Robots, Artificial Intelligence, and Service Automation in Travel, Tourism and Hospitality, Emerald Publishing Limited, Bingley, 39-55. https://doi.org/10.1108/978-1-78756-687-320191002

Ivanov, S., & Webster, C. (2020). Robots in tourism: a research agenda for tourism economics. *Tourism Economics (forthcoming)*. https://doi.org/10.1177/1354816619879583

Ivanov, S., Seyitoğlu, F., & Markova, M. (2020). Hotel managers' perceptions towards the use of robots: A mixed-methods approach. *Information Technology & Tourism*, 22 (4), 505-535.

Ivanov, S., Webster, C., & Berezina, K. (2017). Adoption of robots and service automation by tourism and hospitality companies. *Revista Turismo & Desenvolvimento*, 27/28, 1501-1521.

Ivanov, S., Webster, C., & Garenko, A. (2018a). Young Russian adults' attitudes towards the potential use of robots in hotels. *Technology in Society,* 55, 24–32.

Ivanov, S., Webster, C., & Seyyedi, P. (2018b). Consumers' attitudes towards the introduction of robots in accommodation establishments. *Tourism*, 66 (3), 302-317.

Jarvis, H. (2016). Robot-Run Hotel gets Guinness approval. Accessed at. https://standbynordic.com/robot-run-hotel-gets-guinness-approval/ (02.06.2021)

Kayıkçı, M. Y., & Bozkurt, A. K. (2018). Dijital çağda z ve alpha kuşağı, yapay zeka uygulamaları ve turizme yansımaları. *Sosyal Bilimler Metinleri*, 01, 54-64.

Kazandjieva, V. I., & Filipova, H. P. (2018). Customer's perception assessment of tech-related innovations in tourism. *Izvestiya Journal of Varna University of Economics*, 62 (1), 5-20.

Kervenoael, R., Hasan, R., Schwob, A., & Goh, E. (2020). Leveraging human-robot interaction in hospitality services: Incorporating the role of perceived value, empathy, and information sharing into visitors' intentions to use social robots. *Tourism Management,* 78, 1040-1042. https://doi.org/10.1016/j.tourman.2019.104042

Kozak, N., Kozak, M. A., & Kozak, M. (2008). *Genel Turizm İlkeler-Kavramlar*. Ankara: Detay Yayıncılık.

Kuo, C. M., Chen, L. C., & Tseng, C. Y. (2017). Investigating an innovative service with hospitality robots. *International Journal of Contemporary Hospitality Management*, 29 (5), 1305-1321. https://doi.org/10.1108/IJCHM-08-2015-0414

Lu, L., Cai, R., & Gursoy, D. (2019). Service robots: Value co-creation and co-destruction in elderly care networks. *International Journal of Hospitality Management*, 80, 36-51. https://doi.org/10.1016/j.ijhm.2019.01.005

Mara, M., & Appel, M. (2015). Science fiction reduces the eeriness of android robots: A field experiment. *Computers in Human Behavior*, 48, 156-162. https://doi.org/10.1016/j.chb.2015.01.007

Murphy, J., Hofacker, C., & Gretzel, U. (2017). Dawning of the Age of Robots in Hospitality and Tourism: Challenges for Teaching and Research. *European Journal of Tourism Research*, 11, 104-111.

Osawa, H., Ema, A., Hattori, H., Akiya, N., Kanzaki, N., Kubo, A., Koyama, T., & Ichise, R. (2017). What is real risk and benefit on work with robots?: From the analysis of a robot hotel. Proceedings of the Companion of the 2017 ACM/IEEE International Conference on Human-Robot Interaction, 241–242. 6–9 March, Vienna, Austria. https://doi.org/10.1145/3029798.3038312

Pagallo, U. (2013). Robots in the cloud with privacy: A new threat todata protection?. *Computer Law & Security Review*, 29 (5), 501-508.

