Advances in Hospitality and Tourism Research (AHTR)
is the official and international scholarly research journal of
Akdeniz University Tourism Faculty

Address	Akdeniz University, Tourism Faculty Dumlupınar Boulevard Post Code: 07058 Campus ANTALYA, TURKEY
Telephone	+ 90 242 227 45 50 + 90 242 310 20 20
Fax	+ 90 242 227 46 70

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Abstracting and indexing: Scopus; Emerging Sources Citation Index (ESCI); Ebsco; Leisure, Recreation, and Tourism Abstracts, CAB International; CABI full text; Directory of Open Access Journals (DOAJ); Research Bible; Directory of Research Journals Indexing (DRJI); Scientific Indexing Services; Science Library Index; Index Copernicus; C.I.R.E.T; Open Academic Journals Index (OAJI); MIAR; Sherpa/Romeo; ULAKBIM TR Index.

Volume 9, Issue 2, **ISSN: 2147-9100 (Print), 2148-7316 (Online)**

Advances in Hospitality and Tourism Research (AHTR) 2021
An International Journal of Akdeniz University Tourism Faculty Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online)
Webpage: http://www.ahtrjournal.org/

Advances in Hospitality and Tourism Research (AHTR)
An International Journal of Akdeniz University Tourism Faculty
ISSN: 2147-9100 (Print), 2148-7316 (Online)
Webpage: http://www.ahtrjournal.org/
2021
Vol. 9 (2)

INTERNATIONAL EDITORIAL BOARD

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Webpage: http://www.ahtrjournal.org/

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DOI: 10.30519/ahtr.782679

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ISSN: 2147-9100 (Print), 2148-7316 (Online) 243-267
Webpage: http://www.ahtrjournal.org/

BRANDING HERITAGE TOURISM IN DUBAI: A QUALITATIVE STUDY

Farooq HAQ [1]
Canadian University Dubai, UAE
ORCID: 0000-0002-1620-9226

Joanna SERAPHIM
House of Co-Design, Paris, France
ORCID: 0000- 0002-2208-2428

Anita MEDHEKAR
Central Queensland University, Australia
ORCID: 0000-0002-6791-4056

ABSTRACT

This qualitative paper explores tourism branding for Dubai to develop brand differentiation based on factors influencing heritage tourism. Data was collected through direct interviews with relevant tourists and tourism experts. The paradigm of critical realism was adapted to analyze the data with thematic analysis by extracting related themes. Five emerging themes have been identified: perception of brand authenticity in heritage tourism, Dubai's tourism offerings, heritage branding, marketing suggestions, and heritage tourism valorization. Research outcomes present a strategy for brand marketing Emirati heritage tourism as new strategic advances in tourism management. Practical implications suggest that heritage tourism can achieve brand differentiation among heritage tourism destinations by leveraging authenticity and modernity. This paper contributes to the theory of tourism marketing and management, with the unique case of branding Dubai as part of UAE heritage tourism, by adopting brand communication, brand identity, brand positioning, and brand personality strategies.

Article History
Received 19 August 2020
Revised 6 April 2021
Accepted 7 April 2021
Published online 22 April 2021

Keywords
heritage tourism
qualitative research
brand marketing
Dubai
tourism planning
heritage valorization

[1] Address correspondence to Farooq Haq (PhD), Faculty of Management, Canadian University Dubai, UAE. E-mail: farooq@cud.ac.ae

INTRODUCTION

A heritage brand is based on longevity, positioning, and value proposition, which need precise marketing and communication (Balmer & Burghausen, 2019; Wilson, 2018). The quality of the product reflects the quality of the place, and the story must be emotive and appealing (Pera, 2017; Yilmaz, 2020). Hence, the destination/country whose marketing succeeds in appealing to environmental and cultural associations successfully delivers on corporate, regional, destination, and individual branding. The main purpose of this research paper is to identify factors for successful brand marketing of Heritage Tourism in Dubai particularly and in the United Arab Emirates (UAE) generally. The UAE Tourism Brand is facing proliferation and 'Heritage Tourism' could be presented as a solution to usher in clarity. This will be constructed on brand differentiation strategies based on discussions with tourism providers, consumers, and other stakeholders. This paper suggests that Dubai needs to adopt a brand differentiation strategy to deal with brand-communication, brand-identity, brand-personality, and brand-positioning. These strategies are further justified by explaining the brand value and by preserving authentic cultural heritage as well as the built environment.

The United Arab Emirates is divided into seven Emirate provinces. This study focuses on the Emirate of Dubai, as Dubai has the highest number of in-bound tourists in the country. In 2016, the Emirate of Abu Dhabi welcomed 4,440,314 guests. Sharjah received 1.8 million visitors, whereas Dubai had 14.9 million tourists (The United Arab Emirates Portal, 2020). Dubai entices tourists for its diverse attractions such as beaches, luxury resorts, glamorous shopping malls, the desert and also for its heritage tourism (Seraphim & Haq, 2020). This research attempts to grasp the perception of heritage tourism in Dubai, from the tourism demand and supply perspectives, to craft a branding strategy and contribute towards advances in hospitality and tourism research.

Recently, marketing and tourism researchers have studied the phenomenal growth of Dubai as a business hub and tourism destination (Balakrishnan, 2008; Picton, 2010). However, most studies have been focused on destination branding and place and events marketing, with little interest shown in heritage tourism (Balakrishnan, 2008; Seraphim & Haq, 2020). This gap in literature inspired the authors to study Dubai's heritage tourism as a dynamic tourism product that needs to be designed with valued opinions shared by all stakeholders. This study adopts the qualitative research methodology based on direct interviews with heritage tourism consumers (demand-side) and experts associated with Dubai tourism (supply-side). The ontology of critical realism was adopted where the data was analyzed through thematic analysis to recognize the emerging themes. To enhance the quality and objectivity of this qualitative research, the sample is composed of tourists from three countries with distinctive cultural and institutional backgrounds - Australia, France and Pakistan. Tourism experts (who operate in Pakistan and UAE) that offer heritage tourism in Dubai were also consulted.

LITERATURE REVIEW

Heritage Tourism in Dubai

A country's heritage includes authentic intangible assets such as traditional cultural practices, performances/shows, knowledge or skills, as well as tangible assets including natural and cultural environment, historical sites, and man-made environments (Alexander, 2009; Haq & Medhekar, 2019; Santa & Tiatco, 2019; Su et al., 2020; Timothy, 2018). Intangible assets from Dubai (and the UAE) are falconry, weaving techniques such as *al sadu*, traditional dances such as *Al Ayyala*, knowledge about date palms, the majlis as a cultural and social space, and Arabic coffee (UNESCO, 2019). There are two main types of heritage tourism: (i) natural heritage includes mountains, rivers, beaches, and the desert as part of eco-tourism, and (ii) cultural heritage includes human history, archaeological sites, monuments, and inventions (Kumar & Singh, 2015; Picton, 2010; Timothy & Ron, 2013).

Heritage sites are recognized by the World Heritage Committee, an agency under UNESCO (UNESCO, 2016). With regards to tangible heritage, archaeological sites of the UAE qualify with a high level of authenticity (Bak et al., 2019; UNESCO, 2016). In the case of the United Arab Emirates, one cultural site of the Al-Ain region (Bidaa Bint Saud, Hafit Hili, and Oases areas) was listed, by UNESCO in 2011, as dating from the bronze and iron ages, prior to 2500BC. These areas include prehistoric villages, tombs, palaces, towers, residential and administrative buildings, and wells. The other eight sites on the tentative list and six nominated in 2012 are (i) Settlement and cemetery of Umm-an-Nar Island, (ii) Sir-Bu-Nair Island, (iii) Khor Dubai, (iv) Ed-Dur Site, (v) Al-Bidya Mosque, (vi) Sharjah city: The Gate to Trucial States (in 2014), (vii) The Cultural landscape of the Central Region in the Emirate of Sharjah (in 2018), and (viii) Abu-Dhabi Sabkha. Being part of UNESCO's listed heritage sites attracts more international tourists, "because the inscription guarantees the value of heritage" (Bak et al., 2019, p. 917). In summary, tourists visiting Dubai have access to intangible heritage such as coffee, traditional dances (*al ayyala*), handicrafts (*al sadu* weaving), and cultural practices (falconry, majlis). Tourists can also explore the Creek or Khor (in Arabic) Dubai and learn about maritime trade, pearl diving, and the spice souk, while admiring the old gold souk and traditional merchant mansions.

Interestingly, these UNESCO listed and nominated world heritage sites of the UAE are not properly marketed (Seraphim & Haq, 2020). Hence, the challenge that remains is effective branding of tangible and intangible cultural heritage through marketing, valorization, and communication with stakeholders for tourism planning and development (Mijnheer & Gamble, 2019).

Brand Marketing in Tourism

In order to comprehend the brand-differentiation for Dubai's heritage tourism, the differences between country, place, and destination branding must be perceived accurately. Destination branding only manages the attraction of tourists, while country branding involves the attraction of investors to the country thereby enhancing the sale of local heritage goods, improving the interest of foreign talent and overall development of the country's image (Haq & Medhekar, 2019; Papp-Váry, 2018). In the pursuit of destination/country branding, related to heritage tourism, goals must be set towards the branding of a good, a service, or a company. This set of goals will be attained through the core elements of market branding based on: brand communication, brand identity, brand purpose, brand image, brand positioning, and brand personality.

Goulding (2000) presented a grounded research to measure the authenticity of experience of tourists traveling to heritage sites. Tourists were surveyed about sites' authenticity based on the heritage value of destinations, which proved useful for this study. Alexander (2009) explained brand authentication related to the understanding of tourism destination branding. Consciously following the gaps in earlier authentication studies, this research does not judge the heritage authenticity of a destination or event and accepts at face value each tourist's self-assessment of the authenticity of their heritage experience. Ram et al. (2016) stressed on destinations winning the loyalty of tourists based on the authenticity of the experience offered by the place.

Tourism brand positioning is based on two major approaches: subjective and objective positioning (Chacko, 1996; Rinaldi & Cavicchi, 2016). Objective positioning refers to a destination whose image is built on real physical characteristics; while in subjective positioning, the image is built on perceptions of tourists and intangible characteristics (Eraqi, 2011; Zandieh & Seifpour, 2020). Positioning Dubai as a destination brand involves narrowing the image, and hence subjective positioning needs to be adopted. Destination branding is challenging since perceptions of a destination are linked with multi-dimensional bodies and mean different things to different stakeholders' requirements (Kim et al., 2018). The destination image of the UAE and Dubai, as a Muslim and multicultural place, supports the data collection and business implications for heritage tourism branding.

METHODOLOGY

Research Problem and Objectives

The core problem regarding heritage tourism in Dubai is the brand proliferation of tourism offerings cloaked in confusing layers of similar services. This study intends to fill the vacuum in the literature on heritage tourism brand marketing with triangulated qualitative data. The predominant research question is: "How can brand differentiation be achieved for heritage tourism development in Dubai?"

Given the exploratory nature of this research, a qualitative methodology was considered suitable to reach credible findings based on interviews with tourists and tourism experts. Ontology of critical realism suggests that an objective reality exists that is imperfectly perceived due to different limitations (Pegues, 2007; Perry et al., 1999). The authors decided to adopt critical realism due to the availability of several viewpoints and 'realities' in the heritage tourism environment, and in the thoughts of stakeholders, hence strengthening the impartiality and scholarship of research outcomes (Lincoln & Guba, 2003; Pegues, 2007). Moreover, the opinions of industry experts render the research more effective (Garrod & Fyall, 2000). During data collection, most respondents were reluctant to express their feelings about the heritage and culture of the UAE as they could, unintentionally, cause offence. Hence, consent was sought, and the authors assured all the respondents that their identity would not be disclosed and that their honest feelings on the subject would benefit the research and tourism of Dubai.

Sample Collection and Size

The research problem was addressed by conducting interviews with heritage tourists and tourism experts residing in Australia, France, Pakistan, and the UAE. A balance among the tourists was sought on the basis of gender, socio-economic status, education level and age. There are four reasons for selecting these four countries. Firstly, non-probability sampling constitutes a relevant method suitable for exploratory studies, especially when the topic is new and narrow (Lincoln & Guba, 2003; Rihova et al., 2015). Secondly, since the countries are geographically, socially, and economically very different, the research outcomes could present a distinct contribution to tourism literature. Thirdly, the authors reside in three different countries; therefore, convenient sampling was adopted for data collection. Fourthly, many tourists from these three countries visit Dubai. In 2019, Australia ranked as the fifteenth country with the highest number of tourists visiting Dubai, France was the eleventh, and Pakistan the ninth country (VisitDubai, 2020).

Convenience and purposeful sampling methods were used to identify easily accessible and qualified respondents. Heritage tourists and tourism experts, as part of this study, were chosen by following a pre-set criterion: individuals and tourists who, upon inquiry, expressed interest in heritage, had visited Dubai previously, and consented to be interviewed. Similarly, tourism experts in these countries had to be engaged in tourism businesses focusing on Dubai as a destination and offering heritage experiences as one of their tourism products. All participants had to submit a written consent for the interview and were assured of data confidentiality. Primarily, private and government tourism agencies and heritage centers were requested to nominate heritage tourists and specialists in the four countries. The snowball technique was applied, as the study progressed, to reach out to more relevant respondents (Chen & Shih, 2019; Seraphim & Haq, 2020; Yin, 2017). The questionnaires used to gather data from the two types of respondents (tourists & experts) can be viewed in Appendix A.

This study did not seek the quantity of data but pursued quality. Hence, the sample size was concluded by adopting the criterion of data saturation point - where the received information became saturated after reaching comprehension of distinct understandings linked to the study with no new information being generated, hence validating the number of participants (Alam, 2005; Lincoln & Guba, 2003; Yin, 2017). This research included 49 respondents: 32 tourists and 17 experts. Among the 32 tourists, 8 were from Australia, 16 were from France, and 8 were from Pakistan. Of the 17 experts, 2 work in Pakistan while the other 15 reside in Dubai.

Data Collection and Coding

Through interviews with tourists and experts, distinct understanding about heritage tourism was achieved. All interview copies were read multiple times, by each author, for cross-case thematic analysis validation and probing for meanings and perceptions in the explanations of each interviewee (Chen & Shih, 2019). The thematic analysis used data coding that was steered by research questions guiding the researchers towards findings mapped with research objectives (Miles & Huberman, 2002; Yin, 2017). The primary coding of data collected from each country was based on evidence extracted from all interviews and was managed as separate exercises for cross-case content inquiry, as advised by Miles and Huberman (2002). Subsequently, the same procedure was applied to the four national groups of tourists and experts. Later, memos were posted on transcripts to grasp credible and valuable ideas discernible from discussions with interviewees.

Australian tourists were coded as AT-1 to AT-8. The Pakistani tourists were coded as PT-1 to PT-8 and the experts as PE-1 and PE-2. Similarly, the French tourists were coded as FT-1 to FT-16 and experts working in the UAE were UE-1 to UE-15. Information about each respondent is listed in Tables 1 and 2. The substance of interview transcripts of heritage tourists related to brand perceptions, image, and personality were highlighted and analyzed separately. Likewise, the content of each interview transcript of heritage tourism experts related to brand differentiation, tourism marketing, and heritage were highlighted and analyzed separately. The approach focused on cross-case investigation suggested by Miles and Huberman (2002): responses of tourists and experts to research questions, in four countries, were individually coded, analyzed and connected with the four emerging outcomes. Subsequently, the investigator triangulation was applied: each author analyzed the collected data individually, and finally, all emerging insights were triangulated to identify themes (Alam, 2005; Yin, 2017). This approach facilitated the emergence of ideas and themes reflecting upon the brand-differentiation of heritage tourism for Dubai (Appendix B).

RESULTS

As mentioned earlier, tourists and experts in tourism were interviewed and through these interviews different themes emerged. Experts and tourists began by discussing their perception of authenticity of heritage tourism in Dubai. They then described what Dubai has to offer as a tourist destination. Tourists and experts also suggested initiatives to improve Dubai's branding as a heritage tourism destination and its marketing possibilities. Finally, they thought of ways to valorize heritage tourism in Dubai.

Theme 1: Does Dubai possess authentic heritage tourism attractions?

The heritage attractions that were defined as authentic by the tourists interviewed are historical buildings such as the spice souk, the gold souk, and the forts (where leading families from the Emirates would live and conduct political business). These forts are now museums. Heritage villages are also mentioned, as they showcase Emirati traditions and erstwhile way of life. Religious buildings such as mosques are also considered authentic. The interviewees discussed nature, like the desert and oasis, and the lifestyle that revolves around it. Traditional practices are highlighted through Emirati cuisine, camel races, and palm tree cultivation. Heritage festivals are also appreciated as visitors can experience, in the reconstructed venues, Emirati handicrafts, delicacies, coffee, dances, and songs.

In opposition to these statements, some tourists questioned the authenticity of heritage sites. They believed that the heritage sites were "decorated". Some argued that the desert safari experience in the desert, organized by varied tour operators, looks staged. In fact, numerous desert safari experiences feature dune bashing in the desert, a middle-eastern buffet (that barely features Emirati food), the smoking of 'narguileh' (another middle-eastern practice that is not native to the UAE), a belly-dancing spectacle (Egyptian dance that is performed by a non-Emirati woman), and/or a dervish dance (a Turkish dance) (Seraphim & Haq, 2020). One tourist complained that Muslim history and culture were not adequately promoted:

> "[*Dubai heritage places such as palaces, museums, and markets*] *seem like decorated heritage, not very natural for me*" (AT-8).

Tourism experts acknowledge that Dubai has prominent historical and authentic places.

> "*We have a very long history, of archeological sites: Saruq al Hadid, Jumeirah. We have 3000 years of history and archeology. Tourists can come to Dubai to see how people were living in Dubai in 1930s. They can visit the old house, old courtyard. We have the traditional market, the 'bazaar' a unique thing. That you cannot see in other parts of the world*" (UE-14).

However, they regret that sometimes when tourists see historical sites, some of them believe it is "fake" authenticity. Dubai, in an effort to showcase clean heritage sites, has thoroughly renovated its sites to the point where the original look has unfortunately been lost entirely.

> "*Bastakiya has been refurbished/renovated. Now a part of Old Dubai looks brand spanking new, they are refurbishing, to make it look more sanitized. The problem when you sanitize the place, you are rubbing away the reality of it*" (UE-4).

Theme 2: Dubai's tourism offerings

Despite the challenges faced by heritage tourism, Dubai's attractions are much diversified. On the one hand, Dubai is a famous shopping destination. Visitors also want to see the record-breaking side of the city such as the Burj Khalifa (the tallest building on earth) and unique entertainment options such as indoor skiing. On the other hand, others love Dubai's natural beauty such as the sea and its water sports, the desert, the mountains, and the oasis.

Similar to the tourists interviewed, the tourism experts that were consulted mentioned multiple attractions. They believed that many tourists visit Dubai primarily to see the futuristic part of the city and to have the opportunity to enjoy luxury shopping.

Theme 3: A prominent position for heritage and culture in branding Dubai tourism

As stated earlier, Dubai has a lot to offer. However, heritage sites, traditional practices, and handicrafts are not advertised. Yet, some tourists believe that Dubai cannot compete with its neighboring countries in terms of heritage, such as Egypt, Turkey, Jordan, or Lebanon. Nonetheless, Dubai distinguishes itself from its competitors as being a unique city offering modern and luxurious holidays alongside heritage sites and access to cultural practices such as falconry or camel racing. Many tourist respondents suggested that Dubai should focus its branding on this mix of the historic and the modern. They would like the history of trade routes, pearl trading, and nomadic desert lifestyle to be better explained and valorized. They stated a wish to discover more about indigenous Emirati culture. Some expressed the desire to learn more about Muslim heritage, as the UAE was one of the first countries to have converted to Islam. Others commented that they enjoyed the multicultural aspect of Dubai through food, social interactions, and handicrafts. They preferred to see multiculturalism as part of Dubai's tourism branding.

> "*Dubai should continue to be showcased as a city of the future BUT WITH a past as well*" (UT-3).

> "[…] *offering unique and authentic Arab heritage tourism experience, where the traditional provides a symbiotic experience with the ultra-modern Dubai*" (AT-1).

> "*I found it cool: as it is a cosmopolitan city, you see people from many horizons, and there are other cultures (Lebanese, Indian among others) that are very present in the Emirates*" (FT-1).

Some experts, like the tourists, pointed out that the UAE has a limited range of heritage sites, due to the fact that Emiratis used to be nomads. Their shelters were built for practical purposes and not necessarily for endurance. "*In India there are still many historic buildings recognized by UNESCO. In Dubai people transited and did not leave a lot of traces.*" (UE-4). Despite the challenge, experts reached the same conclusion as tourists and believed that Dubai should openly promote its heritage tourism. The best way to publicize its heritage tourism, according to tourism experts, was to center their branding on Dubai: the city where the future and the past meet. They also believe that Arab culture and folklore should be increasingly showcased. Experts also expressed their hope that multiculturalism could be further valorized as a modern feature.

Theme 4: Marketing suggestions

The heritage tourism of Dubai is not marketed aggressively enough, as extrapolated from most of the interviews.

> "*The marketing of heritage tourism needs to be more visible and accessible. Most people visiting Dubai do not see it as an option*" (PT-8).

Heritage tourism should be publicized inside the country, in particularly at the airport, to ensure that tourists arriving in the country or during transit, international students and professional business visitors, are all aware of the heritage offerings in Dubai. Advertisements for museums and heritage sites could also be placed in city malls, airports, and on roadside billboards. International publicity for heritage tourism in Dubai, through video and poster campaigns, should be promoted to help potential tourists plan their stay. In addition, Dubai is a transit hub that attracts many short-term visitors - many tourists visit Dubai for a short trip, for business or while in transit to other destinations. Some interviewees believed it would be useful to tailor a 4-days package offering a combination of futuristic elements and shopping sites along with tours of the heritage sites. One interviewee even suggested fostering a partnership between modern sites and heritage sites, in order to enhance cross-promotion for combined visits. Another initiative would entail publishing the top 10 heritage sites to visit on Internet engines such as Trip Advisor.

Some distinct sites and features of Dubai require aggressive advertisement. Tourists were agreeably surprised to see that Dubai's society is liberal minded. The dress code is not restrictive, with minimal instructions for women's attire in public. As Paris et al. (2016, p. 10) stated "The cosmopolitanism resulting from the large percentage of expatriates and the international tourists has resulted in a more open-minded population".

Furthermore, Dubai distinguished itself for being a safe place in a troubled Middle Eastern region. There are no geopolitical, terrorist, or political coup issues in the United Arab Emirates. At a personal level, visitors do not fear losing their personal belongings nor do they fret over having entered the "wrong side of the city, at the wrong time".

> "*Show their open-mindedness.* […] *The beauty of the older heritage, and the cleanliness of this country. Because in the end I was afraid to go, I was prejudiced, and it became my favorite country!* […] *Interesting to walk around, learn, discover and change the clichés instilled by the Western media*" (FT-16).

The experts interviewed also believed that marketing and promotion should be done abroad, at the airport and on flights bringing visitors to Dubai. They advocated for an increase in advertising, inside the country, on diverse heritage attractions. They suggested that these promotion videos should showcase heritage, multiculturalism and inform visitors that the city is more liberal, in comparison to its neighbors, and that women are free to dress in "Western style."

> "*The video needs to be improved. They should showcase Dubai as a multicultural city, not just a multi-activity Dubai. When people want to come in Dubai, they do not know if Dubai is conservative or not, how should they dress, etc…*" (UE-4).

Theme 5: Heritage sites and attractions valorization

In addition to marketing advice, tourists and experts suggested valorizing heritage sites and promoting heritage tourism in Dubai. Tourists believe that the heritage sites could be livelier and engaging activities, such as heritage and/or cultural thematic tours, could be added. The introduction of more heritage festivals emerged as a solution to increase tourist interest in heritage tourism. Hosting activities such as concerts, plays, and musicals at heritage sites could also be a way of increasing tourist footfall at these places. One tourist even suggested pairing heritage sites with new technologies, such as virtual reality, to help visitors have an immersive experience of the history of Dubai.

> "*Potentially by associating it with the new technologies* […]. *I would have loved to walk in the Dubai 80's, 50's or even before Virtual Reality on a carpet to have a total immersion, and scalable to live in full size instead of imagining with photos of museums*" (FT-15).

Tourists would also like to interact more with Emiratis in hospitality sectors or tourist sites. Currently, only a minority of Emiratis work in the hospitality and tourism sectors (Seraphim & Haq, 2020). On a similar note, tourists said they wished they could have experienced more of the Emirati culture. They would have liked to see how traditional crafts were made, to have participated in Emirati cooking classes, to have visited a typical local house, to have learned about camel racing and falconry. In shops and in the souk or bazaar, many of the handicrafts were actually not native to the United Arab Emirates. "*I find that we do not have enough opportunity to see or test local crafts*" (FT-2). Local handicrafts should be showcased and advertised in a greater capacity. One tourist even thought of combining traditional handicrafts with the modern and luxurious.

> "*Include luxury and modernity in the Arab tradition.* […] *Ex: Arab perfume, which is a tradition, transformed into a luxury product*" (FT-11).

Some tourists complained that a few of the heritage sites or attractions are mostly in Arabic, hence multilingual services were needed: "*Promote dual languages on the spot, because going to a Heritage Festival and half of it is only in Arabic, it cools down a little bit*" (FT-2).

As mentioned earlier, some expressed regret that Islamic history and culture were not highlighted enough. They believed that these should be increasingly valorized and recreated:

> *"I wish to experience how this part of the world was like before and after establishing Islam. How Islam contributed to social transformation of the tribal lives. Then eventually how the invasion of Western ideas changed the dynamics of the original structures"* (AT-8).

Multiculturalism should also be showcased through ethnic neighborhoods and restaurants. *"Like Singapore, Dubai could maintain its old Arab or Indian quarter and provide authentic experience of heritage to the visitors…as to various nationalities which help to build Dubai as to what it is today… a melting pot of various cultures plus old heritage side by side with modern Dubai*" (AT-1).

Others also mentioned the need for a more widespread and smoother transportation system to access the sites. Experts had similar ideas as the visitors that were questioned. One expert believes that Dubai's heritage tourism needs to design and offer activities and attractions that inspire a tourist to return to the city and experience the sites again.

> "*Having an experience that is so moving that it guarantees a customer to come back. Dubai does not do well with its repeat visitors. People do not stay for long* (average length of stay: 3.5 nights) *and they do not come back.* (2017 figures-obtained from Dubai Tourism's performance-reports)" (UE-5).

Furthermore, professionals pointed out that more Emiratis, especially the youth, should be involved in the tourism and hospitality sectors, in order to relay their knowledge, traditions, culture, and history.

Experts believe that heritage tourism should be more interactive and engaging. They feel that heritage festivals are one of the solutions to enable visitors to experience Emirati culture. Emirati cuisine, including preparation and cooking, also needs to be promoted aggressively.

> "*The problem in museums often, is things are behind glass, you need to read it, you need a guide. There is no cultural experience.* […] *You just see things behind glass. What you need is real experience: The Perfume museum: you can smell the perfume. Coffee tasting at the coffee museum. In many places, there is a lack of inter-activeness, and experience*" (UE-2).

Mobility has also been determined as an obstacle to heritage tourism: *"It takes so long to get there (at the heritage site), there is more traffic. We need to promote the metro. We need golf cart or open tram/heritage tram from the metro to the museum"* (UE-2).