Papathanassis, A. (2017). R-Tourism: Introducing the Potential Impact of Robotics and Service Automation in Tourism. *"Ovidius" University Annals, Economic Sciences Series*, XVII (1), 211-216.

Pierce, A. (2015). A Hotel Staffed by Robots. Accessed at. http://www.technologytoday.us/columnPDF/A_Hotel_Staffed_by_Robots.pdf (11.06.2021).

Pinillos, R., Marcos, S., Feliz, R., Zalama, E., & Gómez-García-Bermejo, J. (2016). Long-term assessment of a service robot in a hotel environment. *Robotics and Autonomous Systems*, 79, 40-57. https://doi.org/10.1016/j.robot.2016.01.014

Rodriguez-Lizundia, E., Marcos, S., Zalama, Z., Gómez-García-Bermejo, J., & Gordaliza, A. (2015). A bellboy robot: Study of the effects of robot behaviour on userengagement and comfort. *International Journal of Human-Computer Studies*, 82, 83-95. https://doi.org/10.1016/j.ijhcs.2015.06.001

Schommer, E., Patel, V. R., Mouraviev, V., Thomas, C., & Thiel, D. D. (2017). Diffusion of robotic technology into urologic practice has led to improved resident physician robotic skills. *Journal of Surgical Education*, 74(1), 55-60.

Sekaran, U. (1992). *Research methods for business: A skill building approach*. John Wiley & Sons.

Seyitoğlu, F., & Ivanov, S. (2020). A conceptual framework of the service delivery system design for hospitality firms in the (post-) viral world: The role of service robots. *International Journal of Hospitality Management,* 91, 102661. https://doi.org/10.1016/j.ijhm.2020.102661

Seyitoğlu, F., & Ivanov, S. (2021). Service robots as a tool for physical distancing in tourism. *Current Issues in Tourism,* 24 (12), 1631-1634. https://doi.org/10.1080/13683500.2020.1774518

Szegedi, P., Koronváry, P., & Békési, B. (2017). The use of robots in military operations. *Scientific Research And Education in The Air Force*, 1, 221-230.

Social Tables (2021). Robots in Hotels: 6 Hotel Brands Leading the Way. Accessed at. https://www.socialtables.com/blog/hospitality-technology/hotel-brands-robot/, (17.07.2021).

Touretzky, D. S. (2010). Preparing Computer Science Students for the Robotics Revolution. *Communications of the ACM*, 53 (8), 27-29. https://doi.org/10.1145/1787234.1787244

Trejos, N. (2014). Ready for the Hotel Industry's First Robotic Butler?. Accessed at. https://www.usatoday.com/story/travel/hotels/2014/08/12/aloft-hotels-starwood-robotic-bultler/13954231/, (28.07.2021).

Trejos, N. (2016). Introducing Connie, Hilton's New Robot Concierge. Accessed at. https://www.usatoday.com/story/travel/roadwarriorvoices/2016/03/09/introducing-connie-hiltons-new-robotconcierge/81525924/, (28.07.2021).

Tung, V. W. S., & Au, N. (2018). Exploring customer experiences with robotics in hospitality. *International Journal of Contemporary Hospitality Management*, 30 (7), 2680–2697. https://doi.org/10.1108/IJCHM-06-2017-0322

Tung, V. W. S., & Law, R. (2017). The potential for tourism and hospitality experience research in human-robot interactions. *International Journal of Contemporary Hospitality Management*, 29 (10), 2498-2513. https://doi.org/10.1108/IJCHM-09-2016-0520

Tuomi, A., Tussyadiah, I., & Steinmetz, J. (2021). Applications and implications of service robots in hospitality. *Cornell Hospitality Quarterly,* 62 (2), 232-247. https://doi.org/10.1177/1938965520923961

Tuominen, P. P., & Ascenção, M. P. (2016). The hotel of tomorrow: A service design approach. *Journal of Vacation Marketing*, 22 (3), 279-292.

Tussyadiah, I. P., & Park, S. (2018). Consumer evaluation of hotel service robots. In Stangl, B., & Pesonen, J. (Eds.), Information and Communication Technologies in Tourism 2018 (pp. 308-320). Springer. DOI: 10.1007/978-3-319-72923-7_24

Tussyadiah, I. P., Zach, F. J., Wang, J.(2020). Do travelers trust intelligent service robots?. *Annals of Tourism Research*, 81, 1-14. https://doi.org/10.1016/j.annals.2020.102886

Ural, A., & Kılıç, İ. (2006). *Bilimsel Araştırma Süreci ve SPSS ile Veri Analizi*. Ankara: Detay Yayıncılık.

Vatan, A., & Doğan, S. (2021). What do Hotel Employees Think About Service Robots? A Qualitative Study in Turkey. *Tourism Management Perspectives,* 37*,* 100775. https://doi.org/10.1016/j.tmp.2020.100775

Vaussard, F. C., Fink, J., Bauwens, V., Rétornaz, P., Hamel, D., Dillenbourgh, P., & Mondada, F. (2014). Lessons Learned from Robotic Vacuum Cleaners Entering in the Home Ecosystem. *Robotics and Autonomous Systems*, 62 (3), 376-391.

Wirtz, J., Patterson, P. G., Kunz, W. H., Gruber, T., Lu, V. N., Paluch, S., & Martins, A. (2018). Brave new world: service robots in the frontline. *Journal of Service Management*, 29 (5), 907-931. https://doi.org/10.1108/JOSM-04-2018-0119

Zalama, E., Garcia-Bermego, J. G., Marcos, S., Dominguez, S., Feliz, R., Pinillos, R., & Lopez, J. (2014). *Sacarino, a Service Robot in a Hotel Environment*. In: Armada M., Sanfeliu A., Ferre M. (eds) ROBOT2013: First Iberian Robotics Conference. Advances in Intelligent Systems and Computing, 253, 3-14. https://doi.org/10.1007/978-3-319-03653-3_1, 3-14

Jomat

Journal of multidisciplinary academic tourism

ISSN: 2645-9078

2022, 7 (1): 97-108

https://doi.org/10.31822/jomat.2022-7-1-97

INFO PAGE

Perceptions about the applicability of robot technology in the tourism industry

Abstract

In the research, it is aimed to determine the applicability of robot technology and the importance of technological innovations in the tourism industry. The populatin of the research consists of academicians, managers and students in the tourism industry. In the research, the "convenience sampling" method was used, in which everyone who participated in the research could be included in the sample. While all statements regarding the applicability of robot technology in the tourism industry are adapted from the work of Ivanov, et al., (2018), statements on the importance of technological innovations in the tourism industry are adapted from the studies of Kazandjieva and Filipova (2018). The Cronbach Alpha test was applied for the reliability of the scale, along with the frequency distributions, percentiles, mean values, standard deviations and correlation coefficients from the descriptive statistics of the obtained data. In the research findings, it is accepted that airports, housekeeping activities, tour operator and travel agency services and hotel receptions are the most applicable areas of robot technology in the tourism industry.

Keywords: *Tourism Industry, Robot Technology, Turkey*

Authors

Full Name	Author contribution roles	Contribution rate
Burçin Cevdet Çetinsöz:	*Conceptualization, Methodology, Writing - Original Draft, Writing - Review & Editing, Project administration,*	*40%*
Seden Doğan :	*Conceptualization, Methodology, Writing - Original Draft, Writing - Review & Editing,*	*30%*
Alper Duran:	*Conceptualization, Methodology, Writing - Original Draft, Writing - Review & Editing,*	*30%*

__Author statement:__ Author(s) declare(s) that All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. __Declaration of Conflicting Interests:__ The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article

This paper does not required ethics committee report

Justification: This research was conducted before January 1, 2020. For this reason, it is exempt from "ULAKBIM TRDizin" criterion.