DISCUSSION

Dubai tends to target mostly affluent tourists and the city should also consider attracting tourists with modest budgets and should offer accommodation and experiences for budget tourists:

> "*It is costly; the city is marketed to be costly. One of the cities with the highest visitors spending. It is quite expensive, so people feel that they have to pick what they want to do. People have to forgo one activity, they can do only one activity, and have to cancel the other, but they would have a better experience if they could do both activities. Big gap: no backpacker tourism. No paying guests, family lodging tourists. Airbnb is relatively new*" (UE-5).

The comparison between interviews with tourists and experts indicated many similarities. Experts and tourists agreed on the existence of many heritage sites in Dubai. However, the authenticity of these sites is, sometimes, questioned by tourists. Experts argue that these historical buildings have been renovated to the point of looking "too clean and too new."

In brief, experts and tourists believe that neighboring countries have more heritage sites and Dubai cannot compete on heritage tourism alone. However, what makes Dubai unique is the fact that Dubai is a futuristic city with a soul, implying that it has a rare history that combines the Bedouin lifestyle, pearl trade, and trade routes. Both groups of interviewees highlighted that Dubai should focus its branding on the combination of modern Dubai and historic Dubai. The importance of multiculturalism and Muslim history should also be covered in the heritage tourism package.

With regards to marketing, both groups suggested advertising heritage tourism abroad, on flights, in the Dubai airport, and in the UAE as a whole. Both experts and tourists thought that the open-mindedness of the country, its safety, and its multicultural aspect should be effectively communicated in the marketing campaign.

Many ideas were recognized in this study regarding the valorization of heritage tourism. Both groups believe that more Emiratis should participate in the hospitality and tourism sectors. Tourists want better promotion of Emirati handicrafts and advise an upgrade to Emirati handicrafts by combining traditions and luxury. Some tourists proposed that heritage sites could be paired with artistic performance (concerts, theatre plays) or with technology (like virtual reality) to have a more immersive experience. A few tourists also complained about the lack of communication and the need for multilingual communication at venues.

Experts also asked for more interactive presentations of heritage. They proposed enabling visitors to experience the making of handicrafts or tasting Emirati cuisine. Experts would like Dubai to be more welcoming of budget travelers by offering affordable activities and accommodations. In addition, they would like to have a more widespread transportation system to make the heritage sites more accessible. Experts and tourists often had similar points of view, but their different perspectives enabled them to give additional suggestions for branding and marketing.

All interviews with heritage tourists and experts in the four countries, regarding heritage tourism in Dubai, had similar messages of authenticity as the key attractive opportunity as well as the major weakness. The importance of authenticity supports the findings presented by earlier researchers (Goulding, 2000; Ram et al., 2016). Likewise, modernity and luxury were the predominant brand identity features of Dubai, which mismatched with the spirit of heritage.

> "*It is only about the modern Dubai, they think about its tall buildings and malls and that's it*. […] *Shopping malls, brands, only. No, I don't think Dubai is seen as a Heritage Tourism place unfortunately*" (UE-1).

> "*The limited Arab heritage places of Dubai offer good exhibits and are informative. It is a great learning experience*. […] *The places are not well attended nor well promoted. Most people go to Dubai to visit the modern and extravagant constructions*" (AT-2).

In the opinion of interviewees, the brand positioning of heritage tourism in Dubai is blurred due to the combination of authentic, traditional, modern, and luxurious. The ideas collected exclusively from heritage tourists indicated authenticity as the priority, followed by heritage valorization, affordability, and family packages with the aim of brand-differentiation.

Most experts, who have contributed to this study, also stressed upon the weakness of authenticity in Dubai's heritage tourism, including the challenge of affordability and accessibility. Better communications with travelers could cover the gap in the context of knowledge, culture, people, cuisine, and the innate spirit of society. This research recommends that brand marketing of heritage tourism in Dubai can be achieved by adopting the following branding strategies.

Brand Communication

Most tourists interviewed referred to the lack of effective brand communication as an obvious weakness in Dubai's tourism sector. Again, tourists complained that the information given at various heritage sites was either inadequate or only in the Arabic language. Similarly, at heritage villages in Dubai, most tourists found it hard to talk with locals at the village stalls, indicating serious issues with brand communication.

> "*The museums are well preserved but require more information dissemination mechanisms. Audio guides are needed to better learn about the sites and stand we go through*" (AT-2).

Some tourists expressed frustration that there was no link between tourists, agents, site-managers, and tour guides, and hence they felt shortchanged during their heritage experience which could have been taken as an online or virtual tour. Hence, officials from the tourism and heritage departments need to visit the sites, mingle with tourists, and ask for their opinions and feedback for improvement.

Brand Identity and Image

The brand identity of Dubai is naturally embedded in the desert sand, sea, and cultural dimensions. However, local authorities have recently invested and sincerely worked to alter the identity into that of a modern, multicultural, and open-to-all society, with large Mosques and nightclubs coexisting. Identity and branding of a destination are also based on stories told by tourists (Chen & Shih, 2019; Chronis, 2012; Pera, 2017). Some UAE tourism experts claimed that they used storytelling as heritage tourism marketing. The dominating theme of this study was authenticity that is linked to identity issues related to the tourism of the place (Ram et al., 2016; Timothy & Ron, 2013).

Brand Positioning

Heritage tourism brand positioning in Dubai will require narrowing the image and focusing minutely on heritage tourists. Following the standard tourism positioning process, there is a need for identifying and selecting the competitive advantage and communicating it to tourists (Chacko, 1996). As discussed in findings, the competitive advantage for Dubai is the unique combination of authenticity with modernity and luxury. The authenticity shall primarily be based on the engagement of local Emiratis in heritage tourism activities such as indigenous apparel, cuisine, inherent knowledge, history, and storytelling. When heritage tourists engaged with locals, they found every aspect of their experience to be authentic.

> "*People need to know about culture and traditions. I want them to have contact with us. I encourage local tourist guides. To get in the field and to attract the customer. It is not what is important for you, it is important for the country*" (UE-8).

Brand Personality

Heritage tourism destinations need to enhance their attractiveness, accessibility, and competitiveness, against other niche tourism segments, to cater to the needs of the target market. For example, heritage forts, sites, and monuments are usually located in and around remote archaeological sites, villages, and deserts. The brand personality is required to drive heritage tourism targeting specific market segments. For Dubai, a dual-brand personality is the only option where specific tourists are approached for specific tourism products and services.

A brand personality cannot be a combination of different people; it must be the person with whom tourists would like to associate. Tourists have expressed their preference to mingle with an authentic indigenous Emirati man or woman, who is family-oriented, amiable, and has multi-lingual communication skills – since the demand for authenticity is the bottom-line. Local handicrafts and experiencing traditional practices and cuisine are also in high demand. The theme of modernity and luxury can be covered by apparel and gadgets, but an authentic personality must be natural and a symbol of the local culture and society.

> "*Go to the desert, see the camels, the lifestyle that was at the time the Emirati, taste the dates, henna tattoo, visit a fort, an oasis, because all these things seem authentic, and I have not seen / done elsewhere in another country. It's unique*" (FT-1).

The themes emerging in this research revealed the identification of Dubai branding needs: better brand communication that does not neglect heritage tourism; better coordination between tourists, agents, site managers, tour guides, and site workers. A clear identity that highlights all the attractive elements that Dubai has to offer (such as heritage, modernity, culture, spirituality, open-mindedness, and multiculturalism). A more focused identity might create a more accurate and efficient positioning contributing to an effective brand personality that will target the appropriate tourist groups.

The winning heritage tourism brand for Dubai would begin with highlighting the past, including Arab and Muslim roots, maritime trade routes, and commercial and cultural exchanges with Asia (India and China), Africa, and the Middle East. This past is intimately connected with Dubai's future tourism prospects characterized by multiculturalism, open-mindedness, current Arab and Muslim urban lifestyle, skyscrapers, and modernity. These characteristics carry on the mission of the Golden Age of Islam. For example:

> *"The history of the city is presented as a "success story" or how a small port of pearl fishermen became a powerful metropolis thanks to oil resources" (FT-10).*

The experts have confirmed, in this study, that they are already communicating with customers to modify and improve their branding through customer feedback. The experts note that tourists in Dubai tend to stay for short periods, 3-4 days, and usually do not return. Like the tourists, experts have also highlighted the necessity of preserving authenticity in Dubai's heritage tourism. They regret that, ironically sometimes, in renovating historical buildings, people did not perceive these as real historical buildings as the buildings became too polished and artificially undamaged. To increase authenticity in heritage tourism with an increased focus on Arab and Muslim roots, experts advised including, developing, and promoting more Emirati based activities. Through these cultural and historical features, the link between the past and the future can be exhibited to current and potential tourists.

> "*Amazing feeling to see modern sky rise buildings in the desert is authentic*" (AT-3).

> "*Dubai gives a picture of "young" country with little historical heritage. I think it would be very interesting to focus on its history; especially that of the nomadic peoples and to facilitate and promote access to the desert (around)*" (FT-8).

> *"You need to tell tourists about history and the oldest parts of the city. If you do a tour at the Burj Khalifa, you can start with the old city then transition it down to the Old Dubai, to show people the difference and see there is a history to it" (UE-4).*

CONCLUSION

This qualitative research based on interviews with heritage tourists and providers indicates the significance of heritage authenticity and valorization as key elements for brand differentiation of Dubai's tourism sector. Implications of the research are explained below.

Theoretical Implications

This paper delivers theoretical contributions for advances in tourism research by providing new empirical evidence in relation to heritage tourism brand differentiation. The documentation of differences and similarities regarding brand-differentiation of Dubai- heritage tourism among buyers and sellers across four countries is a significant theoretical outcome of this research. The study has contributed to the theory of brand differentiation and heritage tourism by classifying cohesions and differences between tourism buyers and sellers in four countries. Major themes emerging from the data analysis are authenticity, modernity, and heritage valorization. The unique nature of recognized themes strengthens the theory of brand marketing for heritage tourism.

Managerial Implications

The research findings form a foundation for tourism agencies to understand their customers and can support them in developing an effective heritage tourism branding, planning, and development strategy. The strategy is based on similarities and differences between heritage tourists and tourism providers in various countries. The Dubai based heritage tourism operators need to leverage the major themes of authenticity and modernity. The key tactic is to combine authentic and modern aspects of heritage tourism and deliver these to the market. This paper has stressed upon the engagement of local Emiratis to enhance the authenticity of Dubai heritage tourism. Modernity, luxury, and heritage coexist as an accepted lifestyle in Dubai's society and industries.

The evident threat of tourism brand proliferation can be managed by tourism operators if they adopt brand differentiation based on communication with all stakeholders (Morgan et al., 2003). The brand differentiation has been derived in this study based on brand communication, identity, positioning, and personality. The branding strategy that could be adopted by tourism operators is to position their offerings as means for better communication, clear identity, direct positioning, and a genuine Emirati personality.

Heritage sites should be more valorized and used not only for visits, but also for artistic performances. Local handicrafts should be aggressively promoted and adapted for contemporary use and tastes. Traditional practices should be shared and advertised through marketing of Emiratis restaurants, heritage festivals, camel races, and in making camel farms and falconry training more accessible.

The use of social media and other digital technology shall be implemented frequently to receive feedback and suggestions from tourists. Based on these suggestions, the tourism operators and players can modify and create new offerings for their consumers. The tourism industry needs to specify heritage related goals and pinpoint the people involved, starting from booking agents and ending with travel guides. The training of multilingual guides could include topics such as history, cultural depth, and influence of the site.

Limitations and Future Research

A major limitation of this study was the reluctance of respondents to discuss their observations regarding heritage and culture of the UAE out of the fear that they could, unintentionally, cause offence or even break the law. Several potential respondents, as tourists, or as providers, could not be interviewed due to this reluctance. In addition, the global pandemic of COVID-19 created a barrier for communications with respondents. Most respondents who agreed for an interview later refused due to the threat of COVID-19. Most interviews were finally conducted via ZOOM meetings. Moreover, the secondary interviews, taken after receiving suggestions from reviewers, had to be conducted through online channels. This communication gap also presented a limitation for this research and was managed via ZOOM meetings, with the respondent and team of authors agreeing to mutually convenient times for all.

This research has distinctively applied branding for brand differentiation of Dubai as a heritage tourism destination. Direct interviews were conducted with tourists and experts where findings were analyzed within the ontology of critical realism. Major themes emerging from the data and investigator triangulation were brand perception of Dubai tourism, position of heritage in Dubai's tourism, heritage valorization, and brand building. The research concludes the need to strengthen Dubai's tourism branding based on authenticity, while preserving the heritage and modern/luxury identity.

A future confirmatory research could test the validity of qualitative findings with a larger sample of tourists and experts. The efficacy of global adaptation of proposed brand-differentiation for heritage tourism planning and development could be evaluated in future studies. Furthermore, classification by co-creation of historical sites from Lempert (2015) can be applied to tangible and intangible heritage in Dubai. Quantitative data could be collected from different groups of heritage tourists and experts in other countries to identify new tourism perspectives related to brand differentiation and heritage tourism, for more effective tourism planning and development.

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APPENDICES

Appendix A - Details of Interviewees

Table 1. *Tourists Interviewed*

	Official Description
FT	**Tourists from France**
FT-1	Young, single, visited twice during her engineering studies, travels for fun.
FT-2	Married, mother, artist, travels for fun and family reasons.
FT-3	Married, mother and grandmother, retired, travels occasionally to visit family members.
FT-4	Married, father and grandfather, retired, travels occasionally to visit family members.
FT-5	Married, mother, psychologist, travels internationally once a year.
FT-6	Married, husband, teacher travels internationally once a year.
FT-7	Originally from Germany, works in the finance sector, travels for fun.
FT-8	Young, single, nurse, travels for fun.
FT-9	Married, mother and grandmother, travels internationally once a year.
FT-10	Young, single, works in a bank, travels for fun.
FT-11	Young, teacher, travels for fun.
FT-12	Young, PhD student, travels for fun.
FT-13	Married, mother, retired, travels occasionally.
FT-14	Married, father, retired, travels occasionally.
FT-15	Young, married, PhD student, travels for fun.
FT-16	Young, married, mother, psychology student, travels for fun.
PT	**Tourists from Pakistan**
PT-1	Middle aged, housewife, retired from teaching profession, wife of retired Diplomat so has traveled to many places.
PT-2	Retired Diplomat, traveled to many places.
PT-3	An independent software company owner. When he gets a chance, he visits many countries including UAE for business and personal reasons.
PT-4	Young and married, family business, travels for fun and business.
PT-5	Young and single, software engineer. Visited Dubai many times.
PT-6	Young and married, travels with husband for fun and business.
PT-7	Young and married, mother, open-source IT specialist, travels for business and family trips.

PT-8	Middle aged, housewife. She lived for a while in the UK and has been for Hajj and Umrah. She visited some churches and temples in the UK but did not feel any spiritual presence.
AT	**Tourists from Australia**
AT-1	Middle-aged, single woman in university teaching profession. Travels for family visits, holiday, culture and heritage, and tourism.
AT-2	Middle-aged, married woman in university teaching profession. Travels for family holiday, fun, and tourism.
AT-3	Middle-aged, married man in university teaching profession. Travels for family visits, holiday, fun, entertainment, and tourism.
AT-4	Young and single woman in university teaching profession. Travels for business and tourism.
AT-5	Young and single woman in university teaching profession. Travels for business, family visit, fun, holiday, and tourism.
AT-6	Retired married man, electrical engineer. Travels for family holidays and tourism.
AT-7	Young female dentist. Travels for family visits, fun, heritage tourism, food, and sightseeing.
AT-8	Married medical female specialist. Travels for business, family visits, and tourism.

Table 2. *Tourism Experts Interviewed*

	Official Description
UE	**Tourism Experts from the United Arab Emirates**
UE-1	The Assistant Head Manager at a Dubai museum.
UE-2	Local entrepreneur owning forty businesses in USA and UAE. He started The Arab Culturalist as a UAE based socio-cultural consultant. Earlier, he was the supervisor and trainer at "Sheikh Mohammed Centre for Cultural Understanding".
UE-3	Project manager
UE-4	A founder of an experiential tourism company
UE-5	A founder of an experiential tourism company
UE-6	A founder of an experiential tourism company
UE-7	Tour guide & tour manager
UE-8	Emirati tour guide
UE-9	Emirati tour guide
UE-10	Emirati tour guide
UE-11	Falconers/operation manager
UE-12	A founder of an experiential tourism company
UE-13	A professional architect who was born and bred in Bastakiya, an area of old Dubai. He retired from the respected position of Director of the Architectural Heritage Department at Dubai Municipality. He is enthusiastic about protecting heritage and has been involved in activities to protect historical locations in the UAE.
UE-14	Group Marketing Director of an experiential tourism company
UE- 15	Emirati Tour Guide
PE	**Tourism Experts from Pakistan**
PE-1	Young and married, family business in travel and tourism, seeking innovation in tourism business.
PE-2	Young and married, ancillary business of booking trips in Pakistan and the Middle East.

Appendix B - Questionnaires

Questionnaire for tourists

1. How do you perceive Dubai in general in terms of tourism?
2. How do you perceive Dubai in terms of Arab heritage tourism?
3. What do you think is the brand identity or brand personality for heritage tourism in Dubai?
4. What is an authentic experience for you in terms of heritage tourism in Dubai?
5. When you visit the UAE what do you hope to experience in terms of Arab heritage tourism?
6. Which authentic heritage tourism experience did you experience in Dubai?
7. What do you think about Old Dubai heritage, desert villages, and the Dubai Souks?
8. What could be improved in Dubai in terms of heritage tourism? What do you wish to see in terms of heritage tourism in Dubai?
    a. How could it be delivered?
    b. How would it help Dubai differentiate itself from other touristic destinations in UAE, like Abu Dhabi?
9. How could Dubai differentiate itself from other countries based on heritage tourism, such as Turkey, Oman, and Egypt?
10. What do you think Dubai should modify in terms of Arab heritage tourism branding? Why? To what end?
11. If you were a marketer, how would you like to brand Arab heritage tourism experience in Dubai?

Questionnaire for tourism experts

1. Regarding heritage tourism, what is your business' brand identity?
2. How do you think your customers could help to improve your branding?
3. How is Dubai perceived in general in terms of tourism?
4. How is Dubai perceived in general in terms of heritage tourism? What is Dubai's image?
5. What could be improved in Dubai in terms of heritage tourism? What do you wish to see in terms of heritage tourism in Dubai?
    a. How could it be delivered?
    b. How would it help Dubai differentiate itself from other touristic destinations?
6. How could Dubai differentiate itself from other countries based on Heritage tourism?
7. What do you think Dubai could modify in terms of branding? Why? To what end?
8. How do you use customer, market, and media (specifically social media) to improve your business marketing and branding?
9. How can we improve communications between agencies, government, tourists, media, and heritage tourism places to improve the heritage tourism branding & marketing in Dubai?

DOI: 10.30519/ahtr.894577

Advances in Hospitality and Tourism Research (AHTR) | 2021
An International Journal of Akdeniz University Tourism Faculty | Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online) | 268-291
Webpage: http://www.ahtrjournal.org/

CULTURAL DESTINATION ATTRIBUTES, OVERALL TOURIST SATISFACTION AND TOURIST LOYALTY: FIRST TIMERS VERSUS REPEATERS

Ozan ATSIZ [1]

Department of Tourism Management, Yozgat Bozok University, Turkey

ORCID: 0000-0003-2962-1903

Orhan AKOVA

Department of Tourism Management, Istanbul University, Turkey

ORCID: 0000-0001-7740-2938

ABSTRACT

This paper analyses the effects of the cultural attributes of tourist destinations on the satisfaction levels of visitors and the impact of this satisfaction rating on visitor loyalty. Additionally, a multiple-group analysis was conducted to compare the responses of first-time visitors and repeat visitors. For this study, a self-administered questionnaire was used to survey 411 international tourists who were visiting Istanbul, Turkey, through convenience sampling. The findings indicated that cultural attractions at the destination impacted the overall satisfaction rating of the visitors, and that this specific satisfaction rating determined the loyalty of the tourist to return to the destination. This relationship between cultural attractions, satisfaction and visitor loyalty was a significant factor for both groups.

Article History

Received 10 March 2021

Revised 14 August 2021

Accepted 16 August 2021

Published online 29 Sep. 2021

Keywords

cultural destination attributes

tourist satisfaction

tourist loyalty

first-timers

repeaters

INTRODUCTION

A cultural tourism destination is considered as a place with a variety of cultural attractions that meet the requirements of visitors (Atsız et al., 2020) and, ultimately, impact their overall satisfaction with the destination (Huh & Uysal, 2004). While tourism is the focus of these destinations, their cultural attractions have a determining role in the overall satisfaction and loyalty of visitors to that destination (Huh et al., 2006). Therefore, the standard and performance of these venues have a vital function in ensuring

[1] Address correspondence to Ozan Atsız (Ph.D.), Faculty of Tourism, Tourism Management, Yozgat Bozok University, Azizli, Yozgat, Turkey. E-mail: ozan.atsiz@bozok.edu.tr

tourist satisfaction and loyalty. An analysis of these key attributes is critical in providing a successful marketing and development strategy to attract tourists to a destination (Eusébio & Vieira, 2013). Examining the impact of cultural attractions on visitor satisfaction is particularly important to ensure that the destination remains competitive, as positive feedback to these attributes will enhance the loyalty of tourists to return to the destination (Baloglu et al., 2004).

The literature highlights several studies on the effect that the facilities and features of a tourist destination have on visitor satisfaction and loyalty (Baloglu et al., 2004; Eusébio & Vieira, 2013; Ozturk & Gogtas, 2016). Moreover, the impact of destination attributes on tourist satisfaction was examined by some prior studies (Albayrak & Caber, 2013; Alegre & Garau, 2010; Biswas et al., 2020; Hui et al., 2007; Kozak, 2002; Kwanisai & Vengesayi, 2016) or tourist loyalty (Vareiro et al., 2019). Moreover, these studies generally investigate the general features of a destination rather than on specific aspects such as culture or heritage. Although its cultural attractions are fundamentally important to a destination and motivate many interested tourists to visit (Akova & Atsiz, 2019; Atsız et al., 2020), inadequate holistic research has been conducted on the impact of these attractions on tourist satisfaction and loyalty. Additionally, this evaluation can offer different results as it depends on whether the tourist was a first timer or a repeat visitor (Moniz, 2012). A review of the literature failed to yield any research that compared the experiences of first time and repeat visitors in this regard.

Istanbul, the most populous city in Turkey with over 15 million inhabitants (Turkish Statistical Institute (TUIK), 2020), which attracted a similar number of tourists in 2019 (İstanbul Provincial Directorate of Culture and Tourism, 2020), was the selected destination for this research. The city has many cultural and historical attractions that were included in the UNESCO World Heritage List in 1985 (UNESCO, 2020). The cultural heritage areas that were registered are "Sultanahmet Archaeological Park", "Suleymaniye Conservation Area", "Zeyrek Conservation Area", and "Land Walls Conservation Area." Additionally, Istanbul has numerous tangible and intangible cultural assets (Gursoy et al., 2021). Despite its many attractions, Istanbul has failed to capitalise on tourism revenues from the worldwide cultural tourism market (Gezici & Kerimoglu, 2010). With this tourism trend on the rise, many destinations are developing their cultural attractions to encourage potential visitors and to promote repeat visits (Altunel & Erkut, 2015). To date, studies on the cultural attractions of Istanbul have not featured in the literature. This study, therefore, aims to fill the gap in the research by analysing the impact of cultural attributes on the overall satisfaction response of tourists and visitor loyalty. The research will employ PLS-SEM, which is partial least squares–structural equation modelling. Additionally, this study will compare this evaluation according to the frequency of visits by tourists (i.e. first time and repeat tourists) through multi-group analysis. This analysis, as a composite-based technique, is recommended and deemed to be more appropriate for PLS-SEM research (Rasoolimanesh et al., 2017).

This study will make a considerable empirical contribution to the literature in terms of the impact of cultural characteristics of a destination on tourist satisfaction and loyalty. Additionally, it will add to the knowledge by revealing the differences in satisfaction and loyalty of first time and repeat visitors to a cultural destination, and by providing a comparison between the specified tourist groups in terms of frequency of visit. Thus, the literature on tourism also will benefit from a methodological contribution. In addition, the findings will be beneficial to planners in tourist destinations in creating policies for cultural tourism and for tourism scholars.

The study has been divided into several parts. The first part provides a theoretical appraisal of the cultural attributes of the destination, tourist satisfaction and loyalty, and the development of hypotheses. The research method and results will be presented in subsequent sections, followed by discussion and a detailed demonstration of the implications of the findings. Finally, the limitations of the research and suggestions for further studies will be provided.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Cultural Destination Attributes

Destinations, as "amalgams of tourism products, offering an integrated experience to consumers" (Buhalis, 2000, P.97), have various attributes (e.g. nature, history, local culture, hospitality, infrastructure, service quality, accessibility, attractions both cultural and natural) that encourage tourists and allow the destinations to differ from others by providing unique offerings (Moon & Han, 2018; Sirakaya et al., 1996). Among others, attractions particularly based on culture and heritage have gained in popularity and importance in many destinations (Gursoy et al., 2021; Huh & Uysal, 2004).

This reflects the long-held high level of interest by tourists in these attractions and activities. Cultural tourism has been widely examined by tourism scholars in different settings since 1970 (McKercher, 2020). Much of the previous work focused on documenting the market size, examining cultural tourists, and the economic impacts of cultural assets on destinations (Richards, 2018). Additionally, lists of cultural and heritage characteristics of a destination have been identified and their impact on tourists and destinations have been investigated (Huh & Uysal, 2004).

These attributes comprise many tangible and intangible cultural elements, services and other amenities that may attract tourists to a destination (Huh & Uysal, 2004; Lew, 1987). They are pivotal attractions that enrich the experience of the tourist in the destination (Prentice, 1993), while Reisinger et al. (2009) stated that they are among the essential components that have rich potential in creating future tourism demand. These attractions have been operating in numerous guises, but no standardised mechanism exists in the literature for their evaluation. In the tourism literature, several researchers identified and grouped the main or general cultural attributes of a destination. For example, a study by Huh and Uysal (2004) identified four main cultural attributes in a destination. The first relates to cultural attractions that include “museums, galleries, culture villages, historic buildings, and monuments”, while the second focuses on heritage attractions, such as “handcrafts, architecture, traditional scenery, and the arts”. Apart from these attributes, general tourist attractions and maintenance factors are considered as major attributes of a cultural destination. The general tour attractions comprise elements such as “religious sites, souvenirs, theatres, theme parks, tour packages, food, shopping venues, and guides”, while the maintenance factors can be defined as facilities that satisfy the needs of tourists in terms of accessibility, events, information, and accommodation. Kim et al. (2007) also identified four main cultural destination attributes, which included musical events, commercial activities, indigenous festivals, and fairs and activities for those seeking an educational or aesthetical experience. Leask (2010) determined that museums, galleries and heritage attractions are some of the most important cultural attributes. Ghosh and Sofique (2012) detected two main cultural heritage attributes of a destination that impact the overall satisfaction of tourists – civil attractions (organised trips, music and dance, festivals and events, theatres and drama) and heritage attractions (monuments and historic buildings and architecture). Kim (2014) highlighted the role of local culture, events and activities, and hospitality as some attributes of a cultural destination that would provide memorable experiences for visitors.

Although many studies have examined the attributes of cultural destination both separately and holistically, there is no clear consensus on which cultural attributes should feature in a destination (Jumanazarov et al., 2020). Some scholars have emphasised that these attributes could differ across destinations because the attractions are unique to that destination. However, a study by Huh and Uysal (2004) shows the most promise as it clarifies the main attributes for a cultural destination.

Tourist Satisfaction

Tourist satisfaction is measured by comparing their experience of the destination with their expectations (Pizam et al., 1978). According to Eusébio and Vieira (2013), tourist satisfaction involves an emotive response to experiences at the destination. Satisfied tourists show that their expectations of the destination have been fulfilled and their experience was as good as anticipated (Chon & Olsen, 1991). Therefore, the aspirations or expectations of the tourist prior to the visit and their actual experience of the destination are major factors that affect the level of satisfaction for tourists (Biodun et al., 2013). Other findings also highlighted the mental and emotional responses of tourists to their experience at a destination (del Bosque & San Martín, 2008).

Tourist satisfaction is regarded as an essential element for a destination, as it provides the advantage of distinguishing it from other locations, it boosts its reputation, and determines the repeat selection of a destination by the visitor who has appreciated the services and attributes provided by the destination (Eusébio & Vieira, 2013). An evaluation of the overall satisfaction levels of tourists would be beneficial to those working in hospitality and tourism, so that they may meet the needs of visitors, determine the main advantages and disadvantages of the venue, and identify issues that are crucial for providing a successful experience for the tourist (Meng et al., 2008). It has been widely recognised that the cultural attributes of a destination greatly enhance the overall satisfaction and distinctive experience of a destination for visitors.

Tourist loyalty

Many studies have acknowledged the significance of loyalty in the marketing of tourism and destinations (Gursoy et al., 2014; Suhartanto et al., 2020). Tourist loyalty has been shown to be a key factor in creating and maintaining the social and economic development of a region. This concept has been highly researched in the tourism sphere, and while previous research focused on the general attractions of a destination, limited attention has been paid to the cultural aspects. Research on loyalty mainly utilises two approaches – behavioural and attitudinal loyalty (Zhang et al., 2014).

Behavioural loyalty is measured by the frequency of visits to a business, attraction, or destination, and provides a genuine portrayal of how the performance of an attribute compares with others (Suhartanto et al., 2020). However, behavioural measurements of loyalty have been criticised for their lack of hypothetical analysis and their constricted appraisal of the multifaceted and energetic behaviour of tourists (Suhartanto, 2018). In addition, evaluating loyalty with this approach can hinder the measurement of real loyalty (Gursoy et al., 2014). Therefore, behavioural loyalty is not a helpful method for examining tourist loyalty to cultural attributes of destinations. Another method for examining loyalty (i.e. loyalty intention or conative loyalty) is through attitudinal methods (Almeida-Santana & Moreno-Gil, 2018). This refers to the dedication of visitors to buy goods or services (Cong, 2016), to recommend destinations that they have visited, and to buying the same product or service even if its price has increased (Yoon & Uysal, 2005). This is the conative element of the attitudinal method (Ajzen, 2005). Attitudinal loyalty should be anticipated as it is constructed on the tourist revisiting a destination with the intent to promote and support the attractions and the hospitality in the location (Suhartanto et al., 2020). Anticipating this type of behaviour is critical for the tourism sector (Reichheld, 2003). Therefore, it is appropriate for this research to use attitudinal loyalty when theorising and measuring loyalty towards attributes of cultural tourism.

Relationships between variables and hypothesis

According to Babolian Hendijani (2016), it is crucial to investigate the determinants of tourist satisfaction for a destination to derive a long-term competitive advantage. Tourist satisfaction has been broadly studied in the hospitality and tourism arena. Various scholars have attempted to assess the determinants of satisfaction and its effect on the behavioural intentions of tourists. The studies show that numerous factors determine satisfaction with a destination, such as the quality of service, the tourist experience, the perceived value, destination image, socio-demographic characteristics, and the attributes of the destination (Cetin, 2020; Chen & Myagmarsuren, 2010;

McDowall, 2010). Additionally, there is limited value in investigating the influence of these attributes on the overall satisfaction levels of visitors to different tourist settings (Johann & Ghose, 2018; Kozak, 2002; Ozturk & Gogtas, 2016). To get a better knowledge about the tourist evaluation towards cultural/heritage attributes and tourist satisfaction on these attributes has a pivotal role for destination managers, planners, and marketers in terms of destination positioning and promoting (Chi & Qu, 2008; Yoon & Uysal, 2005). Many scholars have demonstrated that the general attributes of a destination impact and determine overall tourist satisfaction (Alegre & Garau, 2010; Biswas et al., 2020; Eusébio & Vieira, 2013; Johann & Ghose, 2018; Kozak, 2002). In addition, Ghosh and Sofique (2012) emphasise that heritage attractions have a key role in creating tourist satisfaction. Huh and Uysal (2004) also state that the cultural and heritage attributes of a destination influence tourist satisfaction. Therefore, the forthcoming hypotheses were formulated:

Hypothesis 1: General tour attractions affect overall tourist satisfaction.
Hypothesis 2: Heritage attractions of destination affect overall tourist satisfaction.
Hypothesis 3: Maintenance factors of destination affect overall tourist satisfaction.
Hypothesis 4: Cultural attractions of destination affect overall tourist satisfaction.

The link between tourist satisfaction and loyalty has been widely studied (Eusébio & Vieira, 2013; Gursoy et al., 2014; Lee et al., 2011; McDowall, 2010; Suhartanto et al., 2020). The research emphasises that understanding the satisfaction level of tourists can be helpful in creating tourist loyalty to the destination. Additionally, these studies concluded that tourist satisfaction determines loyalty. Thus, the next hypothesis was formulated:

Hypothesis 5: Tourist satisfaction influences tourist loyalty.

This study also examines these variables according to the frequency of visits by tourists, both as repeat and first timer visitors, by employing a multi-group analysis. In the extant literature, this comparison is generally conducted on the image of the destination or the experience of the tourist (Schofield et al., 2020). Chi (2012) conducted a study on first-time and repeat visitors to examine loyalty to and satisfaction with a destination. According to this research, tourist satisfaction is key to creating loyalty to a destination among first-time visitors. The use of multi-group analysis to determine satisfaction with the attributes of cultural destinations and the loyalty of tourists measured by the frequency of their visits is not evident in the existing literature.

We sum up the set of hypotheses to be examined in Figure 1.

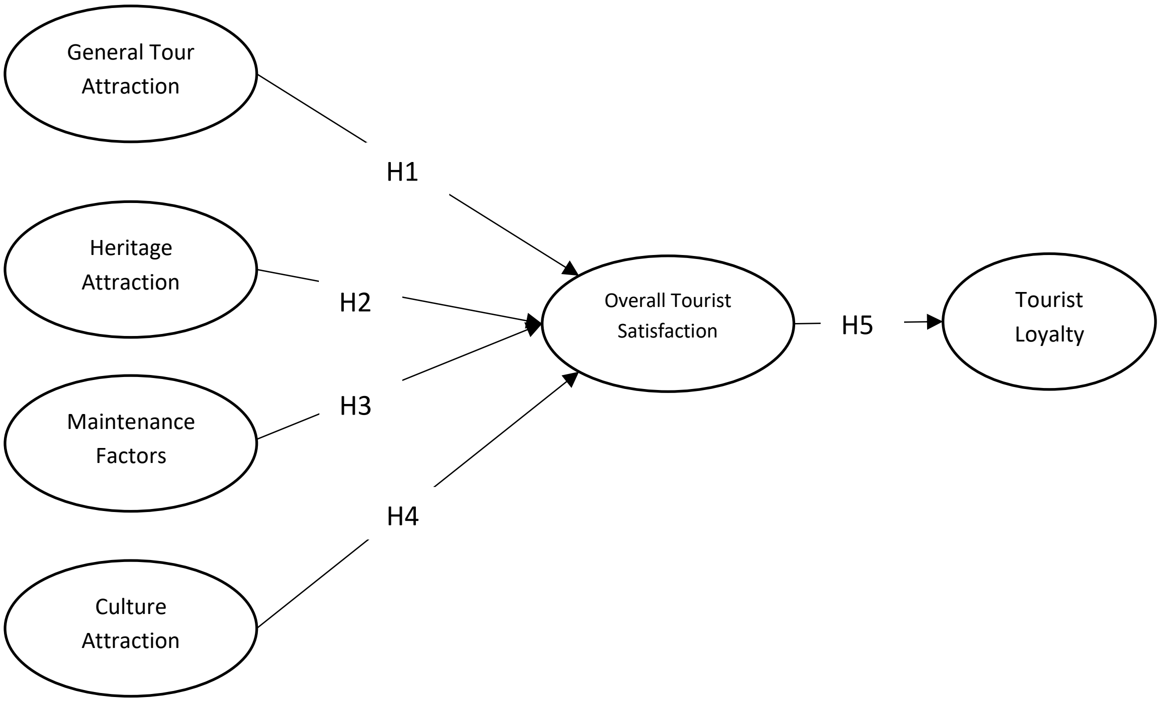

Figure 1. *The proposed model*

RESEARCH METHOD

Research approach and instrument

A quantitative research method was adopted in this study. Partial least squares structural equation modelling (PLS-SEM) was utilised to understand the role of the attributes of cultural destinations, overall tourist satisfaction and loyalty. A self-administered questionnaire was employed for this study. The first part of the questionnaire deals with the measurement of these cultural attributes under 23 headings (Huh & Uysal, 2004). In this section, four headings relate to overall tourist satisfaction (Oliver, 1980) and three to tourist loyalty (Zhang et al., 2014). All headings in this section were measured by the 5-point Likert scale, where 1 equals strongly disagreed and 5 is strongly agree. The second part includes demographic information about the participant, such as age, gender, education, and previous visits to Istanbul. The research instrument was reviewed and revised by four tourism academics before the data was collected.

Sampling and surveying

Data was gathered from tourists visiting Istanbul through convenience sampling between March 10 and 16, 2019. This is an economical sampling method that allows for swift data collection. A self-administered questionnaire was conducted with tourists in the departure terminal of the airport. First, they were asked whether they had visited and experienced the cultural attractions of Istanbul. They were then asked to participate in the survey questionnaire. The questionnaires were distributed to groups or individual tourists. In all, 450 questionnaires were distributed and collected. However, of this number, 411 were suitable (95% confidence and at least 5%) for data analysis. Cochran's formula (Parvin et al., 2020) state that 384 samples are sufficient for huge or large populations (approximately 15 million tourists arrived in Istanbul in 2019).

Common-method bias

Since the data was collected via a questionnaire, a bias can occur during the research process. Respondents were first asked to join in the research freely and willingly. This was done to lessen the social desirability bias of the responses (Podsakoff et al., 2003). This study then evaluated the likelihood of common method variance utilising Harman's one-factor test (Fuller et al., 2016). According to this test, the common factor explains 31% of the variance in the model. Finally, a full collinearity assessment was used to assess common method bias, and variance inflation factor (VIF) values were evaluated. According to this approach, VIF values are expected to equal 3.3 or lower (Kock, 2015). In this research, all values ranged between 1.409 and 3.271, indicating acceptable.

Data analysis

The data was investigated by utilising the statistical software SPSS 24.0 and Smart-PLS. An exploratory factor analysis was tested by utilising SPSS 24.0, and measurement and structural models were conducted using Smart-PLS 3 to assess the link between constructs recommended in the research model.

RESULTS AND FINDINGS

Demographic profile assessment

Table 1 illustrates the participants' demographic information. There were more male (57.7%) than female participants (42.1%), whereas only 1.5% of the respondents were aged 65 years or older. Respondents between the ages of 25 and 44 years (60.3%) predominated the sample. Regarding levels of education, 33.1% of the participants had a bachelor's degree, while 28% held a master's qualification. Most of those surveyed were single (58.6%), with 41.1% married. The majority of the respondents had visited the destination independently (83.2%). The results also showed that 52.3% of the respondents were first-time visitors.

Table 1. *Sample characteristics*

Variable	Description	Frequency	%
Age	15-24	111	27
	25-44	248	60.3
	45-64	45	11
	65+	6	1.5
	Unspecified	1	0.2
Gender	Female	173	42.1
	Male	237	57.7
	Unspecified	1	0.2
Marital Status	Single	241	58.6
	Married	169	41.1
	Unspecified	1	0.2
Education	Basic Education (Primary or secondary school)	18	4.4
	High school	52	12.7
	College diploma	67	16.3
	Bachelor's Degree	136	33.1
	Master	115	28
	Ph.D.	20	4.9
	Unspecified	3	0.7
Type of travel	Independent	342	83.2
	Organized Package Tour	68	16.5
	Unspecified	1	0.2
Have you been in Istanbul before?	Yes	215	52.3
	No	196	47.7
Total		411	100

Exploratory Factor Analysis (EFA)

As illustrated in Table 2, Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy, Bartlett's Test of Sphericity, and p values are appropriate to employ EFA. With EFA, factor loadings should be higher than 0.40 (Stewart et al., 2001). In this study, four items (i.e. theatres, tour packages, food, and arts) of cultural destination attributes that were less than 0.40 were excluded from the analysis. The results of the analysis are shown in Table 2. Additionally, the cumulative percentage of variance (ranged between 5.44% and 74.605%) and Eigenvalue > 1 (Kaiser's criteria) rule were adopted for the EFA, as shown in Table 2 (Williams et al., 2010). Finally, the values for skewness and kurtosis were proposed as +2 and -2 for normal distribution (George & Mallery, 2010), thus confirming this study's normality.

Measurement model test

The item consistency, convergent, and discriminant validity of the scales were examined for a measurement model test. All the outer loadings of items (except 'guides') surpassed the 0.50 threshold (Bagozzi et al., 1991). The items below 0.50 were excluded from the model and only one item was deleted from the process, as presented in Table 2. The convergent and discriminant validity were assessed in the model. Internal consistency was examined by means of convergent validity. Therefore, composite reliability, Cronbach's alpha coefficients, and rho_A were used to ensure internal consistency reliability. As shown in Table 2, all of Cronbach's alpha coefficients, which show the reliability of constructs and reflect how the observed constructs investigate the latent variable, are ranged from 0.688 to 0.878, so the results indicate adequate reliability for this model (Taber, 2018). Composite reliability is another reliability measure that should be above 0.70 (Chin, 2010), and all values were above 0.85, which was satisfactory for the measurement model. In addition, rho_A was another indicator that should be calculated for a consistent reliability measure of the partial least squares. In this measurement model, the values of rho_A were above the 0.70 thresholds that are seen as acceptable levels (Dijkstra & Henseler, 2015). Considering all three indicators, it can be concluded that internal consistency reliability was established for this model. Therefore, there was no lack of internal consistency reliability for this study.

Table 2. *Internal consistency results of exploratory factor analysis (EFA), measurement model and reliability of factors*

		EFA				Measurement Model			
	Construct/item	**FL**	**E**	**VE (%)**	**CA**	**SFL**	**rho_A**	**CR**	**AVE**
Cultural Destination Attributes	General Tour Attraction		7.61	40.077	0.798		0.834	0.856	0.546
	✓ Religious places	0.625				0.762			
	✓ Souvenirs	0.814				0.846			
	✓ Theme parks	0.753				0.786			
	✓ Festivals/events	0.602				0.634			
	✓ Shopping places	0.462				0.644			
	✓ Guides	0.462				[del]			
	Maintenance Factors		2.01	10.580	0.812		0.814	0.859	0.551
	✓ Accessibility	0.702				0.792			
	✓ Indoor facilities	0.634				0.749			
	✓ Atmosphere/people	0.669				0.755			
	✓ Information centers	0.777				0.753			
	✓ Accommodations	0.640				0.656			
	Heritage Attraction		1.67	8.794	0.791		0.807	0.879	0.709
	✓ Handcrafts	0.434				0.784			
	✓ Architecture	0.780				0.870			
	✓ Traditional scenery	0.757				0.869			
	Culture Attraction		1.03	5.44	0.878		0.882	0.910	0.670
	✓ Museums	0.746				0.831			
	✓ Galleries	0.738				0.783			
	✓ Culture villages	0.689				0.811			
	✓ Historic building	0.576				0.855			
	✓ Monuments	0.532				0.812			
	KMO: 0.886 Bartlett's Test of sphericity; 907.254; p<0.000								
Tourist satisfaction	Overall Tourist Satisfaction		2.984	74.605	0.877		0.884	0.920	0.741
	✓ Overall I am satisfied in Istanbul.	0.858				0.853			
	✓ I believe I received what was promised during my trip.	0.881				0.872			
	✓ My visit to Istanbul met my expectations.	0.914				0.909			
	✓ My visit to Istanbul exceeded my expectations	0.798				0.807			
	KMO: 0.647 Bartlett's Test of sphericity; 291.350; p<0.000								
Tourist Loyalty	Tourist Loyalty		1.966	65.527	0.683		0.772	0.848	0.653
	✓ I would visit Istanbul in the future.	0.823				0.861			
	✓ I will share my experiences with others when I return home.	0.867				0.860			
	✓ I will share my experiences online with others when I return home.	0.732				0.691			
	KMO: 0.644 Bartlett's Test of sphericity; 291.051; p<0.000								

Remark: FL (Factor Loading); E (Eigenvalue); VE (Variance Explained); CA (Cronbach Alpha); SFL (Standardized factor loadings); CR (Composite Reliability); AVE (Average of variance extracted); [del]: Deleted item.

Convergent validity was calculated with average variance extracted (AVE), which should have values above 0.50. As shown in Table 2, AVE scores ranged between 0.546 and 0.709. These values, therefore, confirm convergent validity. Discriminant validity was established based on the Fornell–Larcker criterion (Table 3) and HTMT (Table 4) ratio. This method highlights the distinction of constructs from one another (Hair et al., 2016). The square root of AVE for each of the latent dimensions should be higher than the correlations of any other latent dimensions, in accordance with the Fornell–Larcker criterion (Chin, 2010). This criterion was adopted for this research. Additionally, the Heterotrait–Monotrait ratio of correlation (HTMT) was proposed to assess the discriminant validity, and all values of this approach should be below 0.9 (Henseler et al., 2014). As shown in Table 4, all scores are below 0.9. In summary, it can be inferred that discriminant validity is well established for this measurement model.

Table 3. *Discriminant validity (Fornell-Larcker criterion)*

Constructs	1	2	3	4	5	6
Culture Attraction (1)	**0.819**					
General Tour Attraction (2)	0.519	**0.739**				
Heritage Attraction (3)	0.668	0.513	**0.842**			
Maintenance Factors (4)	0.479	0.418	0.558	**0.742**		
Overall Tourist Satisfaction (5)	0.441	0.324	0.371	0.286	**0.742**	
Tourist Loyalty (6)	0.327	0.286	0.290	0.289	0.286	**0.808**

1.**All correlations are significant at the 0.01 level (p<0.001).
2.Boldface numbers are the square root of the AVE.

Table 4. *Heterotrait-Monotrait Ratio*

Constructs	1	2	3	4	5	6
Culture Attraction (1)						
General Tour Attraction (2)	0.617					
Heritage Attraction (3)	0.794	0.646				
Maintenance Factors (4)	0.586	0.560	0.646			
Overall Tourist Satisfaction (5)	0.497	0.362	0.560	0.330		
Tourist Loyalty (6)	0.409	0.391	0.362	0.385	0.842	

Structural model test

The structural model of the research was established according to the outputs of the measurement model test. The research findings show that a variance of 21% is shown for overall tourist satisfaction and 48% for tourist loyalty. Therefore, the coefficient of determination (R^2) values for overall tourist satisfaction and tourist loyalty are greater than the 0.20 cut-off proposed by Hair et al. (2016). In addition to the calculation of R^2, predictive relevance was used to ensure an additional model fit assessment (Geisser, 1975; Hair et al., 2016). This practice shows the competence of the model to forecast the manifest indicators of each latent construct (Rahman et al., 2020). The cross-validated redundancy (Stone-Geisser Q^2) was calculated to investigate the predictive relevance utilising a blindfolding process. Hair et al. (2016) proposed that the Q^2 value should be greater than zero. In this research, the Q^2 values of overall tourist satisfaction and tourist loyalty were 0.152 and 0.305, respectively, which indicated a good fit.

Table 5. *Path coefficients*

Independent to dependent	β	SD	t-values	P	Result
H1: General Tour Attraction→ Overall Tourist Satisfaction	0.097	0.058	1.665	0.096	Not Supported
H2: Heritage Attraction→ Overall Tourist Satisfaction	0.090	0.065	1.386	0.166	Not Supported
H3: Maintenance Factors → Overall Tourist Satisfaction	0.048	0.064	0.753	0.452	Not Supported
H4: Culture Attraction→ Overall Tourist Satisfaction	0.307	0.064	4.783	0.000	Supported
H5: Overall Tourist Satisfaction→ Tourist loyalty	0.695	0.029	23.835	0.000	Supported

The Bootstrapping method was implemented with 5,000 resamples to examine the structural model for this research (Hair et al., 2011). The confidence intervals of the bootstrapping technique are precise (Mooney & Duval, 1993). The outputs of the structural model test are demonstrated in Table 5. The path coefficients of cultural destination attributes on overall tourist satisfaction differ. The outcomes of the model showed that the effect of the general tour attraction (β = 0.097), heritage attraction (β = 0.090), and maintenance factors (β = 0.048) among the destination attributes on overall tourist satisfaction were insignificant. In contrast, the impact of the culture attractions on overall tourist satisfaction (β = 0.307) was significant. Finally, the impact of overall tourist satisfaction on tourist loyalty (β = 0.695) was also significant at the level of 0.01. In summary, based on the structural model test, H1, H2, and H3 were rejected, while H4 and H5 were supported.

Multi-Group Analysis (MGA)

The assessment of variations among the two groups, i.e. first time and repeat visitors, was tested through MGA. First, measurement invariance was analysed before the investigation of MGA for both parties and the measurement invariance of composites (MICOM) was seen as appropriate for PLS-SEM (Henseler et al., 2016). Rasoolimanesh et al. (2017, p.10) proposed three three-stage procedures consisting of a) "*a configural invariance assessment*", (b) "*the establishment of compositional invariance assessment*", and (c) "*an assessment of equal means and variances*". In compliance with MICOM, the partial measurement invariance of first time and repeat visitors was built to compare and infer the MGA analysis for both groups in the PLS-SEM (Table 6; Henseler et al., 2016).

As shown in Table 7, Henseler's MGA and the permutation test were selected (Henseler et al., 2009; Matthews, 2017). These methods provided significant differences for the variables mentioned above across both groups (Rasoolimanesh et al., 2017). Utilising these two procedures, the results of MGA in the permutation test indicate a significant difference in the impact of overall tourist satisfaction on tourist loyalty for first time and repeat tourists. As a threshold, 0.1 was considered for the significance level, which is common for MGA (Rasoolimanesh et al., 2017). Therefore, the overall tourist satisfaction for repeat visitors was much higher than for first timers. Other relationships show no differences in both methods.

DISCUSSION

Destination attributes are crucial dynamics for attracting visitors to a destination (Dann, 1977), although the most appropriate attributes for specific destinations is still matter for discussion among tourism scholars. Among these attributes, previous research pinpointed cultural attractions as being the most important in encouraging potential tourists to visit a destination, and they been found to be a key contributing factor for the economy of that destination (McKercher, 2020). Additionally, it is vital that tourists are satisfied with the cultural attractions of a destination to create loyalty through repeat visits.

To understand the satisfaction levels and loyalty of cultural tourists, it is critical to know which attributes play a major role. The results of the structural model demonstrate that general tour attraction, heritage attraction and maintenance factors among the attributes of cultural destinations have not a significant effect on overall tourist satisfaction. These results were not consistent with the outcomes of work by Huh and Uysal (2004) and Huh et al. (2006). In addition, the extant literature concluded that general tour attraction and maintenance factors (Alegre & Garau, 2010; Biswas et al., 2020; Eusébio & Vieira, 2013; Johann & Ghose, 2018; Kozak, 2002; Ozturk & Gogtas, 2016) and heritage attributes (Ghosh & Sofique, 2012; Kim et al., 2007; Leask, 2010) impact tourist satisfaction. According to those studies, these attributes can be beneficial when creating overall tourist satisfaction. However, the findings of this study were not consistent with previous research.

Table 6. *Results of Invariance Measurement Testing Using Permutation*

Compositional invariance (Correlation = 1)				Partial measurement invariance established	Equal mean assessment			Equal variance assessment			Full measurement Invariance established
Constructs	**Configural Invariance**	**C=1**	**Confidence Interval (CIs)**		**Differences (First-Timer/ Repeater)**	**Confidence Interval (CIs)**	**Equal**	**Differences (First-Timer/ Repeater)**	**Confidence Interval (CIs)**	**Equal**	
Culture Attraction	**Yes**	**0.998**	[0.994, 1.000]	**Yes**	0.069	[-0.164-0.179]	**Yes**	-0.176	[-0.244, 0.240]	**Yes**	**Yes**
General Tour Attraction	**Yes**	**0.970**	[0.965, 1.000]	**Yes**	0.059	[-0.161, 0.158]	**Yes**	-0.003	[-0.174, 0.181]	**Yes**	**Yes**
Heritage Attraction	**Yes**	**0.998**	[0.987, 1.000]	**Yes**	0.160	[-0.159, 0.181]	**Yes**	-0.269	[-0.246, 0.223]	**No**	**No**
Maintenance Factors	**Yes**	**0.966**	[0.965, 1.000]	**Yes**	0.015	[-0.169-0.167]	**Yes**	-0.153	[-0.256, 0.225]	**Yes**	**Yes**
Overall Tourist Satisfaction	**Yes**	**0.999**	[0.999, 1.000]	**Yes**	-0.023	[-0.160, 0.158]	**Yes**	0.047	[-0.244, 0.273]	**Yes**	**Yes**
Tourist Loyalty	**Yes**	**0.999**	[0.995, 1.000]	**Yes**	-0.014	[-0.165, 0.153]	**Yes**	0.217	[-0.288, 0.323]	**Yes**	**Yes**

Table 7. *Estimated structural model: Multi-Group Analysis (PLS-MGA)*

	Path Coefficient		Confidence Interval (95%) Bias Corrected		P-value Difference			
Relationships	**First-time Visitor**	**Repeat Visitor**	**First-time Visitor**	**Repeat Visitor**	**Path Coefficient Difference**	**Henseler's MGA**	**Permutation test**	**Results**
CA→OTS	0.272	0.341	[0.074, 0.463]	[0.186, 0.509]	-0.069	0.592	0.278	**No/No**
GTA→OTS	0.048	0.163	[-0.163, 0.214]	[0.022, 0.300]	-0.115	0.332	0.178	**No/No**
HA→OTS	0.114	0.061	[-0.078, 0.306]	[-0.088, 0.235]	0.053	0.677	0.328	**No/No**
MF→OTS	0.091	0.035	[-0.066, 0.215]	[-0.140, 0.189]	0.056	0.636	0.340	**No/No**
OTS→TL	0.651	0.748	[0.540, 0.730]	[0.679, 0.811]	-0.097	0.089	0.050	**No/Yes**

Note: In "*Henseler's MGA process, a p value lower than 0.05 or greater than 0.95 shows 5% level significant differences between two groups*" (Rasoolimanesh et al., 2017).; CA: Cultural Attraction; GTA: General Tour Attraction; HA: Heritage Attraction; MF: Maintenance Factors; OTS: Overall Tourist Satisfaction; TL: Tourist Loyalty

The cultural attraction of a destination affects overall tourist satisfaction. A study by Huh and Uysal (2004) found that cultural attraction determines the overall satisfaction of tourists with a destination. Specifically, Altunel and Erkut (2015) found that visits to museums, culture villages, historical attractions, galleries, and monuments impact not only the quality of the experience for tourists but also satisfaction with the destination. The study by Huh et al. (2006) indicated that cultural experience determines overall tourist satisfaction. This finding supports previous work conducted at different cultural tourism destinations.

As demonstrated above, most tourism scholars show that tourist satisfaction impacts tourist loyalty (Eusébio & Vieira, 2013; Gursoy et al., 2014; Lee et al., 2011; McDowall, 2010; Suhartanto et al., 2020). In line with these studies, this study found that overall tourist satisfaction with cultural attributes influences tourist loyalty. Therefore, a visitor who is satisfied from the attractions of a destination is expected to make a return visit. Additionally, loyalty to a destination may also occur following recommendations from other visitors.

CONCLUSION AND IMPLICATIONS

Contribution

The overarching aim of this paper was to investigate the influence of cultural destination attributes on overall tourist satisfaction and tourist loyalty. Additionally, this research compared tourist groups according to their frequency of visit, such as first time and repeat visitors. This study is the first to attempt an examination of these roles for Istanbul. Therefore, this research will contribute to the relevant literature on visit frequency. The literature does not include holistic research on cultural attributes, satisfaction and loyalty. Therefore, the model tested in this study will be a useful contribution to the tourism literature.

Theoretical implications

This research has some important implications that may be helpful in future research. First, this study expanded the scope of destination attributes and focused specifically on cultural attributes. Therefore, the results of this study reinforce the message contained in the marketing literature for tourist destinations. For example, this study has shown that cultural attractions have a major impact on tourist satisfaction, and this was supported by extant research. However, other attributes, such as general tour attraction, maintenance factors and heritage attractions do not affect overall tourist satisfaction. Therefore, these findings will assist researchers in formulating models for further research.

Second, this research has some major implications for future studies of visit frequency. This study aimed to compare the differences between path coefficients of first time and repeat visitors. MGA was employed to ascertain the differences between both groups. According to this analysis, it was concluded that only one difference in the impact of overall tourist satisfaction on tourist loyalty occurred among the groups, in accordance with the permutation test. This finding using MGA will aid scholars when they compare their research results.

Managerial implications

This research also provides a broad outline for those managing and marketing tourist destinations of which attributes are crucial for tourist satisfaction and the future behavioural intentions of the visitor. Cultural attractions are key attributes for destinations in terms of encouraging tourists to visit. To increase the satisfaction of international travellers visiting Istanbul, and tourist loyalty to it as a cultural destination, this research suggests that more cultural attractions should be provided, including historic buildings, monuments, culture villages, galleries, and museums. Marketing teams can then use these attractions when promoting the destination on various social media or promotional platforms. Fundamentally, all cultural attributes of a destination are critical and necessary to ensure tourist satisfaction and to create tourist loyalty. Based on the findings of this study, this segment of the tourism market should be targeted though the promotion of cultural attractions. Those involved in the tourism sector should make themselves aware of the specific attractions that motivate first-time visitors to become repeat visitors and they should focus on preserving and improving these attributes.

Limitations and future research lines

This research was conducted in Istanbul, so the findings are specific to this destination. Therefore, similar research could be conducted in other tourism settings. The literature shows that the influence of destination attributes on the image of a destination (Chahal & Devi, 2015), and on the motivation of visitors to travel to these destinations (Levitt et al., 2017), is well known. Additionally, future studies can illuminate the role of cultural destination attributes on the variables referred to in this study, which adopted a quantitative methodological approach. Further research could include qualitative interviews with tourists visiting cultural destinations to determine the main cultural attributes of those destinations. This research was conducted prior to the outbreak of COVID-19. However, some potential future tourists visited several cultural and heritage sites through virtual reality technology during the pandemic (Atsız, 2021). Therefore, this study suggests that further research is conducted on the satisfaction levels of these virtual visitors to cultural attractions and how this experience may impact their future intentions to physically visit the city. Finally, cultural tourism destinations are essential to maintain the existing tourism environment. As such, an examination of the cultural attributes that determine tourist satisfaction and loyalty is strongly recommended.

ACKNOWLEDGMENT

This paper is a part of first author’s doctoral dissertation thesis entitled “Tourists’ length of stay in cultural destination.”

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DOI: 10.30519/ahtr.829292

Advances in Hospitality and Tourism Research (AHTR) 2021
An International Journal of Akdeniz University Tourism Faculty Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online) 292-312
Webpage: http://www.ahtrjournal.org/

DESTINATION IMAGE IMPACTS OF WUHAN POST-PANDEMIC ON CHINA'S FOREIGN STUDENTS' BEHAVIOURAL INTENTION

Febriana RIESTYANINGRUM [1]
School of Tourism Management, Zhengzhou University, China
ORCID: 0000-0002-4257-8922

Arash PASHAEV
School of Tourism Management, Zhengzhou University, China
ORCID: 0000-0002-3005-6879

Alessio SIMONE
School of Tourism Management, Zhengzhou University, China
ORCID: 0000-0002-5409-4706

Sem SISAMUTH
School of Tourism Management, Zhengzhou University, China
ORCID: 0000-0002-6965-6337

ABSTRACT

Wuhan was discouraged over time as a tourist destination after the COVID-19 pandemic spread around the world. This unique and unexpected situation, particularly affected foreign students' behaviour, urging them to avoid the well-known Chinese tourist spot, notoriety recently tainted by the spread of the epidemic around the world. The objective of this research is to determine if there are any direct and indirect impacts of destination image on behavioural intention through attitude. Based on an online survey of 385 participants were analysed using path analysis through a nonprobability, convenience-sampling approach. Findings suggest that: (1) destination image is directly associated with attitude; (2) attitude is directly associated with behavioural intention; (3) destination image is directly associated with behavioural intention; (4) destination image is indirectly associated with behavioural intention through attitude. The outcome of this research will therefore a contribution to decision-making process managers of tourism destinations so that they can manage their business in the best possible way to accommodate the post-pandemic situation.

Article History
Received 21 November 2020
Revised 24 March 2021
Accepted 1 April 2021
Published online 2 July 2021

Keywords
Impact COVID-19
Wuhan
China's foreign student
destination image
attitude
behavioural intention

[1] Address correspondence to Febriana Riestyaningrum, School of Tourism Management, Zhengzhou University, China. E-mail: riestyaningrumfebriana@gmail.com

INTRODUCTION

At the end of 2019 in Wuhan City, Hebei province, China has indicated for the first time the novel coronavirus or commonly called the COVID-19. The virus has spread rapidly across China and around the world. The public is fearful by this outbreak and has a significant impact on lower demand in the travel and tourism industry (Bakar & Rosbi, 2020; Li et al., 2020). COVID-19 is not a pandemic that we have experienced before; it has cluttered all our economic systems, supply chain infrastructure, and opportunities to travel (Nicola et al., 2020). Many sectors suffered from quarantine, lockdown, entry bans, and border closures (Goodell, 2020), and it has created an absolute shift of demand as consumers are more focused on sanitary items. Statistics show that the loss incurred due to lock down and travel restrictions are prolonging day by day. Following the first outbreak news, UNWTO (2020) estimated that the number of international tourists would drop by 60-80%. Similarly, China's Tourism Academy estimated that tourist numbers will be reduced by 932 million in 2020, which means a 56% decrease compared with 2019 in the first quarter, and a loss of 1.18 trillion Yuan tourism-driven economic revenues (Huaxia, 2020).

As the city where the COVID-19 pandemic began, Wuhan has largely been avoided as a tourist destination after lifting travel restrictions on April 8, 2020. The Centre for Disease Control and Prevention recommends travellers avoiding non-essential travel to China. On the other hand, Wuhan is among the top destination wish list in China according to a survey conducted by the Chinese Tourism Academy, from a poll of 15.000 people (Thiessen, 2020). The above argument underlies this research gap to develop the existing problem statement. Furthermore, foreign students study in China have the potential to become permanent tourists every year, or indirectly they are ambassadors to promote Chinese tourism to their country. According to a 2018 data report on overseas students in China, there were a total of 492.185 students (Ministry of Education, 2019). If the students post about tourist destination in their own social media and gives a good review, this will indirectly affect other people's psychology to have the intention to visit China. There is no doubt that it has a profound effect on tourist consumption and behaviour (Wen et al., 2020). The behaviour of tourists plays a role in how travellers decide to visit a tourism destination, and according to Ismayanti (2010), every tourist has a concept of buying behaviour with unique purchasing decisions because the tour is a tangible return on investment, closely related to income and expenses, not booked instantly (except for business travellers), and involves decision planning.

Considering if the destination image is playing an important role in tourists' behavioural intention, researchers are encouraged to find out if creating a destination image is significant for the future of Wuhan's tourism in the international market. According to Beerli and Martin (2004), who created a conceptual model for the formation of destination pictures, the overall image of the destination is formed by cognitive and affective components. Attitude towards destination attributes is evaluated as perceived facilitators and is considered to hinder the accommodation of situational constraints that fulfil specific motives for travel (Um & Crompton, 1990). Ajzen (1991) examined that attitude shows how a person responds to objects that are liked or disliked. Gnoth (2002) adds that understanding tourist motivation and behaviour is important, attitude is an important construct for it. According to the Jalilvand et al.'s (2012) findings, the decision to travel to a destination is based on a tourist's attitude. Cognitive, affective, and conative (behavioural) components underlie tourist attitudes.

Tourist destination preference determines visit intention, which can be seen as tourist attitudes, one of the most widely used variables for predicting consumer behaviour is (Woodside & Lysonski, 1989; Um & Crompton, 1990). Performance is more likely to be a general rule when there is a strong desire to engage in the behaviour. However, it is noted that a behavioural intention can only be manifested in behaviour if the behaviour is under the direction of the will. That is, if people can at their will to do the desired behaviour (Ajzen, 1991). Woodside and Lysonski (1989) stated that this is by the general model of choice of tourist destinations, where the choice of actual destinations is influenced by the intention and situational variables to visit directly. This model also confirms that behavioural intention is a mediating variable related to attitudes toward behaviour choice. Apart from attitude, the destination image is also an important predictor of behavioural intention. Sheth (2020) explained if some experts believe that even if the transmission of this virus stopped by 2021, the tourism industry will not come back to the normal stage before 2024. Opposite with his opinion, Wahyuni & Kusumaningrum's (2020) study results showed that after the pandemic over, the intention of travel intention is high. To attract tourists once the pandemic is over, every destination should be concerned with the service and facilities of the destination itself.

According to the limited study that has been done in the specific concept of COVID-19, this research objective is to determine any direct or indirect influence among the destination image, attitude, and behavioural intention. Besides, this research also intended to find out observation markets and assist tourism businesses to prepare for the healing process in the tourism industry. This research used a market survey to learn about the demands and needs of tourists among international students, and to understand the market situation in the context of helping tourism departments and companies in Wuhan to prepare themselves for the recovery of the tourism market after an outbreak along to provide better services in various aspects.

LITERATURE REVIEW

Destination image

Ratkai (2004) observed if the concept of destination image has evolved over time, it still lacks a clear, operational definition. Beerli and Martin (2004) designed a conceptual model for the components of an overall destination image that involved cognitive and affective components. Where, two important elements of the overall destination image; (a) Cognitive image relates to resources, physical attractions, perceptions, evaluation of destination attributes, and individual knowledge, (b) Affective image refers to individual feelings generated by goals and emotions. Individual knowledge or beliefs regarding destination attributes refer to cognitive components, these attributes are described as transparency, recreational facilities, weather, attitudes of local communities, landscapes, and affective components. This refers to individual feelings about the destination (Gartner, 1994; Baloglu & McCleary, 1999), such as happy, relaxed, gloomy or sleepy. The relationship between affective and cognitive images exists although they are different. Beerli & Martin (2004) claimed that the overall image is produced by combining these two elements, associated with a positive or negative evaluation of a destination.

Attitude

Um & Crompton (1990) in the study of marketing and consumer behaviour, defined attitude as a prediction of customer choice. In each group, beneficial attitudes result from behavioural beliefs; subjective norms or social pressure resulting from normative beliefs; perceived behavioural control results from control beliefs, and the difficulty or perceived ease of doing behaviour (Ajzen, 1991). Apart from various types of planned behaviour, individual intentions play an integral role that may skew a person's behaviour in a particular direction. Jalilvand et al. (2012) demonstrate how a tourist's attitude influences their decision to visit a destination.

Furthermore, the more positive the attitude on the destination, the willingness to visit is getting higher. In line with the study by Yoon & Uysal (2005), internal attitudes can affect tourists to visit destination. Cognitive, affective, and conative (behavioural) components underlie tourist attitudes.

Behavioural intentions

The definition of behavioural intention according to Moutinho (1987) is behaviour before action depending on the differences associated with evaluative beliefs, a set of normative beliefs conveyed by social factors, and situational factors. The willingness of tourists to participate in word-of-mouth (WOM) communication is the concept of behavioural intentions (Andreassen & Lindestad, 1988). During the visit, pre-visit, and post-visit stage, the impact of tourists' behaviour on their affective and cognitive destination image has been investigated by the researchers in the terms of the consequences of destination image (Tasci & Gartner, 2007). Additionally, current research has found a positive correlation among loyalty, destination image and tourist satisfaction. (Lee et al., 2005; Assaker et al., 2011). Furthermore, behavioural intention is influenced by functional and psychological variables that influence their behaviour towards a destination. Psychology can be shown by emotions, which indicate a strong emotional (Goossens, 2000; Hosany & Prayag, 2013). Furthermore, psychological and functional factors frequently impact its behaviour toward a goal, resulting in travel intention.

The relationship between destination image and attitude

The is a correlation between the destination image, future attitudes and the likelihood of guests who have a favourable impression of returning destination and promoting it to others (Lucio et al., 2006; Chen & Tsai, 2007). The intangible character of tourism, as well as the fact that holiday purchases and consumption are typically separated both geographically and temporally, likely to affect attitude development and modification at each stage of the tourist decision-making process. (Litvin & Ng Sok Ling, 2001; Chen & Funk, 2010). How people evaluate an entity and form an attitude is an understanding of cognitive responses (Jalilvand et al., 2012; Tseng et al., 2015). Meanwhile, the cognitive component is formed by attitudes and information obtained by having knowledge or perception (Bilim & Yüksel, 2008; Amaro & Duarte, 2015; Kim & Stepchenkova, 2015). For the reasons above, this study predicts if there is an influence between destination images, attitude, and behavioural intentions. Therefore, the following hypothesis is proposed:

H1. *Destination image is directly associated with attitude.*

The relationship between attitude and behavioural intention

According to the theory of planned behaviour, three major factors influence an individual's behaviour intentions: subjective norms, attitude, and a sense of behavioural control (Ajzen, 1991). External behaviour also affects the intention of an attitude (Ajzen, 1991; Lee, 2007). Ajzen (2001) states that the more preferred the attitude toward the behaviour, the higher the individual's intention to do that behaviour. Intention is considered to impact motivational variables that influence behaviour; it demonstrates how far individuals are prepared to go in order to succeed, and how much work they are planning to put in to engage in particular behaviours (Ajzen, 1991). Attitudes have an impact on whether a possible destination is included as a result of the generated set and on their way to their final destination (Um & Crompton, 1990). Tourist attitudes, according to Lee (2009), have an impact on future tourist behaviour. Lam & Cathy (2004) investigated the mainland Chinese tourists to Hong Kong. Their findings reveal a connection between travel intention, attitude and perceived behavioural control. However, attitude is an essential influence on behavioural intentions as discussed by many previous researchers (Cheng et al., 2006). These findings, therefore, formulated an attitude-behaviour intention connection. Hence, the following hypotheses were drawn:

H2. *Attitude is directly associated with behavioural intentions.*

The relationship between destination image and behavioural intention

The tourism literature has established the connection between destination image and behavioural intention (Fakeye & Crompton, 1991; Bigné et al., 2001; Lee et al., 2005; Bao et al., 2008). As previous researchers examined the connection between the destination image and behavioural, it seems that the consensus does not exist for this type of relationship in the literature (i.e., between direct and indirect relationships). Besides, behavioural intention is directly influenced by the destination image (Court & Lupton, 1997; Yang et al., 2009). Tourism related attitudes and behaviour are influenced by the image of a destination, by strengthening or affirming existing ones, creating new ones, or changing them (Kim & Richardson, 2003). The perception of destination image also affects tourists' attitudes towards destinations (Woomi & Soocheong, 2008). Jalilvand et al. (2012) stated that destination image and tourist attitudes have a significant effect on travel intentions. Ajzen (2001) argued that the attitude and intention to travel had a significant relationship while Um & Crompton (1990) also argues that a positive attitude makes tourists act stronger and have a high desire to traveling when tourists' attitude dictate the prospective destination. They argue that tourists' attitudes are a good predictor of tourists' decision to travel to a destination. Previous research results that have been discussed indicate a relationship between destination image, attitude, and behavioural intentions. Following are some hypothesis formulations based on the preceding discussion:

H$_3$. *Destination image is directly associated with behavioural intentions.*
H$_4$. *Attitude mediates the indirect association between destination image and behavioural intentions.*

METHODOLOGY

Research design

The research design which is conducted to create an understanding of the flow of this research, is a plan prepared by the researcher to answer research questions (Saunders et al., 2012; Churchill, 1995). As a data collecting approach, quantitative research is used in this study, as Saunders et al. (2012) states the relationship between variables shown in numeric with statistical techniques is the goal of quantitative research. This study can be considered using cross-sectional studies that are the most common research design used by researchers (Olsen & St George, 2004) because the data is gathered just once. Bryman and Bell (2011) summarizes that due to time, money, and access limitations, they don't need practice for all populations, and therefore a representative sample should be selected. In the previous section, China's foreign students who were selected as a population were discussed. Participants have to fulfil two distinct requirements: (i) above the age of 18 (ii) foreign students who study in Chinese universities. Non-probability purposive random sampling techniques were selected to gather the respondents. The sample size was chosen to reflect a significant number of people (Collis & Hussey, 2009). The questionnaire was distributed via social media as WeChat, QQ, and Weibo to responders in order to determine the sample size. The sample size for the confidence interval method was calculated according to Burns and Bush (1995). The 95 percent confidence level and 95 percent accuracy are calculated using the following formulae

$$n = \frac{z^2(pq)}{e^2} = \frac{1.95^2(0.5\ x\ 0.5)}{0.05^2} = 385 \qquad (3.1)$$

Where z is the standard error for the selected degree of confidence (95%); p is (50%) of the population’s estimated variability; q ¼ 1Àp and e the 75% tolerable error (95% accuracy). To create an understanding of the research, figure 1 illustrates the research model, there are four hypotheses based on the theory that has been discussed in the previous section.

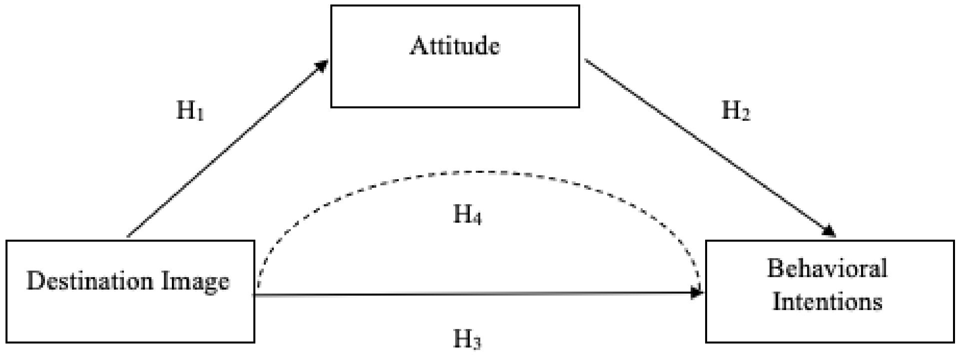

Figure 1. *The research model*

Questionnaire development

This study employed a questionnaire to gather data in order to fulfil the study's objectives. Data collecting from big samples is summarized by Saunders et al. (2012), who claim that questionnaires are the most appropriate data collection techniques. In the interest to create instrument measurements, researchers affect the validity and reliability of the data gathered. As a result, Bryman & Bell (2011) recommend utilizing items that have already been evaluated by other researchers. The authors tweaked the current scale to fit the research objectives. The questionnaire has been divided into four section. The first section contains information on the respondents' demographics. The items in the second part are used to measure the "destination image" which were assessed by twenty-four items adapted from the previous studies (respectively) (Russell, 1980; Lin et al., 2007; Smith et al., 2015; Akgün et al., 2019). The third part is designated for "attitude", the five questions were derived from Li et al (2020) and Chin et al. (2015). The last part is planned for measuring “behavioural intention” which were three items, adapted from Jalilvand et al. (2012). Here, all variables were emphasized in constructed questionnaires based on a five-point Likert scale (Bryman & Bell, 2011) which includes a total of 32 items. Where strongly disagrees is represented by a scale 1, disagree is indicated by scale 2, neutral is shown with a scale 3, agrees for scale 4, and strongly agrees with scale 5. Data is gathered from September until October 2020.

Data analysis

Descriptive analyses describe the characteristics of respondents and the mean values of each item. The measurement model in application exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) can be used as the characteristic sample factor in the data set and targeted for the model that has not been generalized (Olorunniwo et al., 2006). In the structure, the model element of one model survives and the second model is needed to examine the instrument dimensionally (Chin & Todd, 1995). Therefore, samples are tested with statistical approaches (EFA and CFA). In this study EFA is regarded less robust than CFA, a random sample of 50 samples is chosen at random for assessment.

Afterwards, a sample was used for EFA and the research model was tested on the larger sample using Structure Equation Model (SEM) analysis.

RESULTS

Descriptive of the respondent's characteristics

The field study provided data from 385 participants from 62 university students. Table 1 shows the demographic characteristics of the respondents.

Table 1. *Respondent's Profile*

	Distribution of Respondents
Gender	Female: 52.5%; Male: 47.5%
Age	18-30: 54.8%; 31-45: 45.2%
Education	Bachelor's Degree: 40%; Master Degree: 33%; PhD: 27%
Income	1000-2500¥: 39.5%; 2500-4500¥: 47%; Above 4500¥: 13.5%
Previous experience	Never: 50.8%; 1 time: 24.1%; 2 times 15.5%; 3 or more: 9.6%

Table 1 shows that 52.5% of the participants are females, and 47.5% are males. The majority of respondents (54.8%) fall in the category of 18-30, after that 45.2% between the ages of 31-45. A bachelor's degree is the highest level of education with 40%, next to a master's level with 33% and PhD level with 27%. In terms of income group of respondents, out of 385 respondents, 47% of respondents earn 2500-4500 ¥ per month, 39.5% of respondents earn 1000-2500 ¥ per month, and the rest of it, 13.5% of respondents earn above 4500 ¥ per month. Considering the previous experience, as shown in the Table 1, 50.8% of the participants have never been to Wuhan, while 24.1% of the respondents have gone once. Moreover, 15.5% of participants have gone twice and 9.6% of them have been to Wuhan three times or more.

Table 2. *Results of the Measurement Model*

Item	EFA Loading	CFA Loading	Variance %	Mean	α	AVE	CR
DI1	0.66	0.81	17.42	24.28	0.70	0.72	0.96
DI2	0.79	0.78					
DI3	0.89	0.79					
DI4	0.85	0.77					
DI5	0.69	0.82					
DI6	0.54	0.77					
DI7	0.65	0.76					
DI8	0.61	0.68					
DI9	0.89	0.75					
DI10	0.85	0.76					
DI11	0.81	0.79					
DI12	0.76	0.72					
DI13	0.71	0.73					
DI14	0.69	0.80					
DI15	0.66	0.63					
DI16	0.61	0.73					
DI17	0.96	0.70					
DI18	0.87	0.73					
DI19	0.50	0.68					
DI20	0.75	0.83					
DI21	0.75	0.78					
DI22	0.52	0.75					
DI23	0.57	0.91					
DI24	0.75	0.77					
A1	0.90	0.85	11.307	37.58	0.70	0.93	0.97
A2	0.97	0.79					
A3	0.97	0.83					
A4	0.95	0.72					
A5	0.90	0.75					
BI1	0.97	0.91	13.558	21.88	0.75	0.96	0.97
BI2	0.98	0.86					
BI3	0.96	0.84					

Note: DI: Destination Image, A: Attitude, BI: Behavioural Intention

Measure Analysis

EFA was used to measure the dimensionality of customer behavior. A maximum likelihood estimator with varimax rotation is used. Thereafter, Table 2 shows the highest indicators for variance explained is 17.42%, and the value of factor loading ranges between 0.52 to 0.98, with a threshold greater than 0.4 as suggested by Hair et al. (2010). The range for Cronbach's Alpha of the three components is around 0.75 to 0.84, it is considered acceptable (Nunnally & Bernstein, 1994). The three elements label as destination image, attitude, and behaviour intention. Table 2 shows that the composite reliability of each component ranged from 0.96-0.97, which is higher than the suggested threshold (CR> 0.7) (Hair et al., 2017). The sample adequacy statistic calculated by Kaiser Meyer-Olkin (KMO) was 0.70, and Bartlett's statistic of sphericity was significant at $p < 0.01$ (x^2 / df = 1416.181/161), showing that the data in the sample was regularly distributed and suitable for factor analysis.

According to the EFA output, to measure a larger sample was conducted with CFA using SPSS-AMOS 17.0. In this study, determining a goodness of fit, validity, and reliability was assessed for all constructs. Several steps were adopted to evaluate degrees for the determinant model according to data. CFA was shown if the overall fits of the value design acceptable (χ^2 = 1312.23, df = 387, CMIN/df = 3.4, RMSEA = 0.062, CFI = 0.93, GFI = 0.89, AGFI = 0.83, NNFI = 0.93, p = 0.001), based on Hair et al. (2010). The average amount of variance extracted (AVE) and factor loadings providing substantially to determine the develop validity of structure level and indicators. Fornell & Larcker (1981) state if the AVE value is 0.50 or higher, it can be considered as an acceptable measurement. Furthermore, the measures showed a validation following recommended value. Fornell & Larcker (1981) claim that to determine the validation discriminant compared to AVE values to correlations among constructs, and the findings showed that all respective constructs were upheld (see Table 3). The values of standard deviation (SD) extended from 2.379 to 7.665, and mean values ranged from 10.72 to 86.93. The interactor correlation analysis for all variables is shown in Table 3. They were all less than 0.85 and sig. value ($p < 0.01$). Each component's squared correlations were all less than the AVE value, suggesting good discriminant validity.

Table 3. *Descriptive Statistics and Correlation Matrix*

Factors	Mean	SD	1	2	3
Destination Image	86.93	7.665	-		
Attitude	18.59	2.979	0.053*	-	
Behavioural Intentions	10.72	2.379	0.102*	0.804*	-

* p-value < 0.01

Hypothesis Testing

SEM (maximum likelihood technique) was employed to evaluate the hypothesized structural connections between the study's three components once the measurement model's validity and partial invariance were established. The findings model fit with the structural model (χ^2 = 852.7, df = 176, CMIN/df = 2.595, RMSEA = 0.06, AGFI= 0.91, CFI= 0.90, GFI= 0.95, NFI= 0.93, p= 0.001). All model fit index values were acceptable. Table 4 shows that there was a statistically significant relationship between three constructs ($p<0.05$), lending support for hypotheses 1, 2, and 3.

Regression weights (β) were used to proven hypotheses 1-3 that are presented in Table 4. Hypothesis 1 claimed there would be direct effect between destination image and attitude; this is supported (β= 0.53, t= 33.623, $p < 0.01$). Hypothesis 2 was that attitude would have direct effect on behavioural intention; this is supported by the studies' findings (β= 0.86, t= 33.624, $p < 0.01$). Hypothesis 3 asserted that destination image would have direct impact on behavioural intention and the result provided support for H3 (β= 0.10, t= 2.185, $p < 0.05$).

Table 4. *Result of hypothesis testing*

Hypothesis	Relationships	T-value	P-value	Path	SE	Results
H1	DI → A	33.62	0.001	0.864	0.07	Supported
H2	A → BI	33.62	0.001	0.861	0.10	Supported
H3	DI → BI	2.18	0.003	0.056	0.12	Supported

Approach given by Preacher and Hayes (2008) was employed in this study to test hypothesis 4, and the SPSS PROCESS macro given by Hayes (2012) was utilized to execute the investigation. Table 5 shows the findings of this study, including the indirect impact value for each model and confidence intervals (95%) for evaluating the significant (signalled with **) when 0 falls outside the confidence interval (Preacher & Hayes, 2008). Attitude was used as the mediation variable, the mediation was not significant (indirect effect = .0298, 95% CI: -.0183, .0596 with 5.000 resamples). As a result, hypothesis 4 was rejected.

Table 5. *Indirect Effects of Destination Image on Behavioural Intention through Attitude*

Mediation	Bootstrapping (5000 samples)		
	Indirect effect of the double mediation	Percentile 95% bias corrected and accelerated CIs	
		Lower	Upper
Attitude	.0298**	-.0183	.0596

DISCUSSION

Discussion and implementations

The primary contribution of this contextual study is a thorough theoretical model that examines the impact of destination image on behaviour intention through attitude. This study assists to comprehend the relation between destination image, attitude, and behavioural intention from a theoretical perspective. This research adds to the existing literature of contributions in four ways.

First, this research demonstrates empirically the destination image is directly associated with attitude. These results indicate a positive signal from a foreign student as a potential tourist that will visit Wuhan in the future. In line with previous studies, destination image positively affects tourist attitude (Jalilvand et al., 2012). Here, it appears that if foreign students in China will have positive attitude and intend on going on holiday to Wuhan after this epidemic is over. Hultman et al. (2015) summarize that a positive city image can determine tourists' attitudes. Moreover, the results of this study are good news for tourism marketers in Wuhan to promote the destination in order to attract tourists. The destination image is one of the most important aspects in the worldwide market for the future of Wuhan tourism. The important thing that becomes the main consideration for visiting one destination for the tourists is the image of the destination an image of the city itself. Lopes (2011) believes that attitude and city image are interrelated, likewise the attitude towards city image (Han et al., 2009; Lita et al., 2014). Tourists that visit Wuhan and have a pleasant experience are more likely to suggest the city's landmarks, delicious cuisines, historical attractions, and beautiful scenery as a positive reaction.

Second, this study mentioned that attitude is directly associated with behavioural intention. According to recent study, travellers with a good attitude are more likely to make travel arrangements to a destination. (Chin et al., 2015; Amalia et al., 2018; Gosal et al., 2020). The findings in this study resulted in a relationship between attitudes and behavioural intention is consistent with previous studies. Furthermore, marketing of the destination should apply practical implications to increase intention to visit Wuhan. Based on attitude, destination management must develop and implement marketing strategies to influence tourist travel behaviour. The attitude of tourists is dependent on each other expectations about the destination for those tourists. In other words, tourists have different expectations and attitudes towards a destination. As discussed above, to create a good attitude to travel needs inducement from host tourism sites which means they should prepare good products and services to attract tourists to come. For the long term, to trigger revisit intention attitude, host tourism planners should further keep in mind to satisfy customer expectations. Previous researchers agreed that attitude significantly influences on behavioural intention (Cheng et al., 2006; Liu & Yu, 2012). Furthermore, the tourist's attitude is close to the emotion, feeling, and mood of tourists towards a destination.

Third, this research shows that the destination image has a direct association with behavioural intention. Wuhan, as a host tourism city, should make an interesting package to attract a tourist to recovery tourism post-pandemic; in this part, the destination management has an important role to promote the products to target markets. Tasci and Gartner (2007) believed promotional information from these destinations affects the destination image. These findings support previous studies that shows a favourable relationship between destination image and behavioural intention (Lopes, 2011; Molinillo et al., 2018). The toughest challenges in maintaining the image of a destination are external threats such as disasters, terrorists, and pandemics. Wuhan, as a destination, will take time to recover and restore the trust of tourists. As an important role in attracting tourists to travel, negative image of destinations also has a potential high threat. Besides threats, the results of this study state that Wuhan has a good attraction for foreign students in addition to its natural beauty that has been recognized by tourists. However, a good destination image does not only require the role of government, tourism management, and local communities but also responses from the experiences of visiting tourists. Therefore, each stakeholder must carry out its obligations well, and support each other to achieve the common goal of increasing tourist arrivals and ensuring their positive experiences.

Finally, this research discovered that attitude plays a role in mediating the indirect relationship between destination image and behavioural intentions. Although there is an indirect relationship between destination image and behavioural intention, which is mediated by attitude, brand image and tourist attitude have been proven to have a significant effect on travel intentions in previous research (Jalilvand et al., 2012). In line with them, several researchers (Muniz & O'Guinn, 2001; Woomi & Soocheong, 2008; Jansen et al., 2009; Hanna et al., 2011; Lien et al., 2015) reporting if there is a significant impact between brand image and tourist attitudes toward tourist decision and purchase intentions. The findings have some implications in practical importance. Marketing destinations may involve objectively printing the image of the destination and make improvements in their marketing services. In addition, management needs a good understanding of what influences the tourist decision-making process. The attitude increases the behavioural intention of foreign students in China, builds a good image of Wuhan and decreases promotion expenses. Furthermore, the destination image influences travellers' decisions while picking a vacation spot, and in general (Bigné et al., 2001). For benefitting from the image and to develop successful tourism destination, management of destinations should improve the image and facilities to create trust, satisfaction, and intention to revisit in visitors. Understanding tourists’ needs, attitudes, and archiving their expectations are key to commercial success. As successful destinations depend on tourists' intention and willingness to visit, effort to build promotion about the destination and effort to archive tourists' expectations and needs will bring a positive impact in the future.

Limitations and recommendations for future research

Sufficient theoretical and practical contributions can help overcome the limitations. Indication of limitations is found in sampling techniques to generalize large populations over small samples. Another limitation of this study is that it was conducted in only one location (Wuhan) is used as a destination, and with a low budget available. Longitudinal studies in other destinations may have a different magnitude of the relationship because tourism development and tourism dependence on a destination is different. Hence, the result of this generalization, if it is to be applied to other destinations, requires modification or a need for caution. First of all, because the restricted number of respondents make this research limited. Further study should be done on a wider scale and with a larger sample size. Similarly, tourism in a post-pandemic, further studies of destination image on travel intention through attitude may also be important issue to examine for other researchers. This research suggests that each city or country must start promotional campaigns in overseas markets to re-create its national branding, expected to restore the confidence of tourists in travel overseas. This study provides an important contribution to the destination (Wuhan), but this concept requires further investigation. However, the results cannot be generalized in other destinations because Wuhan was the only research site. Last but not least, this study collects self-managed data using closed questionnaires that are distributed through an online platform. Different results can be achieved by future studies that have a more diversified sample profile.

CONCLUSION

Several findings about destination image, attitude, and behavioural intention are discussed in this research. According to the findings, destination image is directly associated with attitude and behavioural intention, and attitude directly associated with behavioural intention.

Furthermore, through attitude, the destination image is indirect with behavioural intention. In the case of Wuhan tourism, destination management should think about how to promote the city to attract visitors. According to the findings of our research, Wuhan tourism may begin preparing for a spike in visitors once the restrictions are lifted, and Wuhan has been deemed ready to accommodate international tourists. The key conclusions are that Wuhan should work to create a positive destination image in order to entice tourists to visit, understand tourists' attitudes, and form a trustworthy connection with the tourism sector. It must take quick steps to provide professional training and development. Wuhan has to improve the quality of the working environment, provide proper planning, execute effective personnel planning, and provide job descriptions for all stages of the service industry, including hotels, restaurants, travel agents, and destinations in Wuhan, in order to reduce attrition. As a result, in the case of Wuhan tourism, the destination image must be greatly improved in order to improve tourist attitudes, which will, in turn, increase tourist intention to visit Wuhan.

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DOI: 10.30519/ahtr.784131

Advances in Hospitality and Tourism Research (AHTR) 2021
An International Journal of Akdeniz University Tourism Faculty Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online) 313-340
Webpage: http://www.ahtrjournal.org/

THE EFFECT OF BROCHURE AND VIRTUAL REALITY GOGGLES ON PURCHASING INTENTION IN DESTINATION MARKETING

İlker KILIÇ

Akdağmadeni Vocational School of Higher Education, Yozgat Bozok University, Turkey

ORCID: 0000-0003-0617-2260

Ali DOĞANTEKİN [1]

Sorgun Vocational School of Higher Education, Yozgat Bozok University, Turkey

ORCID: 0000-0003-3081-4884

Yaşar SARI

Department of Tourism Management, Tourism Faculty, Eskişehir Osmangazi University, Turkey

ORCID: 0000-0001-8841-4424

ABSTRACT

The aim of this research is to reveal the effects of brochures and virtual reality, which are among the promotional tools in destination marketing, on the purchasing intention and compare the results of these two promotional tools. The theoretical background of the research was established within the framework of the Theory of Planned Behavior (TPB). 120 potential tourists living in Eskişehir who intend to go on holiday, have been reached during the implementation phase of the research. Two questionnaires, i.e. the brochure involvement and virtual reality involvement questionnaires, were obtained from the participants. The data were analyzed through Smart PLS v.3.2.7. Research findings demonstrate that virtual reality is more successful in the perceived service quality and product attitude development. However, the effect of the brochure on the development of advertising attitudes is higher. Some suggestions are presented in line with the results of the research.

Article History

Received 22 October 2020

Revised 1 May 2021

Accepted 1 May 2021

Published online 11 May 2021

Keywords

destination marketing

virtual reality

behavioral intention

brochure

[1] Address correspondence to Ali Doğantekin (PhD), Department of Hotel, Restaurant and Catering Services, Sorgun Vocational School of Higher Education, Yozgat Bozok University, Turkey. E-mail: ali.dogantekin@yobu.edu.tr

INTRODUCTION

The synchronous development of technology and tourism has facilitated rapid access to information related to the tourism product, thus paving the way for the development process in information technologies. Accordingly, information communication technologies (ICT) have also caused changes in demand and supply. High demand for flexible, personalized options and quality of information has also personalized the entertainment and tourism behavior as a result of the increased use of ICT (Bethapudi, 2013). ICT offers a variety of tools for tourism marketing and management. This technology supports the interaction between the tourism businesses and the consumers, and thus redesigns the entire process of developing, managing, and marketing of the tourism products and destinations (Buhalis & O'Connor, 2005).

In recent years, the phenomenon of digitalization has become indispensable for tourism and activated the tourism sector. Tourism destinations are now marketed more efficiently, and promotions are more dynamic thanks to the digital facilities. The use of digital tools in marketing and promotion has increased the destination management as a result of the increased competition in the tourism sector (Rainisto, 2003). Destination marketing uses visual, audio and printed materials and technology based on different techniques. One of these marketing techniques is use of virtual reality (VR). Virtual reality is considered one of the most outstanding technologies. The basic idea is that the user is completely immersed in a virtual world created with a computer (Fritz et al., 2005).

The concept of virtual reality can be used as a tool for reducing the potential negative effects of the tourism industry on the environment and the relevant threats, or as a marketing tool to increase the attractiveness of a target (Cheong, 1995). The tourists can experience anything to eat or drink in a destination and get information about the touristic product from where they are located through the technology of reality that has increased the service quality and spatial features with virtual reality (Sarı & Kozak, 2005). The applications resulting from the rapid change in technology and the effect on the demand show the importance of virtual reality applications in the tourism sector for tourists who want to access information about the product as well as the experience before purchasing.

In the previous studies, the effect of virtual reality on destination marketing (Arat & Baltacıoğlu, 2016) and its effect on tourism (Özgüneş & Bozok, 2017) have been researched. The literature review shows that the number of researches that measure the effect of product promotion materials on purchasing intent is very low. Both conceptual and empirical studies on virtual reality application have been conducted (Yung & Khoo-Lattimore, 2019). However, different promotional materials are compared (Wan et al., 2007; Jung et al., 2016) and are theory-based in very few studies (Haven & Botterill, 2003; Singh & Lee, 2009; Huang et al., 2010, 2013a, 2013b, 2016; Lee & Jeong, 2012; Dueholm & Smed, 2014; Han et al., 2014; Jung et al., 2015). Although academic studies are carried out to understand tourism and internet-based innovations, theory-based research is required to gain a solid knowledge about the user experience and consumer behavior in the virtual world, in the context of tourism (Huang et al., 2016). Additionally, according to Wei et al. (2019), the concept of virtual reality positively affects the theme park experience, recommendation, and intentions to visit again. According to Huang et al. (2012), virtual experience positively affects the behavioral intentions of tourists. According to Griffin et al. (2017), virtual reality applications increase the desire of individuals to learn more about destinations.

Therefore, the purpose of this research, which is based on theory of TPB, is to reveal the effects of a brochure and virtual reality on purchasing intention in destination marketing and to compare the relevant results. It is thought that this research will contribute to the relevant literature in four ways. First, it contributes to the determination of the antecedents of the behavioral intention to purchase a holiday. The second contribution is to reveal how brochure and virtual reality affect behavioral intention. The third contribution is pioneering in addressing the virtual reality. The fourth and final contribution is presentation of a model that explains the effect of brochure and virtual reality involvements on behavioral intention.

LITERATURE REVIEW

The first modern use of virtual reality was by the American computer scientist Jaron Lanier in the 1980s. The main purpose of Jaron was to enable computers to convey human-specific experiences within the technological future of human entrepreneurship, as it is in the technologies we transmit words by speaking (Lanier, 1992; Rheingold, 1992). The first modern virtual reality application belongs to the "sensororama" multisensory simulator developed by Morton Heiling in 1962. A motorcycle experience in New York City was tried with the feeling that it is in the real world thanks to the application. In the prototype, the perception of reality is enhanced with the presentation of odor, city noise, and wind. In the 1970s, virtual reality applications were developed for military purposes. Later, its use in different fields has become widespread with the increasing curiosity and low cost of virtual reality (Lau & Lee, 2015).

Stone (1991) defined virtual reality as a multiple environment that addresses the human senses, developed to increase the communication link between human and machine. According to another definition, virtual reality is a technology product that aims to increase the interaction between human and machine, by not audio and visual, but by feeling (Oppenheim, 1993). Virtual reality, which creates an experience that is part of the virtual environment, changes in real-time by also changing the reactions and movements of the user (Wirth et al., 2007). Ausburn and Ausburn (2004), on the other hand, defined virtual reality as an interface that simulates any environment, gives the sense of being the user, gives the feeling of being right there, and enables the user to interact with the environment by allowing him/her to use his/her body. Those who have previously had any virtual reality experience which makes the individuals active members of an environment designed in a three-dimensional computer environment, defines this situation as "wade into the virtual world" (Anderson et al., 2001).

In this virtual world, which is created with the help of computer technology and gives the person the feeling of being real, the control belongs completely to the user. Here, users can test themselves, evaluate their environment and have the opportunity to practice (Rizzo & Kim, 2005). Two basic components are needed to create a virtual reality experience. The first is to record the real-world scene through video capture or create a virtual world with computer-generated images. Secondly, virtual reality devices are needed to enable users to step into this virtual world (Aronson-Rath et al., 2015). There are three basic criteria for creation of virtual reality application in a computer environment. These elements named "3I" in virtual reality are imagination, interaction and immersion. Imagination; the virtual world represents the imaginary space in which the information about the environment solely reveals the creator's mind and can be published and learned as soon as it is shared. Interaction; it is expressed as synchronous and bi-directional information exchange between the participant and the computer in virtual reality. Immersion means that the participant wades into the virtual environment through different devices (Burdea & Coiffet 2003; Gutiérrez et al., 2008). Hjalager (2015) evaluates virtual reality as an important tool that can be used in recreations in tourism trips, museums and events. In this context, it can be stated that VR will be among the leading promotional tools to be used in tourism marketing.

The brochure, on the other hand, is a carefully prepared advertising tool and an effective printed media that supports the profits by explaining the mission of the companies to enable promotion of a service or product (Şentürk, 2014). We come across brochures which have different features in format, design, and content not only in communication and marketing, but also in many areas such as tourism agencies, congress centers, hotel lobbies, information centers, resting areas, promotion, and postal sending in our daily life (Chang & Kinnucan, 1991; Zhou, 1997; Singh & Lee, 2009). Although there is limited research on brochures and their roles, it has been one of the most used materials from past to present (Molina & Esteban, 2006).

In the 21st century, information-based technologies are developing rapidly in the tourism sector as it is in many sectors, but brochures still popular because they are the tools that have proven themselves in delivering messages and affecting the other party. Brochures include verbal and visual messages to fulfil the communicative task. Brochures with human figures, in particular, interact significantly with the individuals of different ages, genders, and lifestyles (Jokela, 2011). Brochures (Brito & Pratas, 2015), which are among the tourist promotional tools, play an important role in the preference of tourist destinations, in particular. Tourists prefer a destination if they get information meeting their holiday expectations in the promotional destination brochure. The history of service quality, which is a new subject in the field of management, dates back to the 1980s. The quality of the service is the result of the comparison of the customers' requests related to the service they receive and their thoughts about the received service (Oliver, 1997). According to another definition, service quality is defined as a satisfactory but not equivalent attitude style that results from the comparison of expectation with performance (Parasuraman et al., 1985). Implementation and comprehension of service quality is a very difficult phenomenon because the quality of service has a heterogeneous structure, it is consumed where it is produced, it is abstract, it varies according to where, when, and by whom it is offered, and production and consumption can occur simultaneously (Harvey, 1998). Therefore, managing the service quality correctly is important for both businesses and touristic destinations.

The tendency to react to an ad stimulus in a desired or undesirable manner under a certain exposure is defined as an attitude towards advertising (Mackenzie et al., 1986). There are three components as cognitive, behavioral and emotional as well as brand attitude. The cognitive component is that it reflects consumers' evaluations and thoughts about the service or product that is advertised. While the behavioral component expresses the desire of consumers to make positive or negative attitudes towards the advertised service or product, the emotional component characterizes the positive or negative emotions that the advertised service or product evokes for the consumer (De Pelsmacker et al., 2001).

Everything put on the market with an aim to attract the attention of consumers, encourage them to purchase, use, and consume, and satisfy their wishes and needs is called a product (Kotler, 2008). The product can be abstract or concrete, or it can be both abstract and concrete (McCarthy & Perreault, 1990). It is stated that the quality of the products produced and marketed by the companies forms the product philosophy that is relied on by an enterprise or organization. In another aspect, the product serves as a bridge between company managers and potential customers (Tek, 1999). While the product attitude is formed, a relatively permanent, one-dimensional summarization of the brand that energizes the attitude towards the brand and possible behavior occurs (Spears & Singh, 2004). In summary, customers first consider the product attitude when purchasing products. In this case, the primary targets of the companies in the traditional sector should be to establish a good product attitude in customers in order to influence their purchasing intentions (Yao & Huang, 2017).

The behavioral intention emerging as an output of the satisfaction process is defined as the preference of the customers whether to continue or not continue an action or organization (Anderson et al., 1994, p. 53). According to the marketing literature, behavioral intention strengthens the relationship of individuals with business and plays an important role in ensuring the continuity of these relations (Zeithaml et al., 1996). Behaviors, which are important factors in individuals' lives, can be evaluated before and after the consumer purchases products and services. This distinction in whether the person needs that product or service causes the equivalent of that product to enter the evaluation process and has effect on determination of the right alternative for such person (Altunışık et al., 2001).

RESEARCH MODEL AND HYPOTHESES

Theory of Planned Behavior (TPB)

One of the first studies on this concept is of psychology origin and based on Theory of Reasoned Action, and was conducted by Fishbein and Ajzen (1991). In theory, the authors have examined the relationship between intentions, beliefs, behaviors, and attitudes (Bigné et al., 2005). After a certain period of time, TPB was introduced, in which the perceived behavioral control variable was added to the theory and it was expanded. According to this theory, the determinant of the behavior consists of the intentions of individuals regarding certain types of actions (Ajzen, 1991). TPB is based on the fact that an individual's behavior is stimulated by three factors. These are personal attitude, subjective norm and perceived behavioral control. If the individual perceives any behavior positively (personal attitude), the probability of performing that behavior increases. Again, within the scope of the theory, if a person’s individual values are positive for that behavior, the probability of the individual to perform (subjective attitude) will increase. The third factor is that individual perceptions play an effective role in changing the behavior of the individual (perceived behavioral control) (Nunkoo & Ramkissoon, 2010).

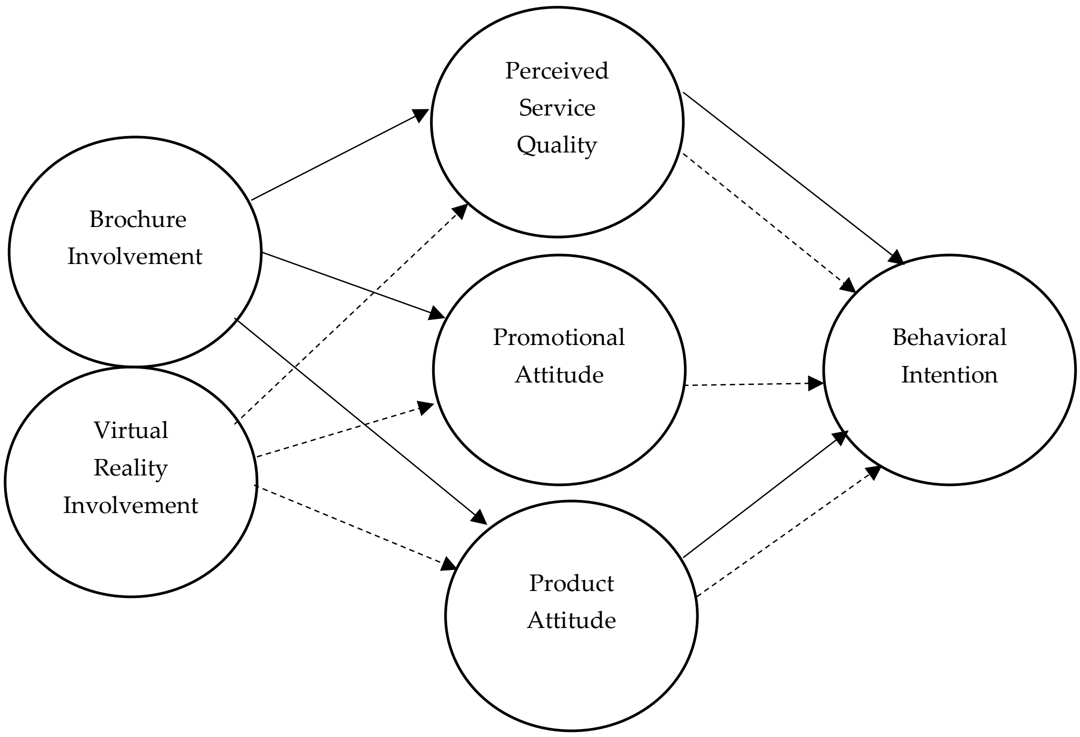

Figure 1. *Conceptual model*

* Straight lines belong to the brochure Involvement model. ** The dashed lines belong to the virtual reality model.

Recently, TPB has been frequently used by tourism researchers to explain the consumer behavior and their behavioral intentions (Ülker-Demirel & Çiftçi, 2020). For example, Han and Kim (2010) used TPB to explain re-visiting by the guests of green hotels. In this complex process, service quality perception positively affects the customer satisfaction and attitudes, contributing to the formation of the intention to visit again. Jalilvand and Samiei (2012), on the other hand, based on TPB, have revealed that electronic word of mouth is an important factor in the choice of destinations and their intention to travel. In this context, electronic word of mouth positively influences individuals' attitudes, subjective norms and perceived behavioral controls, inducing an intention to travel. Similarly, Lam and Hsu (2004) supported with empirical evidence that TPB was an adequate theory in the statement of the stages of formation of travelers' behavioral intentions in their destination selection. In fact, personal attitude and perceived behavioral control, which are two important factors used in the statement of behavioral intention, were stronger than past behavior. In this context, this research aiming to determine any previous behavioral intentions of the tourists, is based on TPB. Thus, whether the tourists change their behavioral intentions after virtual reality and brochure involvement is explained based on the personal attitude and perceived behavioral control elements of TPB. The model explaining the theoretical structure of the research, which was developed in the light of all these studies is shown in Figure 1.

Brochure, Virtual Reality, Service Quality, and Behavioral Intention

Attitude in TPB is an important factor affecting behavioral intention (Ajzen, 1991). In this context, VR does not only provide a pleasant experience to the user, but also causes to develop an attitude towards liking and choosing the introduced destination. This positive attitude triggers a high level of user intention to visit (Tussyadiah et al., 2018). Therefore, the positive attitude towards the quality of service of the tourist product introduced through VR can help the tourist developing behavioral intent towards this tourist product. An important reason for this is the positive effect of the perceived quality of service on tourist satisfaction (Rajaratnam et al., 2014). In addition, tourists experiencing VR exhibit behavioral intention to visit the destination in the future (Jung et al., 2017; Gibson & O'Rawe, 2018). Another study showed that the use of VR positively influences visitors' theme park experience, increasing their intention to visit again and recommend the park to other people (Wei et al., 2019). As a marketing tool, VR offers a deeper experience of the product compared to other promotional tools, by allowing tourists to have an emotional experience towards the destination and can replace traditional promotional tools such as brochures (Gibson & O'Rawe, 2018). In this context, the following hypotheses have been developed to be tested.

H1a: Brochure involvement affects the perceived service quality positively.

H1b: Virtual reality involvement affects the perceived service quality positively.
H4a: The service quality perceived from the brochure affects the behavioral intention positively.
H4b: The service quality perceived from virtual reality application affects behavioral intention positively.

Brochure, Virtual Reality, Advertising Attitude, and Behavioral Intention

There is a strong link between the consumer's satisfaction with the advertisement and the sale of the product (Halley & Baldinger, 1991). The metaphors in the headlines and visuals of the advertisements positively affect the attitude towards the advertisement (Ang & Lim (2006). For this reason, an aesthetically pleasing design and compelling qualities are needed to enable consumers to buy and read a destination-specific brochure (Getz & Sailor, 1993). The positive advertising attitude created by promotional tools with these qualities provides the consumer to develop a positive attitude towards that brand (Walker & Dubitsky, 1994). VR which has richer content than traditional promotional tools does not only generate positive feelings for the advertised destination in tourists but also encourages the tourists to tell other people about it (Griffin et al., 2017). Therefore, VR, which is used to plan and manage a destination, can also be used in destination marketing (Guttentag, 2010). In the promotion of theme parks, the virtual experience is considered to be a more effective advertising tool than the brochure (Wan et al., 2007). On the other hand, the fact that the individual has positive thoughts about and attitudes towards the consequences of a particular behavior can lead the individual to that behavioral intention (Fishbein & Ajzen, 2011).

In this context, the fact that the tourist has positive thoughts about (attitudes towards) the tourist product promoted using VR and realizes the easiness (perceived behavioral control) of this experience (Ajzen, 1991) may cause the tourist to show behavioral intention towards such tourist product. The brochure offers short and limited advertisement, while VR offers the tourist a virtual destination experience. It should be noted that use of these two different promotional tools in advertisement also affects the level of information involvement of tourists affecting the purchasing behavior (Wan et al., 2007). Accordingly, the following hypotheses were developed for testing.

H2a: Brochure involvement affects the advertising attitude positively.
H2b: Virtual reality involvement affects advertising attitude positively.

H5a: Advertising attitude in brochures affects behavioral intention positively.
H5b: Advertising attitude in virtual reality application affects behavioral intention positively.

Brochure, Virtual Reality, Product Attitude, and Behavioral Intention

Information is an important factor affecting the purchasing process of tourism products (Băltescu, 2019). The brochure is one of the important sources of information for individuals (Andereck & Caldwell, 1994). In this context, the brochure has a significant impact on the decision-making process of purchasing the tourism products and services (Băltescu, 2019). On the other hand, the fact that the information has qualities such as visual, hedonic or aesthetic plays an important role in the tourist search for information related to the destination. Such information gives tourists some clues about the destination image (Vogt & Fesenmaier, 1998). In addition, potential tourists' perceptions of usefulness, ease of use, and enjoyment towards virtual tours affect their attitudes positively. This positive attitude towards the destination affects the destination selection of potential tourists (Pantano & Corvello, 2014). Accordingly, VR is more effectual in its product knowledge, product attitude, and purchasing intention compared to a static interface (Suh & Lee, 2005). For this reason, it can shape the attitudes and behaviors of the consumers (Tussyadiah et al., 2018). Moreover, the decline in the prices of VR tools allows more users to experience it, which makes VR an important marketing tool (Barnes, 2016). In this context, the following hypotheses have been developed for testing.

H3a: Brochure involvement affects the product attitude positively.
H3b: Virtual reality involvement affects the product attitude positively.
H6a: Product attitude in a brochure affects the behavioral intention positively.
H6b: Product attitude in virtual reality application affects the behavioral intention positively.

Mediation Role of the Perceived Service Quality, Advertising Attitude, and Product Attitude

Brochures (Băltescu, 2019) and advanced technologies (e.g. virtual tours) (Pantano & Corvello, 2014) play an important role in purchasing or selecting tourist products and services. VR has greatly changed the way that the tourists experience any tourist products and services (Loureiro et al., 2020). With this new form of experience, tourists can learn more about the destination. This also affects the information involvement level of the tourist (Wan et al., 2007). The more the potential tourists' perceptions of risk and uncertainty towards the destination increase under TPB, the more the travel attitudes towards that destination decreases. In addition, the perception of uncertainty negatively affects the individuals' perceived behavioral control (Quintal et al., 2010). Therefore, the risk and uncertainty perceptions of potential tourists who are informed about the destination through brochure or VR can be reduced to allow purchasing the trip or choosing the destination. This diminishing uncertainty can positively affect perceived behavioral control, triggering the behavioral intention of the potential tourist. In addition, Bilim (2010) states that transferring the information in the brochure by designing it in a way that does not exceed the threshold of disturbing the consumer, positively affects the tourist's purchase intention. In addition, factors such as the general impression of the tourist products and services, perceived behavioral control and attitude positively affect the behavioral intention (Han & Kim, 2010).

H7a: The perceived service quality mediates the effect of the brochure involvement on the behavioral intention.
H7b: The perceived service quality mediates the effect of the virtual reality involvement on the behavioral intention.
H8a: Advertising attitude mediates the effect of the brochure involvement on the behavioral intention.
H8b: Advertising attitude mediates the effect of the virtual reality involvement on the behavioral intention.
H9a: Product attitude mediates the effect of the brochure involvement on the behavioral intention.
H9b: Product attitude mediates the effect of the virtual reality involvement on the behavioral intention.

RESEARCH METHOD

Measurement Instruments

The aim of this research is to reveal the effects of brochures and virtual reality on the purchasing intentions in destination marketing and to compare the relevant results. The data needed in this respect has been collected from the participants through a questionnaire. In this study, which was formed by TPB, the participants were presented a questionnaire covering the brochure involvement, virtual reality involvement, advertising attitude, product attitude, the perceived service quality and behavioral intention. In the process of developing the questionnaire statements, the related studies in the literature were referred to. To measure the participants' interest levels, Hsu and Mo’s (2009) research was utilized, and the scale used to reveal the advertising attitudes were adapted from Holmes and Crocker (1987) and Kim et al. (2002). In order to measure the attitudes of the participants towards the product, Yağcı et al.’s (2009) research was used. Studies of Dabholkar et al. (1996), Sweeney and Wyber (2002), and Hu and Jasper (2006) were utilized for the perceived service scale. Finally, Sweeney and Wyber’s (2002) research was referred to for the behavioral intention scale. These scales were adapted to the field of tourism by Bilim (2010) and these scales turned out to be valid and reliable. Since these scales are taken from international literature, linguistic validity steps were carried out (Brislin, 1976).

Research Sample

This study is conducted in Eskişehir, Turkey as being one of the important destinations both sending and attracting tourists. As of 2019, Eskişehir has higher per capita income and lower income inequality than the Turkish average (TUIK, 2020a). The city was chosen because the people of Eskişehir enjoys the tourist products and services in the same extent as a potential tourist. In 2019, on the other hand, the Netherlands attracts more than 20 million foreign tourists (UNWTO, n.d.). Amsterdam is home to over 4 million foreign tourists annually (amsterdam.org). In 2019, however, the number of Turkish people visiting the Netherlands is around 45,000 (TUIK, 2020b). These data show that Amsterdam is a less preferred destination by the Turkish people. At this point, Amsterdam is a convenient destination to compare the effects of brochures and virtual reality on promoting a destination that has not been experienced yet by the potential tourists. The reason behind choosing Amsterdam is that it is a popular destination, it has 3600 and 4K video compatible with virtual reality goggles, and the majority of the people of Eskişehir have not been in Amsterdam before.

The participants of the study were selected by convenience sampling method and a total of 120 people were reached between June 1 and August 1, 2019. Since the analysis phase of the research takes too long, it is essential that the participants are voluntary. Participants were asked to ignore any elements (such as holiday fees, time restrictions, passports, and visa transactions) that could restrict their travel abroad when filling out the questionnaire.

Two different questionnaires about the effect of brochure and virtual reality application on the behavioral intention were used in the study. First, the participants were requested to carefully review the brochure presented to them in order to get an idea of Amsterdam. They were expected to read the brochure and learn about the destination while reviewing it. All these steps were also followed for the virtual reality video promoting Amsterdam. Additionally, each participant was initially expected to complete the brochure-related process and then the virtual reality application. Whether each participant completed the processes in sequence was checked by the authors. As a result, it has been found that each participant completed both stages. In the view of such information, the participants were given a brochure introducing Amsterdam and they were asked to examine it at the first stage of implementation. In the second stage of implementation, they were requested to fill out the brochure questionnaire carefully by taking into account the brochure they examined. In the third stage, they were given the promotional video of Amsterdam, which was prepared in 360 degrees and in 4K, and they watched it by means of virtual reality goggles. In the fourth stage, they were requested to fill out the virtual involvement questionnaire by taking into account the virtual reality experiences they had. The participants spent approximately 20 minutes to fill out the two questionnaires, i.e. a brochure involvement and a virtual reality involvement questionnaire.

Data analysis

Smart PLS v.3.2.7 statistics program and Partial Least Squares technique were used in testing the measurement model and structural model due to insufficient sample volume (n: 120). In the study, the two-step approach was followed; first the measurement model and then the structural equation model was tested (Anderson & Gerbing, 1988). In addition, bootstrapping technique was used in determining the mediation hypotheses (Hair et al., 2014).

RESULTS

Demographic Findings

The findings about the demographic characteristics of the individuals participating in the research are presented in Table 1. According to Table 1, it is seen that 52.5% of the participants are male and 63.3% are married. The examination of the ages of the participants shows that the highest participation is in the 30-34 age group with 20.8% and in the 35-39 age group with 17.5%. Considering the educational status of the participants, the highest participation is observed in undergraduate and high school graduates with 33.3% and 25%, respectively. Finally, it is seen that the monthly income of the individuals with high participation ranged between 1500₺-1999₺ and 2000₺-2499₺ respectively.

Table 1. *Characteristics of the Subjects*

Variable		n	%	Variable		(n)	%
Gender	Female	57	47.5	**Age**	18-24	16	13.3
	Male	63	52.5		25-29	17	14.2
Marital Status	Single	44	36.7		30-34	25	20.8
	Married	76	63.3		35-39	21	17.5
Monthly Income	1500₺-1999₺	27	22.5		40-44	16	13.3
	2000₺-2499₺	22	18.3		45-49	13	10.8
	2500₺- 2999₺	12	10.0		50 and above	12	10.0
	3000₺-3499₺	18	15.0	**Educational Status**	Primary education	7	5.8
	3500₺-3999₺	7	5.8		High School	30	25.0
	4000₺- 4499₺	13	10.8		Associate Degree	23	19.2
	4500₺-4999₺	14	11.7		Undergraduate	40	33.3
	5000₺ and above	7	5.8		Graduate	20	16.7
Total		120	100	**Total**		120	100

First, the reliability and validity of measurement model was tested. The basic logic behind creating the measurement model is to test its validity and reliability for assessing whether the measured structures are measured correctly (Merli et al., 2018). Factor loads, Cronbach Alpha (CA), Composite Reliability (CR), and average variance extracted (AVE) values were calculated in order to ensure content validity in the study. Accordingly, it is suggested that the factor loads of items to constructs are above 0.70, CR is above 0.70 and AVE value is above 0.50 (Hair et al., 2017; Ali et al., 2018). As seen in Table 2, all factor loads and alpha values are above 0.70. In addition, it is seen that AVE values are greater than 0.50 and CR values are above 0.70. Therefore, convergent validity was fulfilled in both models (Ali et al., 2018). In this study, a statement was removed at the test stage of the brochure involvement measurement model due to its low factor load. Factor loads of the scale items of the brochure involvement model 0.880-0.963 are as follows: CA values are 0.918-0.977; CR values are at the range of 0.948-0.980, and AVE values are at the range of 0.859-0.892. On the other hand, factor loads of the scale items of the virtual reality involvement model 0.781-0.973 are as follows: CA values are 0.936-0.980, CR values range between 0.956 and 0.983, and AVE values range from 0.845 to 0.923. Considering these values, it can be said that the content validity of the models has been established in the research (see Table 2).

Table 2. *Findings of the Measurement Model*

	BROCHURE MODEL				VIRTUAL REALITY MODEL			
Variables	**Factor Loads**	***Cronbach's Alpha***	**CR**	**AVE**	**Factor Loads**	***Cronbach's Alpha***	**CR**	**AVE**
Interest		0.972	0.977	0.876		0.975	0.981	0.911
M1	0.963				0.948			
M2	0.951				0.973			
M3	0.928				0.968			
M4	0.937				0.950			
M5	0.924				0.931			
M6	0.913				0.948			
Product Attitude		0.918	0.948	0.859		0.936	0.956	0.845
M7	Removed				0.781			
M8	0.880				0.954			
M9	0.959				0.964			
M10	0.940				0.964			
Behavioral Intention		0.939	0.961	0.892		0.959	0.973	0.923
M11	0.951				0.967			
M12	0.957				0.956			
M13	0.924				0.960			
Service Quality		0.977	0.980	0.860		0.980	0.983	0.879
M14	0.912				0.917			
M15	0.947				0.939			
M16	0.940				0.946			
M17	0.924				0.945			
M18	0.924				0.915			
M19	0.929				0.944			
M20	0.931				0.959			
M21	0.909				0.935			
Advertising Attitude		0.952	0.965	0.875		0.948	0.962	0.864
M22	0.910				0.913			
M23	0.958				0.945			
M24	0.926				0.939			
M25	0.946				0.921			

Table 3. *Fornell-Larcker Discriminant Validity Criteria for Models*

	Fornell	**1**	**2**	**3**	**4**	**5**
BROCHURE MODEL	1.Behavioral Intention	**0.944**				
	2. Service Quality	0.854	**0.927**			
	3. Advertising Attitude	0.581	0.484	**0.935**		
	4. Product Attitude	0.794	0.732	0.590	**0.927**	
	5. Brochure Involvement	0.460	0.412	0.795	0.498	**0.936**
	Fornell	**1**	**2**	**3**	**4**	**5**
VIRTUAL REALITY MODEL	1. Behavioral Intention	**0.961**				
	2. Service Quality	0.869	**0.938**			
	3. Involvement	0.558	0.646	**0.954**		
	4. Advertising Attitude	0.605	0.569	0.692	**0.930**	
	5. Product Attitude	0.838	0.827	0.670	0.669	**0.919**

Fornell-Larcker Criteria and Heterotrait-Monotrait Ratio of correlation (HTMT) values were calculated to assess the discriminant validity. According to the Fornell-Larcker criterion, the square of the average variance (AVE) value described in each structure should be greater than the correlation between the structure and other structures (Hair et al., 2014). As seen in Table 3, the discriminant validity of the two models has been established.

HTMT value is a better way to check the discriminant validity compared to the traditionally accepted Fornell-Larcker criterion for discriminant validity (Ali et al., 2018). The fact that this value is below the limit value of 0.90 indicates that the criterion validity is established (Rodríguez-Victoria et al., 2017). As shown in Table 4, this value is observed to be within acceptable limits in both models.

Table 4. *HTMT Discriminant Validity Criteria for Models*

	HTMT	1	2	3	4	5
BROCHURE MODEL	1. Behavioral Intention					
	2. Service Quality	0.890				
	3. Advertising Attitude	0.615	0.501			
	4. Product Attitude	0.851	0.772	0.629		
	5. Brochure Involvement	0.479	0.419	0.824	0.524	
VIRTUAL REALITY MODEL	HTMT	**1**	**2**	**3**	**4**	**5**
	1. Behavioral Intention					
	2. Service Quality	0.895				
	3. Involvement	0.576	0.660			
	4. Advertising Attitude	0.634	0.590	0.719		
	5. Product Attitude	0.884	0.864	0.701	0.708	

Structural Model Test

Standardized Root Mean Square Residual (SRMR) value of the means of the standardized error squares as the good fit of the research models was taken into consideration as the model fit value. Henseler et al. (2016) state that SRMR is a recommended criterion as a model fit criterion. SRMR value below 0.08 indicates that the model has a good fit (Hu & Bentler, 1999). In this study, SRMR value of brochure involvement model was found to be 0.041 and SRMR value of virtual reality model was found as 0.038. In addition, the value of NFI for the brochure model and the virtual model were 0.95 and 0.92 respectively. These values are acceptable for both models (Tabachnick & Fidell, 2007). Therefore, its structural model is compatible with the data.

Method coefficients of structural models are presented in Table 5. According to the findings of the brochure involvement model, involvement positively and significantly affects the quality of service (β = 0.412; p <0.01), advertising attitude (β = 0.795; p <0.01), product attitude (β = 0.498; p <0.01). In addition, service quality (β = 0.575; p <0.01), advertising attitude (β = 0.181; p <0.05), and product attitude (β = 0.301; p <0.01) positively and significantly affect behavioral intention. In line with these findings, H1a, H2a, H3a, H4a, H5a, and H6a hypotheses are supported.

According to the findings of the virtual reality model, involvement positively and significantly affects the quality of service (β = 0.646; p <0.01), advertising attitude (β = 0.692; p <0.01), product attitude (β = 0.670; p <0.01). In addition, while the quality of service (β = 0.599; p <0.01) and product attitude (β = 0.362; p <0.01) positively and significantly affect behavioral intention, the effect of advertising attitude on behavioral intention is insignificant (β = 0.137; p> 0.01). In the light of these findings, H1b, H2b, H3b, H4b, and H6b hypotheses are supported, but the H5b hypothesis is rejected. The bootstrapping technique was used to evaluate the direct effects. The results of bootstrapping technique and the values of R^2 for both models were given in Table 5.

Table 5. *Path Coefficients of the Models*

	Variables	Coefficients	t-values	5% lowest values	95% highest value	R^2	Result
BROCHURE MODEL	**Involvement -> Service Quality**	0.412	5.503*	0.278	0.526	0.162	Supported
	Involvement -> Advertisement	0.795	20.143*	0.712	0.849	0.628	Supported
	Involvement -> Product Attitude	0.498	7.607*	0.372	0.594	0.241	Supported
	Service Quality -> Behavioral Intention	0.575	8.596*	0.462	0.683	0.795	Supported
	Advertisement -> Behavioral Intention	0.181	2.136**	0.046	0.325		Supported
	Product Attitude -> Behavioral Intention	0.301	4.470*	0.191	0.412		Supported
	Variables	**Coefficients**	**t-values**	**5% lowest values**	**95% highest value**	**R^2**	**Result**
VIRTUAL REALITY MODEL	**Involvement -> Service Quality**	0.646	8.945*	0.510	0.753	0.412	Supported
	Involvement -> Ad Attitude	0.692	14.972*	0.609	0.759	0.474	Supported
	Involvement -> Product Attitude	0.670	10.760*	0.550	0.759	0.444	Supported
	Service Quality -> Behavioral Intention	0.599	6.003*	0.440	0.766	0.807	Supported
	Advertisement -> Behavioral Intention	0.137	1.592	-0.019	0.265		**Not supported**
	Product Attitude -> Behavioral Intention	0.362	3.486*	0.185	0.522		Supported

* p<0.01, **p<0.05

The bootstrapping technique also was used to determine the mediation hypotheses. As claimed by Nitzl et al. (2016), t-value may be misleading in determining the mediation effect, so the calculation of confidence interval is more accurate.

In addition, the steps proposed by Zhao et al. (2010) were observed in the mediation analysis. Bootstrap method is preferred in the evaluation of indirect effects. It is considered a very effective method for evaluating certain indirect effects of the bootstrap method (Preacher & Hayes 2008). In the bootstrap method, if the lower and upper confidence intervals are different from the class, it is considered that the indirect effects are significant, so the mediation hypothesis is supported (Zhao et al., 2010; Ledermann & Macho, 2009). Accordingly, the way to estimate parameters in the 95% confidence interval with 5000 times resampling method was used in the study.

As seen in Table 6, the lower and upper limit value ranges of the indirect effects of the brochure involvement model do not include any zero value. Therefore, the mediation roles of service quality, advertising attitude, and product attitude variables are significant. Accordingly, the indirect effect of involvement on behavioral intention through service quality is 0.236. The indirect effect of involvement on behavioral intention through advertising attitude is also 0.145. Finally, the indirect effect of involvement on behavioral intention through product attitude is 0.151. Considering that the effect of involvement on behavioral intention is not significant, it is possible to claim that the type of mediation is complementary mediation. H7a, H8a, and H9a hypotheses are supported.

Table 6. *Indirect Effects of Involvement on Behavioral Intention*

BROCHURE MODEL						
Variables	**Original Sample**	**t-Value**	**p-Value**	**5% lowest values**	**95% highest value**	**Result**
Involvement -> Ser. Qual. -> Behav. Int.	0.236	4.511	0.000	0.152	0.325	Supported
Involvement -> Ad. Attit. -> Behav. Int.	0.145	2.130	0.033	0.036	0.259	Supported
Involvement -> Prod. Attit. -> Behav. Int.	0.151	3.678	0.000	0.089	0.225	Supported
VIRTUAL REALITY MODEL						
Variables	**Original Sample**	**t-Value**	**p-Value**	**5% lowest values**	**95% highest value**	**Result**
Involvement -> Ser. Qual. -> Behav. Int.	0.387	4.945	0.000	0.271	0.533	Supported
Involvement -> Ad. Attit. -> Behav. Int.	0.095	1.602	0.109	-0.012	0.182	**Not supported**
Involvement -> Prod. Attit. -> Behav. Int.	0.242	3.233	0.001	0.125	0.370	Supported

When the findings of the virtual reality model are examined; the indirect effect of involvement on behavioral intention through service quality is 0.387. The indirect effect of involvement on behavioral intention through product attitude is 0.242. The lower and upper limit values of the indirect effects of the model do not include any zero value. However, when the indirect effect of involvement on behavioral intention through advertising attitude is examined, it is seen that the lower and upper limit values of indirect effect include zero. Therefore, the mediating role of advertising attitude could not be confirmed. According to these findings, H7b and H9b hypotheses are supported, but H8b is rejected.

DISCUSSION AND CONCLUSION

Brochure implementation results of the research suggest that brochure involvement affects the service quality, advertising attitude, and product attitude positively. In addition, service quality, advertising attitude, and product attitude positively affect behavioral intention. Another important result obtained is that the quality of advertisement, advertising attitude, and product attitude mediate the effect of brochure involvement on behavioral intention.

Virtual reality results of the research suggest that involvement in virtual reality positively affects the service quality, advertising attitude, and product attitude. Moreover, it has been determined that the service quality and product attitude positively affect the behavioral intention, but the effect of advertising attitude on behavioral intention is insignificant. In addition, it has been found that involvement positively affects the behavioral intention through the perceived service quality and product attitude. However, the advertising attitude does not have a mediation role in the effect of involvement on behavioral intention. This unexpected result shows that the attitude towards advertising has no effect on the transformation of the individual's virtual reality involvement into behavioral intention. This can be explained by the effect of the method used in advertising activities depending on the characteristics of the product to be promoted (Wan et al., 2007).

Comparison of Virtual Reality and Brochure Involvement Results

Although virtual reality offers more information, visual and audio elements about the product being promoted compared to the brochure; the involvement in brochure is more effective on the advertising attitude of individuals. However, Wan et al. (2007) found that virtual experience is more effective than traditional brochure method in advertising methods for theme parks. In the same research, no significant difference has been found between the virtual experience and the brochure in the advertising method for natural parks.

This research contributes the marketing literature by revealing the effects of virtual reality application on the perceived service quality, product attitude, and behavioral intention. The studies in the field of marketing reveal the effects of brochure involvement on advertising attitude, product attitude, and the perceived service quality. However, the effects of virtual reality application have not been extensively studied in the literature. Therefore, this research integrated the virtual reality application, which is widely used with the developing technology and economic opportunities, into the research model and demonstrated the role of virtual reality application in the process from involvement to purchase intention. While virtual reality increases the tourist experience and sense of belonging, it also increases the spatial consciousness level of the tourist and triggers positive feelings towards the visited place. Therefore, virtual reality application can be used as a tool in destination marketing (Pantelidis et al., 2018).

The results of the brochure implementation show that the advertising attitude positively affects the behavioral intention. At this point, the results of this study are in line with the research findings of Halley and Baldinger (1991) and Walker and Dubitsky (1994). However, the results of the virtual reality application have revealed that there is no significant relationship between advertising attitude and behavioral intention. Using virtual reality in destination marketing is more advantageous than the brochure, which provides limited information. The visitor who gets limited information from the brochure will not be happy with his vacation because it does not meet his expectations throughout his experience. In contrast, virtual reality provides more comprehensive information about the destination to the visitor (Cheong, 1995). In destination marketing, virtual reality is suggested as a tool that positively affects the image of the destination (McFee et al., 2019). Virtual reality applications have the potential to be an effective tool that can be used to convey cultural values. Virtual reality application can be used as a useful tool especially for young people because of the interesting features that this technology offers (Carrozzino & Bergamasco, 2010). As a result, virtual reality will positively affect the efficiency and profit maximization of businesses in the sector (Durmaz et al., 2018).

This research has contributed to the related literature in four ways. First, the determinants of behavioral intention have been found out. Second, how brochure and virtual reality involvements affect behavioral intention has been revealed. Third, it pioneers in dealing with virtual reality involvement. The final contribution is that the model explaining the effect of brochure and virtual reality involvement on behavioral intention is generally accepted.

Theoretical Implications

More theory-based research on the concept of virtual reality is needed (Huang et al., 2016; Yung & Khoo-Lattimore, 2019). Therefore, this research could be considered a response to the calls for such studies. This research focuses on the application of virtual reality and explains the relationships between the research variables with the help of theory of planned behavior. As a result of the research, it is seen that brochure and virtual reality involvement have positive effects on behavioral intention through the perceived service quality, advertising attitude, and product attitude. It has been demonstrated that the involvement in virtual reality alone does not affect behavioral intention through advertising attitude.

Other findings, except for this finding, overlap with the personal attitude and perceived behavior control factors of TPB. In fact, the participants have developed a personal attitude towards the destination (Amsterdam) after examining the given materials. In addition, this research is one of the few studies that discuss the relationship between virtual reality concept and other variables within the scope of TPB (Han et al., 2014; Huang et al., 2010). In view of all information, the research contributes to TPB in two different ways. The first contribution is the general support of the model in which virtual reality involvement created under TPB is considered the main variable. The second contribution is that the brochure involvement model, which is also based on the theoretical basis of TPB, is fully supported. In addition, the research findings contributed to personal attitude and perceived behavior control factors that are among the factors of TPB. This is a clear indication that the research has made an original contribution to the theory. Additionally, it creates a theoretical background for future research in the field of virtual reality.

Practical Implications

When the effects of brochure involvement and virtual reality involvement on other variables are compared; VR involvement has a higher impact on the perceived service quality and product attitude. In addition, it is seen that virtual reality gives more effective results about the effect of the perceived service quality and product attitude on behavioral intention. In comparison to the indirect effects in the model, it has been revealed that virtual reality involvement, the perceived service quality, and product attitude have higher mediating effects. These results shows that use of brochures in the process of transforming involvement into behavioral intention is more successful especially at the advertising attitude phase. However, it is seen that virtual reality application presents better results for the perceived service quality and product attitude. Therefore, if the destination marketers want to achieve a goal for the advertising attitude, they prefer the brochure, but if they want to develop an attitude towards the service quality or the product, it will be useful for them to choose virtual reality application to achieve their goals. This research shows that virtual reality can be an important marketing tool in tourism (Cheong, 1995). Individuals who will participate in tourism activities can draw inferences about the quality of services for touristic products thanks to their virtual reality experience (Sarı & Kozak, 2005). Therefore, virtual reality offers tourists many advantages in choosing a tourism product with the unique experience. It offers important advantages for businesses in the marketing of destinations as well (Özgüneş & Bozok, 2017). One of its most important advantages is more transparency in the promotion of products (Arat & Baltacıoğlu, 2016). A good product attitude that may affect the purchase intention should be created (Yao & Huang, 2017). This research shows that virtual reality application is more successful than traditional brochure in creating product attitude. Considering the widespread usage and the speed of technological development and its effects on individuals and businesses, this research demonstrates that virtual reality application can ensure more satisfactory contributions to the demands and needs of the new generation that grows along with the technology. In the light of all this information, tour operators and travel agencies using virtual reality in destination marketing will provide convenience to both businesses and consumers.

Limitations and Recommendations

The main limitation of the research is that the model designed was evaluated only in Eskişehir region. The evaluation of this model in different regions or countries will contribute to the model. Furthermore, the research deals with only the destination of Amsterdam. The evaluation of different destinations by comparing them for future research will contribute both to the literature and the model of research. Finally, the implementation of the model to customers of travel agencies or tour operators will bring a different perspective to the research.

ACKNOWLEDGMENT

This article has been produced from the project coded 201725049 supported by Scientific Research Projects of Eskişehir Osmangazi University.

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DOI: 10.30519/ahtr.873603

Advances in Hospitality and Tourism Research (AHTR) 2021
An International Journal of Akdeniz University Tourism Faculty Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online) 341-367
Webpage: http://www.ahtrjournal.org/

MINING TOURISM POTENTIAL ASSESSMENT OF RANIGANJ COALFIELD, INDIA

Payel GHOSH [1]

Department of Geography, Banaras Hindu University, India

ORCID: 0000-0002-4150-8439

ABSTRACT

This study focuses on the potential of mining tourism in the oldest coalfield of India. To conduct the research, five mines from Raniganj coalfield have been selected based on their comparatively high degree of preservation, good connectivity, and quality to show the interconnectedness of mining tourism with other forms of tourism such as geotourism and heritage tourism. The tourism attractions for each mining site are classified following Jolliffe and Conlin (2011), whereas, the assessment criteria are prepared after Kubalíková (2017). The guidelines of the Ministry of Tourism of India are followed for tourism circuit demarcation. The outcome highlights that although risk factors cannot be neglected in some cases, each site represents diverse mining tourism attractions along with having good connectivity and accessibility. However, the result shows only around 50% feasibility for mining tourism, mainly because of the non-availability of proper tourism infrastructure. Road network analysis is done and two possible tourism routes are suggested. This study raises basic and initial issues indicating the mining tourism potential of Raniganj coalfield. Initiatives by the stakeholders in terms of an awareness campaign and generation of basic tourism facilities are necessary which may lead to the successful development of mining tourism in these sites in the future.

Article History
Received 3 February 2021
Revised 25 August 2021
Accepted 27 August 2021
Published online 5 Oct. 2021

Keywords
tourism potential
niche tourism
assessment criteria
tourism circuit
geoheritage

INTRODUCTION

Mining tourism is special interest tourism that includes exploration of the mining landscape, interpretation of mining technology, preservation of mining heritage; and also provides education and amusement to mining tourists. This kind of tourism is gaining popularity all over the world especially in the developed countries (Różycki & Dryglas, 2017). Mining is

[1] Address correspondence to Payel Ghosh, Department of Geography, Faculty of Science, Banaras Hindu University, Varanasi, Uttar Pradesh, India. E-mail: payel.ghosh5@bhu.ac.in

one of the essential activities for the economic development of a country. To conduct this activity a huge amount of land to be engaged, which would possibly have no use after mines are exhausted. Therefore, it is necessary to think of (re)using the mining land for other purposes too, and mining-based tourism turns out to be useful in this regard. The development of mining tourism has many benefits, which includes— a) expansion of tourism in regions where it was absent previously, b) additional opportunities for economic activities and employment through tourism, c) opportunity for tourists to visit unexplored places, and d) awareness, protection, and preservation of mining heritage (Edwards & Coit, 1996).

Review of Literature

The concept of mining tourism developed during the 1990s as a result of growing concern within academics about the management of huge unproductive land that occurred during mineral extraction. Mines, on one hand, have been seen as geoheritage and a part of the human-made or secondary geo(logical)diversity hence it is considered as an element of geotourism (Sadry, 2009; Kubalíková et al., 2016; Hose, 2017). On the other hand, it is perceived as a cultural heritage that conveys the development of industrial societies and technological excellence of the human race (Edwards & Coit, 1996; Conlin & Jolliffe, 2011a). Interestingly, the development of the concepts of geotourism and industrial heritage tourism is somehow associated with the idea of using mining sites for tourism purposes. Thomas A. Hose, a geologist from the University of Bristol, is credited for defining the concept of geotourism for the first time in 1995, who later wrote that one of the key factors behind this concept was "the increasing losses of mines and quarries (due) to unsympathetic after-uses and reclamation programmes" (Hose et al., 2011, p. 339; Hose, 2012, p.7). Likewise, in 1996, Edwards and Coit, geographers from the University of Wales, brought into discussion the potential of mines and quarries as industrial heritage and how society could be benefitted from this. Both the publications of Hose (1995) and Edwards and Coit (1996) addressed the situation in the United Kingdom (UK). In the UK, the place where industrialisation began, the amount of unproductive land due to mining was in a surge, it made scholars from different academic backgrounds think for alternative use of the mining landscape. Presently, mining tourism is a topic of academic discussion both from geotourism perspective (Nita & Myga-Piątek, 2014; Beranová et al., 2017; Hose, 2017; Kubalíková, 2017; Baczyńska et al., 2018; Goki et al., 2018; Mero et al., 2018; Sikora & Daron, 2019) and industrial heritage perspective (Cole, 2004; Ballesteros &

Ramírez, 2007; Vargas-Sánchez et al., 2009; Conesa, 2010; Conlin & Jolliffe, 2011a; Marot & Harfst, 2012; Różycki & Dryglas, 2017; Jelen, 2018). These publications deal with different approaches and methodologies to interpret mining tourism, and highlight myriad examples and case studies across the world.

However, Rybár and Štrba (2016) argue that there are significant differences between geotourism, industrial tourism, and mining tourism, therefore, mining tourism should be considered as “an individual form of tourism which, in many cases, is related to geotourism and industrial tourism but is on the same level as geotourism and industrial tourism” (Rybár & Štrba, 2016, p. 5). They defined mining tourism a form of tourism which encourage both general and specialist public to visit in-situ mines, mining museums, culturo-historical monuments, miners’ community to experience the ambiance and also gather insight (Rybár & Štrba, 2016; Rybár & Hronček, 2017).

Yet the conversion of post-mining landscape to tourism attraction is not an easy task and poses many challenges for stakeholders, tourism managers, and local people (Mendes, 2013). First of all, the concept of mining heritage differs, in many ways, from the standard idea of beauty (Edward & Coit, 1996; Mendes, 2013; Jelen, 2018). It is often perceived as ugly, dusty, and unattractive compared to other tourist destinations (Conlin & Jolliffe, 2011b). Moreover, mines are high-risk zones that many people do not consider worth visiting due to safety concerns. Sometimes increase in demand for the material mined in the mining site may make it potential for further production of material discarding its touristic value (Ateş, 2016). All these difficulties must be overcome before mining tourism could start. However, despite the difficulties, there are many mining tourism sites that experience a significant number of footfalls annually. For instance, Big Pit National Coal Museum, a UNESCO certified heritage site in UK, where around 150 thousand people visited the museum in 2019 alone.[2] At present over 20 mining sites from across the world is included in the UNESCO’s world heritage site list and many of them are being used for tourism purpose.[3]

Mining Tourism: Indian Scenario

In India, tourism is an important source of national revenue generation, in 2018 travel and tourism sector alone contributed 9.2% of the country’s GDP

[2] https://museum.wales/visitor_figures/

[3] https://whc.unesco.org/en/list/

making it the 8th largest travel and tourism economy in the world (World Travel and Tourism Council, 2019). In this country, a well-structured tourism industry exists emphasising the natural, cultural, religious, and architectural attractions of the country (Ministry of Tourism, Government of India, 2019). The idea of geotourism in India has developed lately based on geographical heritages belonging from different environments like the Himalayan region, the desert in the west, the coastal region, and peninsular India (Singh & Anand, 2013). Over 30 sites from all over the country are given the status of National Geological Monuments by the Geological Survey of India (GSI) for preservation, maintenance, and promotion of tourism (www.gsi.gov.in). Indian National Trust for Art and Cultural Heritage (INTACH) (2016) a United Nation recognised non-governmental organisation, has contributed more by giving detailed accounts of geosites recognised by GSI. Mining tourism, on the other hand, came into practice only recently when in 2016 Saoner and Gondegaon mines near Nagpur, in the state of Maharastra have been opened for tourists as a joint project of Maharastra Tourism Development Corporation and Western Coalfields Limited (Goradia, 2016) and welcomed over 145 thousand of visitors by 2018 (Singh & Mishra, 2018). At present more than fifteen coal mines across the country are being used as eco-parks and mining museums by undertaking sustainable mining closure practices and a few more will be added to the list by 2021-2022.[4] It shows that all the efforts have been made towards developing eco-mining-tourism in coal mines.[5] But there are many other sectors of tourism that may explore the scope of mining tourism in a more meaningful way as highlighted in Różycki and Dryglas (2017).

Aims and Objectives

This paper is dedicated to exploring the possibilities of mining tourism in India in association with other forms of tourism like heritage tourism, geotourism, dark tourism, etc. because India is a highly populated country with a high population density and unemployment rate. The development of mining tourism will possibly generate new employment opportunities and help in better land management by reusing mining land for tourism purposes. To conduct a preliminary research, this examination is started with a smaller area of study. Five mining sites of Raniganj Coalfield, the oldest coalfield of India, have been selected namely, Chinakuri Pits, Narankuri mines remnant, Mahabir Colliery, Sonepur-Bazari Open Cast Project (OCP), and Khottadihi OCP (see, Figure 2). These mines are located

[4] www.coal.nic.in
[5] www.coal.nic.in; www.bcclweb.in and www.wclnucleus.wordpress.com

close to each other and well-connected through roadways with major towns and cities of Raniganj coalfield. The objectives of the study are to integrate mining tourism with other forms of tourism such as adventure tourism, heritage tourism, dark tourism, geotourism, and movie-induced tourism; and to assess the tourism potentiality of the selected mining sites through criteria of the degree of preservation, connectivity, accessibility, safety, tourist infrastructure, availability of tour guide, and requirement of permission to visit the mines. In addition, this study aims to find the scope of circuit tourism involving these mining sites through road network analysis.

SELECTION OF MINING SITES

This study could be divided into three major sections; the selection of the mines; assessment of the mines, and demarcation of the tourism circuit. The mines are selected based on good connectivity and the ability of the sites to attract visitors. The connectivity is measured through the distance of the sites from the major highways, railway stations, and airports; and attractiveness is measured by the higher degree of preservation of the sites and how these sites are capable to interrelate other niche tourisms with mining tourism. Gürer et al. (2019) have proposed a compound geotourism concept, where geotourism is combined with mining tourism. They associate coal mine tourism with other elements of geotourism such as geoparks, neotectonic structures, water springs, etc. for the overall development of geotourism (Gürer et al., 2019). This research expands the idea, keeping mining tourism as the central focus, and examines the feasibility of other niche tourism such as adventure tourism, heritage tourism, dark tourism, geotourism, and movie-induced tourism in Raniganj coalfield. Table 1 briefly defines each of these types of tourism and explains how the sample mining sites from Raniganj coalfield connect them with mining tourism.

These mines are assumed to be capable of mining tourism with a particular set of tourism attractions and are considered potential mining tourism sites on an ad hoc basis. Most of the sites are virgins from the touristic viewpoint because they are not officially developed for tourism purposes. Yet, unorganised and random visits by students of different disciplines such as geology, mining engineering take place occasionally for educational or research purposes. However, academic discussions regarding the potential of these mines as a tourism site have already started and the outcomes are reflected in the preliminary works such as Singh and

Ghosh (2019, 2021). This research furthers the previous studies using a quantitative approach and suggesting a tourism circuit.

Table 1. *Definition of various tourism types and their association with potential mining tourism sites of Raniganj Coalfield*

Types of tourism	**Definitions**	**Examples of potential tourism sites from Raniganj coalfield**
Adventure tourism	Adventure tourism provides the adventurous experience by mimicking the real situation without risk and hardship associated with that particular situation (Fletcher, 2010, p. 16). It generally involves specialised equipment and guided activity (Buckley, 2006).	Chinakuri pit is the deepest coal mine in India (Singh & Ghosh, 2019) which is 613 meters deep and at present operating but not producing (information collected during a field visit January 2021). This mine can be used for adventure tourism where people will go and enjoy several guided activities underground.
Heritage tourism	History is the main theme of heritage tourism (Edward & Coit, 1996). It provides authentic experience and narratives about the past in the present (DeLyser, 1999).	Narankuri is one of the oldest places where coal mining in India was initiated (CMPDIL, 1984). And still, now there are several remnants of old mines and buildings are present here, part of which is already recognised as the heritage of the state by the West Bengal Heritage Commission in 2018.[6]
Dark tourism	Dark tourism is special interest tourism that uses the places of accident, death, and suffering as tourist destinations (Stone, 2006). Traveling to the places associated with death, sufferings or disasters is not new and there is ample evidence of it in Stone and Sharpley (2008).	In 1989 a fatal accident occurred in Mahabir Colliery followed by an unprecedented rescue operation that catches the eyes of global media.[7] This incident makes this mine capable of dark tourism.
Geotourism	Geotourism is geology and geomorphology-based tourism (Hose, 1995). It promotes abiotic elements of nature adds touristic values to the geological and geographical resources of a place (Dowling, 2011).	Sonepur-Bazari opencast project is one of the largest opencast coal mines in India with 2404.86 Ha of area coverage (CMPDIL, 2014) and the capacity of producing up to 12 million tonnes per year (see, www.easterncoal.gov.in). It has several geological and geo-anthropogenic features which would make geotourists interested to visit the site (Singh & Ghosh, 2021). Hence, this mine can expand the area of mining tourism towards geotourism.
Movie-induced tourism	Movie-induced tourism is a type of tourism when tourists visit places or attractions that are featured in cinemas (Busby & Klug, 2001). People who watch tourists' destinations in movies are more likely to visit the places (Riley & Van Doren 1992) and there are several examples of such kinds of tourism in Rewtrakunphaiboon (2009).	Khottadihi opencast project was a normal coal mine before 2013. It became famous overnight after the shooting of the Bollywood movie *Gundey* (The Goons) (2014) took place at this site. The movie casts several nationally and internationally acclaimed actors and the incident of movie shooting at Khottadihi OCP was covered by national media such as 'The Statesman' and 'India Today' (see, Siddiqui, 2013 and Mankermi, 2013). Ever since local people started visiting this mine.

Source: *Prepared by the author with information from various sources.*

[6] www.wbhc.in

[7] www.ismenvis.nic.in

MATERIALS AND METHODOLOGY

It is a field-based study where major information regarding the mining sites is obtained from the field observation and consultation with administrative stakeholders during January 2021. No questionnaire is prepared to collect information. Photographs are taken by the author during the field survey.

After field visit and bibliographic consultation assessment of tourism potentiality is divided into two parts, i.e.,

I. Identification of tourism attractions at the site and
II. Analysis of the tourist value of the site.

For the identification of tourism attractions, the work of Jolliffe and Conlin (2011) has been followed with slight modification. Inspired by Swarbrooke's (2002) general tourist attraction categories, Jolliffe and Conlin (2011) have clubbed mining-related attractions into four categories (p. 244) such as

a. natural attractions,
b. human-made but not originally designed for visitation,
c. human-made and designed for visitation, and
d. special events.

This study almost followed the same categorisation, and identify the mining tourism attractions at the selected coal mines with the addition of activity and experience in the fourth category along with special events.

The touristic value of the site is assessed through certain criteria. The criteria selection is mainly based on Kubalíková (2017) with modifications in certain places. Kubalíková (2017) prepared a set of criteria to assess geotourism and geoeducation potential of mining landscape based on previous publications like Doktor et al. (2015) and Brilha (2016). Unlike Kubalíková (2017), the general description of the site is replaced by introducing the categorisation of Jolliffe and Conlin (2011) to identify the tourism attractions.

Kubalíková (2017) presents seventeen criteria based on five different values such as scientific value, educational value, touristic value, added value, and conservation value. This study focuses only on the tourism attractiveness and the degree of preservation of the sites, and not on the geoedutation, hence considered only the criteria under tourist value and preservation value.

To assess the touristic value, Kubalíková (2017) put four questions or criteria, such as accessibility, safety, tourist infrastructure, and viewpoints and visibility. Whereas, in the current study, three more criteria like connectivity, availability of tour guides, and procedure of obtaining a permit, are added. And Kubalíková's (2017) one criterion i.e., 'viewpoint and visibility' is removed because it does not apply to some of our case studies such as underground mines.

For assessment of conservation value, Kubalíková (2017) took two criteria, i.e., 'existing legislative protection' and 'current threats'. This work considers the later one with slight modification keeping a criterion named 'degree of preservation' while neglecting the first one because currently none of the case studies is enjoying any legislative protection.

Thus, this research has seven criteria in total to assess the tourism potentiality. Equal weightage is assigned to each criterion. The criteria are structured as questions and for each criterion 3 pre-defined answers are prepared to indicate the availability of the criteria with scores ranging from 0-1.0, where 1.0 stands for high; 0.5 stands for medium, and 0 stands for low. Hence the total score of a site would range from 0-7.0. A similar set of criteria is used in Singh and Ghosh (2021). The only differences are, in that study the 'degree of preservation' is not considered, whereas, it has a separate criterion for the 'visibility and viewpoint'. In addition, unlike the current research, no weightage is given to the assessment criteria discussed in Singh and Ghosh (2021).

For the demarcation of the mining tourism circuit, the guidelines of the Ministry of Tourism, Government of India are followed. In India, to encourage circuit tourism in 2014-15, the *Swadesh Darshan* scheme is launched for theme-based development of tourist circuits in the country.[8] Tourism circuit, as defined by the Ministry of Tourism, Government of India (2012), is a route that connects at least three tourism destinations of the same theme that are neither located in the same town or city nor far from each other, and tourists who visit one destination are encouraged to visit all of the destinations within the route. Road network analysis is done to understand the feasibility of circuit development with the help of QGis 3.10 software and open street map. Where the distance between each site and distance from the major towns and cities are examined.

[8] www.swadeshdarshan.gov.in

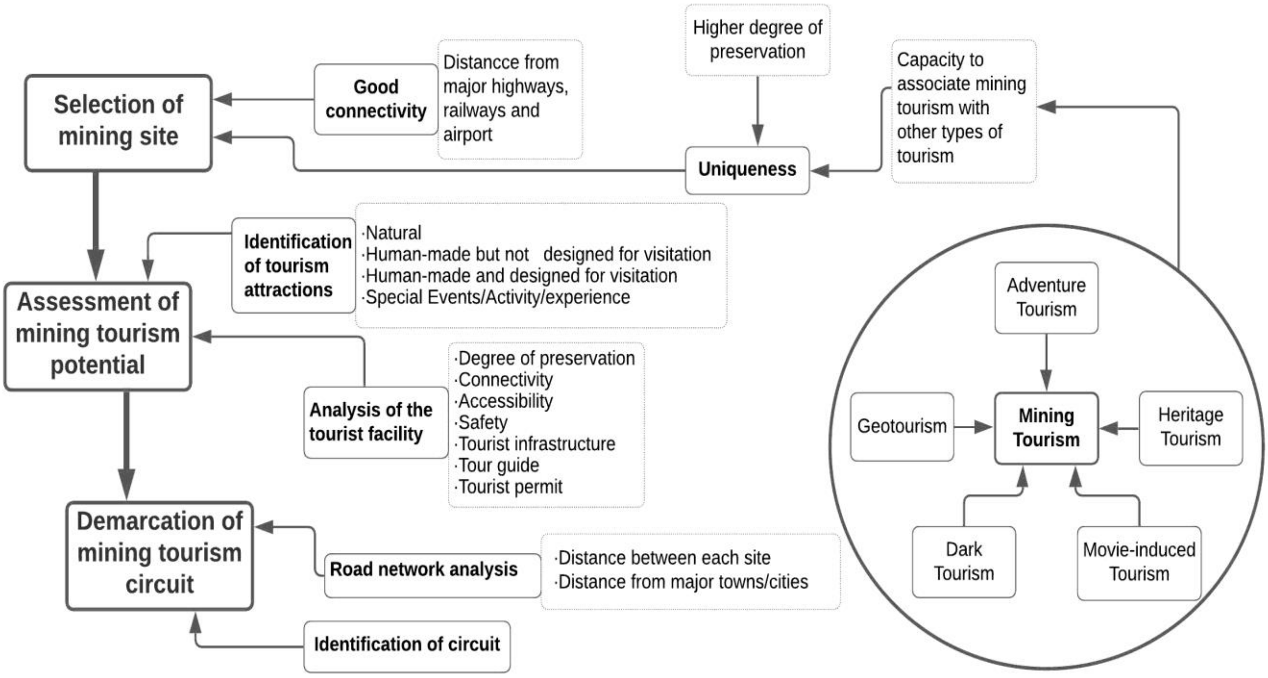

Figure 1. *Research framework*

FINDINGS

In Raniganj coalfield, commercial mining was started as early as 1774 by the Englishmen and it still is one of the important coalfields located in eastern India (CMPDIL,1984). This coalfield is spread over parts of West Bengal and Jharkhand states of India and produced over 50 million tonnes in the year 2019-20.[9] This coalfield is an extended part of the Chhota Nagpur plateau and consisted of the Gondwana rock of Raniganj measures (Murthy et al., 2010). At present, almost 100 mines are operating in this coalfield under Eastern Coalfield Limited (ECL), a subsidiary company of Coal India Limited (CIL)[10] and five out of them are chosen to examine the preparatory potential for mining tourism based on their distinct pull factors.

[9] www.easterncoal.gov.in

[10] www.easterncoal.gov.in

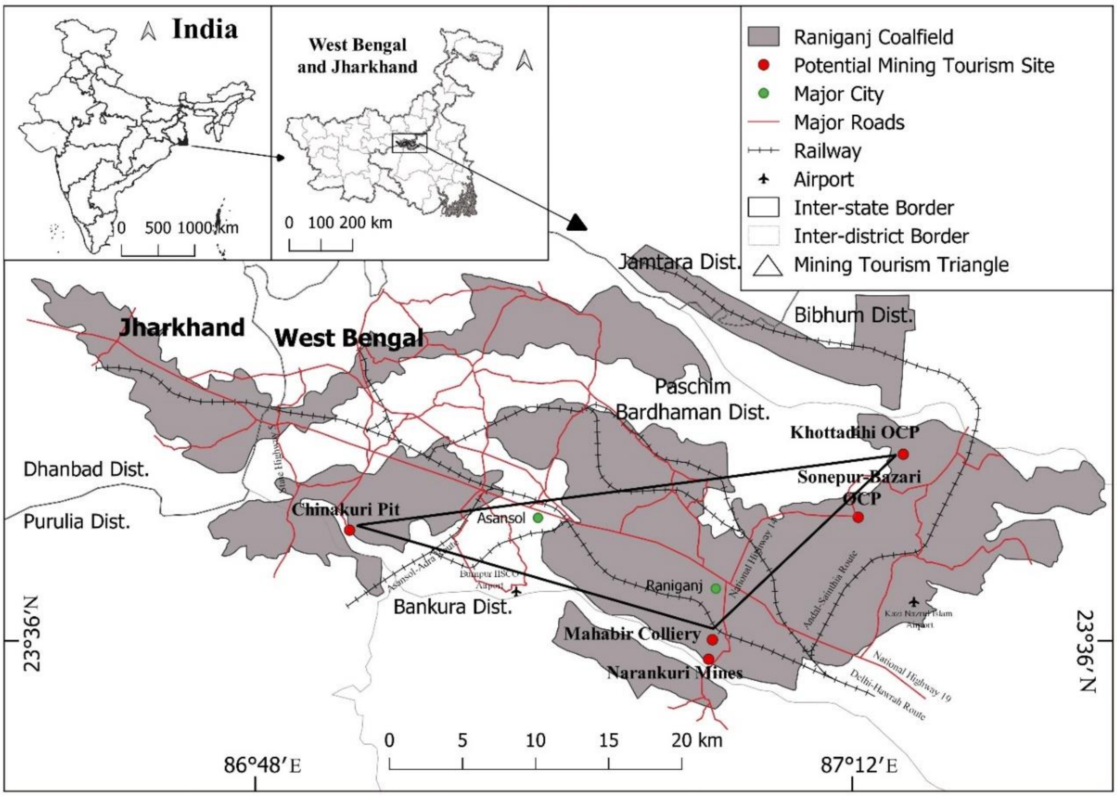

Figure 2. *Location map of the study area with potential mining tourism sites and important transport networks*

(Source: *Prepared on QGis 3.10 with the help of open street map and map provided by Central Mine Planning and Design Institute (CMPDIL), Asansol.)*

Assessment of Mining Tourism Potential of Selected Mines

Chinakuri Pit

Adventure tourism is always kept at the centre of mining tourism by the advocates who differentiate mining tourism from geotourism or industrial tourism and perceive the former as a form of adventure and cognitive tourism that is based on visitors' experiences and activities (Rybár & Štrba, 2016; Rybár & Hronček, 2017). The underground visit is a great example of adventure tourism because it provides a very different and mysterious experience than what is above-ground (Spalević & Igračev, 2011). Therefore, tourism attractions, that are found at Chinakuri pit, are capable to build insights about underground mining functionality based on experiences and activities. Activities like underground trek, vertical and horizontal movement of the visitors using the mine's transport system would be a great way to develop mining adventure tourism in this mining site. The 'well preserved' and 'well-connected' status of this mining site indicates that there is no risk of deterioration in near future, and the site is easy to visit from local cities and towns, which may act in favour of tourism development. Whereas, the development of tourist infrastructure and assurance of visitors' safety needs to work on for the successful development of adventure-based mining tourism. However, according to the general manager Mr. B. Sarkar only 10% to 20% coal reserve is explored here, which may push decision-makers towards reopening the mine instead of exploring tourism (Ateş, 2016).

Table 2. *Tourism attractions at Chinakuri Pit*

Natural	Human-made but not originally designed for visitation	Human-made and designed for visitation	Events/Activity/ Experience
• Structure and inclination of coal seam underground. • Dyke intrusion within the coal seam.	• Winding machine operating since 1959. • Head tower of winding machine • A fan of 7 meters in diameter regulation underground air circulation. • Underground locomotive system • Underground points where River Damodar is flowing overhead. • Mining machinery scraps on the surface.	• No significant element is designed for visitation so far.	• Experiencing a 2-minute 11-second journey to the mine's base at 613-meter depth in an elevator with a speed of 4 meters/sec. • Experience of an underground locomotive transport system through the track. • Experience of a surface-under-surface telephonic operation.

Table 3. *Tourism facilities at Chinakuri Pit*

Criteria	Questions	Status/Answer	Score*	Remarks
Degree of Preservation	What is the status of preservation?	Well-preserved	1.0	Though production is ceased in this mine the site is regularly maintained by the staff appointed there.
Connectivity	What is the status of connectivity?	Well-connected	1.0	This is located about 17 km away from Asansol city. Connected with the main city by bus service. One can easily drive to this place.
Accessibility	What is the status of accessibility?	Limited access	0.5	One needs to get permission from the General manager to get access to the mine.
Safety	Is there any safety problem?	Some specific limitations	0.5	It is an underground mine so safety measures like wearing a helmet, boots, and carrying safety lamps are mandatory.
Tourist infrastructure	What is the status of tourist facilities? (such as restroom, parking, marked trails, etc.)	No tourist infrastructure	0	This place is not designed for tourism.
Tour guide	Is there any tour guide available who can assist the visitors?	Guidance available	0.5	No professionally appointed tour guide available, but the officials or miner help visitors to explain various activities.

Permission guidelines	How tough it is to get permission to visit the site?	Permission can be granted but it is not an easy process.	0	One has to sign a bond stating that mine authority would not be responsible for any physical damage.
*1.0 stands for high; 0.5 stands for medium, and 0 stands for low.				**Total Score: 3.5**

Narankuri Mines Remnant

Mines and mining landscapes for a long time were associated with fear and darkness and neither considered heritage nor preserve-worthy (Edward & Coit, 1996; Conlin & Jolliffe, 2011b). But eventually, it became a specialised form and integrated part of industrial heritage (Cole, 2004). India holds a considerably long history of mining starting back in 1774 (CMPDIL,1984), yet mines are merely considered heritage in the country. Narankuri mines were one of the oldest coal mines in India. And the first place where a native Indian (Prince Dwarkanath Tagore) entered the mining business breaking the monopoly of the Englishmen (CMPDIL,1984). From this perspective, Narankuri mines are important assets of the mining heritage of India and already got recognition from the local authority. The potential tourism attractions at this site revolve around built heritage that needs immediate protection. An 'overburden' dumping site is established very close to the *Kuthi Bari*, garbage disposals and community toilets are built within the haulage room, which poses threats to their sustainability. It is also an indication of ignorance of the local people and mismanagement of mining heritage. However, the table 5 shows that other factors like connectivity, accessibility, safety issues are in favour of tourism. Therefore, if the right planning is done and executed properly to protect the mining history, built heritage, and infrastructure development, then mining heritage tourism is possible at Narankuri.

Table 4. *Tourism attractions at Narankuri Mine Remnant*

Natural	**Human-made but not originally designed for visitation**	**Human-made and designed for visitation**	**Events/Activity/Experience**
• Riverbank with the remnant of the old port used for coal transportation	• The remnant of *Kuthi Bari* the main office building of Prince Dwarakanath Tagore. • Old haulage room with a big banyan tree holding it. • Openings of the mine covered with bushes.	• A statue of Prince Dwarakanath Tagore with written information about the Narankuri mine.	• Experience being amidst one of the oldest coal mines in India, and the oldest coal mine owned by a native Indian person.

Table 5. *Tourism facilities at Narankuri Mine Remnant*

Criteria	Questions	Status/Answer	Score*	Remarks
Degree of Preservation	What is the status of preservation?	Moderately preserved.	0.5	This site is recently recognised as heritage by the state government, however, monuments like the *Kuthi Bari* and haulage room are deteriorating and need protection.
Connectivity	What is the status of connectivity?	Moderately connected	0.5	Only 5 km away from Raniganj town. But well-constructed roads are not present everywhere. No public transport is available.
Accessibility	What is the status of accessibility?	Accessible without any problem	1.0	This is an abandoned mine so anyone can go and visit the place.
Safety	Is there any safety problem?	No safety problem	1.0	No safety measure is required unless one tries to enter the old mining caves which are not recommended.
Tourist infrastructure	What is the status of tourist facilities? (such as restroom, parking, marked trails, etc.)	No tourist infrastructure	0	Though a statue and information board are installed but no tourist infrastructure like a proper road or a gateway is made.
Tour guide	Is there any tour guide available who can assist the visitors?	No tour guide available	0	No official tour guide is appointed, but locals are spontaneous to share their knowledge which is sometimes erroneous
Permission guidelines	How tough it is to get permission to visit the site?	No permission required	1.0	The site is poorly maintained and degrading very fast, because of open access to the site.
*1.0 stands for high; 0.5 stands for medium, and 0 stands for low.				**Total Score: 4.0**

Mahabir Colliery

The phenomenon of dark tourism, worldwide, has expanded a lot over the last century (Stone & Sharpley, 2008). In India too, there are several well-established tourist destinations such as Jaliwanwala Bagh, Punjab; Cellular Jail, Andaman, and Nicobar Islands, etc. which are characterised by death, sufferings, and accidents (Dey, 2018). Mining accidents are very common in the country, between 2015 and 2020 around 200 cases of fatal accidents are recorded by ENVIS Centre of Environmental Problems of Mining.[11] But what makes Mahabir colliery different is its outstanding rescue operation. On 13 November 1989, an accident occurred at Mahabir colliery which led to the death of six workers while another 64 workers were trapped inside and rescued after four days.[12] The rescue mission was a huge success and the rescue technique was acclaimed and used internationally afterward (Banerjee, 2010). Stone and Sharpley (2008) project dark tourism as a tool to

[11] www.ismenvi.nic.in

[12] www.ismenvi.nic.in

reduce and normalise the dread and grief of death, it reminds the visitors that they are the fortunate ones (Korstanje, 2015). The unprecedented success of Mahabir colliery's rescue mission would give people hope and establish faith in humankind. It would share positivity through its dark history. Although, for proper use of the site for tourism, generation of basic infrastructure and cleanliness is required.

Table 6. *Tourism attractions at Mahabir Colliery*

Natural	Human-made but not originally designed for visitation	Human-made and designed for visitation	Event/ Activity/Experience
• No such natural attraction is present.	• The rescue holes. • The mouth of the underground mine. • The headgear of the mine. • The boiler, which was used to produce electricity for the haulage machine.	• The capsule, which was used to rescue the miners*. • Martyr memoir*. • *(Both are kept in Kunstoria area office)	• Experiencing the place where a horrifying mining accident was held, but human willpower and courage had successfully overcome that.

Source: Prepared by Author

Table 7. *Tourism facilities at Mahabir Colliery*

Criteria	Questions	Status/Answer	Score*	Remarks
Degree of Preservation	What is the status of preservation?	Moderately preserved	0.5	The rescue capsule is well-preserved ex-situ, but the rescue hole is fully covered under thick bushes and almost impossible to identify.
Connectivity	What is the status of connectivity?	Moderately connected	0.5	This site is very near to the Raniganj town, so one can easily visit the place. Though the location of the rescue hole is covered by jungle so it is not easy to notice.
Accessibility	What is the status of accessibility?	Moderately accessible.	0.5	Some elements of this site can be accessed easily like the display of the capsule. But the rescue holes are fully covered by jungle and very difficult to visit.
Safety	Is there any safety problem?	Some safety issues present	0.5	The rescue holes are covered with thick bushes and not covered properly so one has to be very careful while exploring the place.
Tourist infrastructure	What is the status of tourist facilities? (such as restroom, parking, marked trails, etc.)	No tourist infrastructure	0	Not designed for tourism.
Tour guide	Is there any tour guide available who can assist the visitors?	No tour guide available	0	No official tour guide is available but local people help to reach the site.
Permission guidelines	How tough it is to get permission to visit the site?	No permission required	1.0	This is a closed mine so no permission is needed.
*1.0 stands for high; 0.5 stands for medium, and 0 stands for low.				**Total Score: 3.0**

Sonepur-Bazari OCP

Table 8. *Tourism attractions at Sonepur-Bazari OCP*

Natural	Human-made but not originally designed for visitation	Human-made and designed for visitation	Event/Activity/ Experience
• Mining landscape with undulation giving the impression of hills and valleys. • A geological formation like Raniganj stratigraphic formation, Gondwana sediment, different types of rock structures. • Overburden dumping heaps depicting different stages of the succession of different plant species. • Artificial water bodies at the bottom of the mine. • Fossils of Glossopteris. • The occasional sight of wild lives like python, fox, wild boar, and porcupine.	• Huge pieces of machinery like hydraulic shovels, dragline, dumper, loaders. • Mining excavation. • Walking trails to reach different horizons of the mine.	• No significant element is present. Earlier there were three viewpoints, that are now abolished due to the extension of mine.	• Walking through the mine trail and exploring the mining landscape. • Watching the functionality of different types of machinery. • Acquiring knowledge of geology and mining processes and technology.

In academic writings, mining tourism is commonly dealt in association with geotourism probably because, mining landforms are the most attractive landforms from the viewpoint of geotourists (Kubalíková et al., 2016). It also fits well with other types of geotourism (Gürer et al., 2019), while projecting mechanically exposed geological structures, fossils, excavation, and dumping sites as geo-attractions (Singh & Ghosh, 2021). Therefore, Kubalíková et al. (2016) considered mines and quarries as anthropological landforms which poses the geological diversity calling them secondary geodiversity (p. 226). In Sonepur-Bazari OCP diverse range of natural, human-made, and experience-based geo-attractions are available which are in good condition and have no serious threat of deterioration. It has excellent connectivity and a good location for tourism development. This site is also popular among nature and geoscientists and mentioned in numerous local to global level publications (Biswas et al., 2013; Kumar et al., 2015; Gautam et al., 2016; Majumder & Palit, 2017; Mondal & Mistri, 2021) which rise its scientific value as a tourist destination. On the other hand, frequent visits of the academician for research purposes to Sonepur-Bazari OCP somehow make the workers prepared for handling tourists in the future.

Table 9. *Tourism facilities at Sonepur-Bazari OCP*

Criteria	Questions	Status/Answer	Score*	Remarks
Degree of Preservation	What is the status of preservation?	Well preserved	1.0	This is an active mine so there is no sign of deterioration but sometimes fossils get damaged from mining activity.
Connectivity	What is the status of connectivity?	Well-connected	1.0	This mine lies beside National Highway 14. Located around 15 km away from Raniganj town.
Accessibility	What is the status of accessibility?	Limited access	0.5	This is a working mine hence accessibility is restricted so that the safety of the visitors and production of coal does not get affected.
Safety	Is there any safety problem?	Some specific limitation	0.5	Visitors should be kept at a safe distance from working machinery.
Tourist infrastructure	What is the status of tourist facilities? (such as restroom, parking, marked trails, etc.)	No tourist infrastructure	0	Being an active mine no tourist infrastructure is developed however, a visit to the mine for education and research purposes is entertained.
Tour guide	Is there any tour guide available who can assist the visitors?	Guidance available	0.5	No professionally appointed tour guide is available, though the officials or miner could be given the charge to explain various activities temporarily.
Permission guidelines	How tough it is to get permission to visit the site?	Permission can be easily granted	0.5	A written permit is required from the higher authority.
*1.0 stands for high; 0.5 stands for medium, and 0 stands for low.				**Total Score: 4.0**

Khottadihi OCP

Movie and tourism are both well-established industries that sell pleasure and help their clients to cope with everyday monotony (Gjorgievski & Melles Trpkova, 2012). The best campaign for a tourist destination is through the film shot at that location (Riley & Doren, 1992). It does not only help in cutting the cost of advertisement and increasing the number of visitors, but it may also act as a tourist pull factor in the places which are otherwise considered ill-favoured for tourism (Busby & Klug, 2001). An example of this kind of incident is observed at Khottadihi OCP. This mine probably, never considered as a place visit-worthy unless a Hindi movie shooting took place here. Many people gathered to witness the shooting while many showed up to visit the mine after watching it on the silver screen (Mankermi, 2013). Though the main allure for the visit is movie-induced but being an active mine, it also offers an overview of how mines function. From this point of view, the site shows sufficient potential for tourism development. Yet, it is unfortunate that little attention has been paid to the development of tourism. Moreover, the ongoing excavation process threatens the places where the movie was shot, and if not protected these locations may be excavated soon leaving no trace or resemblance of the shooting spots. Which may lead to tourist dissatisfaction and a gradual decrease in tourist inflow.

Table 10. *Tourism attractions at Khottadihi OCP*

Natural	**Human-made but not originally designed for visitation**	**Human-made and designed for visitation**	**Event/Activity/ Experience**
• Excavated area and artificial hillocks. • Exposed rock structures.	• Spots where the shooting of the movie took place. • General mining activities. • Different machinery such as drill machine, dragline, dumper, loader, etc. • Railway track carrying coal-loaded wagons.	• There is no significant attraction available which is made for visitors.	• Experiencing the places in real life which are seen on screen.

Table 11. *Tourism facility at Khottadihi OCP*

Criteria	**Questions**	**Status/Answer**	**Score***	**Remarks**
Degree of Preservation	What is the status of preservation?	Well-preserved	1.0	Being an active mine, this site is well preserved.
Connectivity	What is the status of connectivity?	Well-connected	1.0	This site is also located very close to national highway 14. Specific spots are also easily noticeable or else workers could show the visitors.
Accessibility	What is the status of accessibility?	Limited access	0.5	Work is still in progress so not fully accessible due to safety issues.
Safety	Is there any safety problem?	Some specific limitations	0.5	Mining activities can be observed from a safe distance.
Tourist infrastructure	What is the status of tourist facilities? (such as restroom, parking, marked trails, etc.)	No tourist infrastructure	0	Though local people sometimes visit this mine yet no tourism infrastructure is developed.
Tour guide	Is there any tour guide available who can assist the visitors?	Guidance is available.	0.5	Officially recruited guidance is absent but staff at the mine would help.
Permission guidelines	How tough it is to get permission to visit the site?	Permission can be easily granted	0.5	No permission is required to visit this mine beforehand. Yet permission may be required or even declined at some specific spots.
*1.0 stands for high; 0.5 stands for medium, and 0 stands for low.				**Total Score: 4.0**

Figure 3: *Photographs of the potential mining tourism sites, Raniganj Coalfield*. (a) Mine cage and the signboard at Chinakuri pit. b) Old haulage room at Narankuri. c) Rescue capsule used in 1989 at Mahabir colliery. d) Excavated coal seam at Sonepur-Bazari OCP. e) Dragline-dumper combined operation at Khottadihi OCP.)
Source: Photographed by the author.

Results and Evaluation

Tourism attractions are fundamental for tourism development and consist of all those elements of a place that motivate people for visitation (Lew, 1987). Therefore, an examination of the tourism attractions available at the mining sites is useful to fathom the potential of tourism. From tables 2, 4, 6, 8, and 10, it appears that each mining sites are distinct and their potential tourist pull factors are diverse ranging from hardcore human-made monuments and machinery to unique geo-structures. Very little to no modification is made to the attractions for tourism development, hence, left original. The authenticity and diversity of the sites may encourage visitors of different tastes to visit all the sites to get a holistic insight into the mining landscape.

Considering the total scores for each mine on a 0-7 scale, it is found the highest score (4.0) is obtained by the abandoned mine (Narankuri) and running open cast mines (Sonepur-Bazar and Khottadihi), followed by underground mines i.e., Chinakuri (3.5) and Mahabir (3.0). The mean of the total scores of the select mining sites is 3.7 which is 52.85% of the full score (7.0). The result concludes that Raniganj coalfield has a 52.85% potential for mining tourism development (based on the five particular sample mines on).

Table 12. *Assessment scores of the mining sites*

Criteria	Score				
	Chinakuri pit	**Narankuri mine remnant**	**Mahabir colliery**	**Sonepur-Bazari OCP**	**Khottadihi OCP**
Degree of Preservation	1.0	0.5	0.5	1.0	1.0
Connectivity	1.0	0.5	0.5	1.0	1.0
Accessibility	0.5	1.0	0.5	0.5	0.5
Safety	0.5	1.0	0.5	0.5	0.5
Tourist infrastructure	0	0	0	0	0
Tour guide	0.5	0	0	0.5	0.5
Permission guidelines	0	1.0	1.0	0.5	0.5
Total Score	**3.5** (50%)	**4.0** (57.14%)	**3.0** (42.85%)	**4.0** (57.14%)	**4.0** (57.14%)

Score: 1.0 stands for highly favourable; 0.5 stands for moderately favourable, and 0 stands for least favourable.

Source: Prepared by Author

The degree of preservation and maintenance is comparatively high at the working mines, whereas, abandoned mining sites pose lesser risk. All the mining sites consist of authentic tourist attractions, good connectivity, and accessibility, but tourism infrastructure is merely developed. Not a single mine has essential services like toilet facilities, cafeteria, restroom, or separate parking. Neither a professional tour guide is available. To increase the attractiveness of the sites as tour destinations, proper tourism infrastructure and reduction of potential risks is necessary. The establishment of a mining museum probably increases its tourism value among the visitors. The awareness and willingness of policy makers, tourists, and local stakeholders will play a vital role in the successful development of mining tourism at Raniganj coalfield (Singh & Ghosh, 2021) especially in the form of tourism circuit.

Mining Tourism Circuit

In India, the '*Swadesh Darshan*' scheme has been launched under the 'Product Infrastructure Development for Destinations and Circuits' (PIDDC) programme to encourage theme-based tourism and fifteen themes for development tourism circuit have been identified so far.[13] And there is a possibility of incorporation of many more theme-based tourism circuits. Mining tourism could be certainly one of the themes. This study tries to demarcate a local tourism circuit by incorporating the potential mining tourism sites discussed above through road network analysis.

Table 13. *Distance of the sites from each other and distance of the sites from main urban centres*

Distance (Km)	CKP	NKMR	MHC	SBOCP	KHOCP
CKP	**0**	38	34	48	54
NKMR	38	**0**	04	20	26
MHC	34	04	**0**	18	24
SBOCP	48	20	18	**0**	06
KHOCP	54	26	24	06	**0**

Distance (Km)	CKP	NKMR	MHC	SBOCP	KHOCP
ASN	14	24	20	31	37
RNG	32	6	2	16	22

CKP- Chinakuri pit; **NKMR-** Narankuri mines remnant **MHC-** Mahabir Colliery **SBOCP-** Sonepur-Bazari opencast project **KHOCP-** Khottadihi opencast project **ASN-** Asansol city **RNG-** Raniganj town

Source: Prepared by Author

The road network analysis shows that the distance between two respective tourism sites as well as the distance from the nearest town or city ranges from 4km to 54km and 2km to 37km, respectively. These locations can be travelled easily. Moreover, most of the sites are located very near to the important highways (see figure 2) and well connected to the nearby urban centres by bus services. The tourism attractions in these mining sites are discretely located and visitors do not need to spend a lot of time in one location, instead, they could visit all the sites during one tour. The location of the potential mining tourism sites forms a perfect mining tourism triangle (see figure 2). Considering the distance and connectivity within the mining sites, this study suggests two possible mining tourism circuits, i.e.,

a) Chinakuri---Mahabir---Narankuri---Sonepur-Bazari---Khottadihi; this route would be appropriate for the visitors travelling through railways and roadways. The Delhi-Hawrah Rail route and National Highway 19 pass through Asansol City, which is only 14 km from the first destination of the circuit. A visitor can stop at Asansol to visit the first destination (14 km); come back to the city (14 km); reach Raniganj by road (18 km); visit the next two destinations which are close to the town (6 km); take the

[13] www.swadeshdarshan.gov.in

National Highway 60 and visit the last two destinations (26 km). The visitors have to travel 78 km to visit all the destinations via this circuit.

b) Khottadihi---Sonepur-Bazari---Mahabir---Narankuri---Chinakuri; this circuit would be a better option for the tourists reaching the locality by air. Kazi Nazrul Islam International Airport is 24 km away from Khottadihi. A visitor can start from this point then visit Sonepur-Bazari OCP (6 km); then through National Highway 60 reach Raniganj (16 km) visit the next two destinations Mahabir (2 km) and Narankuri (4 km); come back to Raniganj (6 km); reach Asansol via railway or roadway (18 km); end the tour at Chinakuri (14 km). A total distance of 90 km needs to be travelled by the visitors when taking this circuit.

CONCLUDING REMARKS

The tourism circuits in India under the *Swadesh Darhsan* schemes primarily follow the trend of popular tourism and mostly based on religio-spiritual (Buddhist circuit, Krishna circuit, Sufi circuit, etc.) and natural (Himalaya circuit, Coastal circuit, Desert circuit, etc.) themes[14] and little attention is paid to enhance special interest tourism. The concept of mining tourism, however, is a recent addition to the Indian tourism sector, where policies are made to repurpose mining sites as eco-parks following the ecotourism line[15] which, as this paper claims, is not enough to explore the true touristic value of the mining sites.

That is why in this study, the compound and more inclusive relation of mining tourism with other types of niche tourism types such as adventure tourism, heritage tourism, dark tourism, geotourism, and movie-induced tourism is examined. For this purpose, five mining sites from Raniganj coalfield, India are assessed where each mine represents one form of the tourism mentioned above. These mines are also selected based on their comparatively higher degree of preservation and good connectivity.

During the bibliographic consultation for this research, it is found that the association of geotourism and mining tourism is the most common association made in academic literature followed by the association between 'mining tourism and heritage tourism' and 'mining tourism and adventure tourism'. Beside these associations, this study brings forth and highlights the interconnectedness of mining tourism with dark tourism and

[14] www.swadeshdarshan.gov.in
[15] www.coal.nic.in; www.bcclweb.in and www.wclnucleus.wordpress.com

movie-induced tourism. In other words, present study tries to establish a rational and systematic connection of mining tourism with some other forms of tourism and justifies the connections with examples. Following the line of Gürer et al. (2019), this type of association can be called 'compound mining tourism'.

The tourism potentiality assessment results show that the sites are capable of offering various types of mining-related insights and experiences to visitors. Which in turn would make use of otherwise unproductive land and equipment. Moreover, the initiation of tourism would help in the preservation of mining heritage and employment generation for the locals. The mean of the total scores of the mining sites reflects that Raniganj coalfield presently is slightly over 50% potential for mining tourism development thanks to the diversity of tourism attractions, higher degree of preservation, good connectivity, and accessibility. However, its susceptibility to have lower score is because of certain risk factors and poorly constructed tourism infrastructure, which make these sites less attractive as tourism destinations (Swarbrooke, 2002). For a better result, systematic tourism planning and development of particular theme-based tourism circuit might be helpful. For example, when visitors reach to one site, they would be encouraged to visit other sites, too. Thus visitors could get a holistic insight into mining heritage, mining technology, mining community, and mining landscape. Moreover, in this way, the development of one site would positively influence the development of other sites (Ministry of Tourism, India, 2012). Yet, for successful mining tourism development in this region, awareness of the stakeholders and policy-makers and the willingness of visitors to visit the sites are important. Constructive awareness campaigns may help in this regard (Jaafar, 2016).

To assess the tourism potentiality of the study area, this research relied on quantitative methods aided with field observation. Three characteristics of the examined sites are taken into consideration i.e., its attractiveness or pull factors; touristic value; and the linkages with other sites and major cities and towns. However, the primary factor for tourism development is the presence of tourism attractions at the site (Lew, 1987), hence the identification of tourism attraction is the utmost important task to initiate the process of tourism development. Tourist facilities, infrastructures, and linkages can be built later on to speed up the process.

This study relies on simple fact-based criteria that indicates the physical feasibilities of tourism development and produces a comparatively generalised result. Therefore, it is best for assessment of mining tourism potential at the initial stage or prior to tourism development. The proposed criteria give a lucid vision of what is already available and what is needed to start a tourism project. However, complex social and psychological aspects like the perception of potential tourists, stakeholders' and experts' opinions, and political connotations at the local level are not considered in the assessment, which possibly be more important determining factors for tourism development. Thus, further studies with advanced and inclusive criteria may come out with more realistic results.

The result indicates that there are possibilities for mining tourism development after examining available tourism attractions, the touristic value of the sites, and their capability to connect mining tourism with other forms of tourism. Despite the limitations, the significance of this work remains in the facts that it brings forth the approach of studying mining tourism from the perspectives of other niche tourisms; it draws attention to the aspect which has the potentiality to contribute to regional development, sustainable tourism, and mining management; and most importantly, it builds the foundation to warrant further research.

ACKNOWLEDGMENT

The author acknowledges Mr. Soumendra Kundu (Chief General Manager, Sodepur Area, ECL), Mr. B. Sarkar (Manager, Chinakuri mine), Mr. Amitabha Das (Manager, Amritnagar Colliery) for providing important information and access to the mines. The author is equally thankful to Mr. Tapas Kumar Ghosh, Mr. Palash Ghosh and Mr. Debopriya Mondal for their help and support during field visit. The author thanks the anonymous reviewers and the editor for their helpful suggestions on the earlier draft of the manuscript.

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DOI: 10.30519/ahtr.899626

Advances in Hospitality and Tourism Research (AHTR) 2021
An International Journal of Akdeniz University Tourism Faculty Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online) 368-389
Webpage: http://www.ahtrjournal.org/

SMALL HOTEL LOCATION SELECTION PROBLEM: THE CASE OF CAPPADOCIA

Tekiner KAYA[1]

Department of International Trade and Logistics, Nevsehir Hacı Bektaş Veli University, Turkey

ORCID: 0000-0001-6136-5028

ABSTRACT

Identifying an appropriate location is one of the most significant factors in determining the success of a facility. This paper focuses on the selection of the most appropriate small hotel location in inner Cappadocia, based on seven destination-specific criteria. The Pivot Pairwise Relative Criteria Importance Assessment (PIPRECIA) and Additive Ratio Assessment (ARAS) methodology is utilized to obtain the relative criteria weights and the final ranking of six alternative small hotel locations. The results indicate that the most important factors in small hotel location selection in Cappadocia are revenue per available room (REVPAR) potential, investment amount and view of hot air balloon flights. Goreme and Uchisar are identified as the most appropriate locations for small hotel investment in the region.

Article History

Received 19 March 2021
Revised 6 July 2021
Accepted 17 August 2021
Published online 30 Sep. 2021

Keywords

small hotel location selection
Cappadocia
PIPRECIA
ARAS

INTRODUCTION

The Facility Location Problem (FLP) models are utilized to solve location selection problems in variety of business environment to take advantage in competition. Based on the FLP model description and content, hotel location is very important factor in tourism industry that affects facility revenue. Luo and Yang (2016) found that hotel location is directly related to occupancy and average daily rate, which means that it is also directly related to the hotel revenue. It is important to identify an appropriate location for a hotel because of the relocating and reconfiguring is costly and complex process (Urtasun & Gutiérrez, 2006). Since hotel industry is a service industry, the effective location selection in this sector plays an important role on attracting visitors and achieving success amid extreme

[1] Address correspondence to Tekiner Kaya (Ph.D.), Department of International Trade and Logistics, Faculty of Business Administration and Economics, Nevsehir Hacı Bektaş Veli University, Turkey. E-mail: tekiner.kaya@nevsehir.edu.tr

competition (Yang et al., 2012). Location is a factor that strongly influences travellers' hotel selections (Lewis & Chambers, 1989; Rivers et al., 1991; Chu & Choi, 2000).

In the existing literature, studies have examined the factors that contribute to hotel location selection, including parking, transportation, proximity to tourist attractions, public service infrastructure, economic environment, development status of the region, agglomeration effect (It is considered to attenuate with distance when a decreasing impact is obtained the further away the rings) are from the location (Combes & Gobillon, 2015), and accessibility. Studies have also found that location selection criteria may vary by hotel type. For instance, Kalnins and Chung (2004) present that differing hotel star ratings were associated with different locations. Specifically, Yang et al. (2012) found that unbranded hotels and economy hotels (branded) are likely to be located close to upscale brand hotels. In addition, branded hotels operating in upscale segment are generally located in the same area. Accessibility criteria are also very important for luxury hotels, which tend to have central locations, whereas service diversification and proximity to restaurants are important factors for downscale hotels.

Small hotels are properties that are independently managed by the owners, who are referred to as tourism entrepreneurs (Sa et al., 2020). In Cappadocia, there are more than 400 small hotels with an average of 13 rooms (Nevsehir Provincial Directorate of Culture and Tourism reports, 2019). Cappadocia is located in a volcanic area; therefore, these hotels have cave rooms. The majority of the small hotels are family-run businesses, which are popular among visitors because they offer an opportunity to talk to residents and learn about the local culture and traditions. Baker et al. (2000) found that the large majority of small hotels have fewer than 100 rooms; however, the present study defines small hotels as those with fewer than 30 rooms. The reason for this discrepancy is that hotels with more than 30 rooms likely provide less opportunity for the managers to communicate with their guests in a facility located in a leisure or cultural tourism destination.

The Cappadocia region includes many destinations; the present study focuses on inner Cappadocia, which includes six sub-destinations in which travellers may seek accommodation: Urgup, Goreme, Uchisar, Avanos, Mustafapasa and Ortahisar (see Figure 1). In recent decades, the region has attracted investors' attention because of its high potential for the hospitality industry.

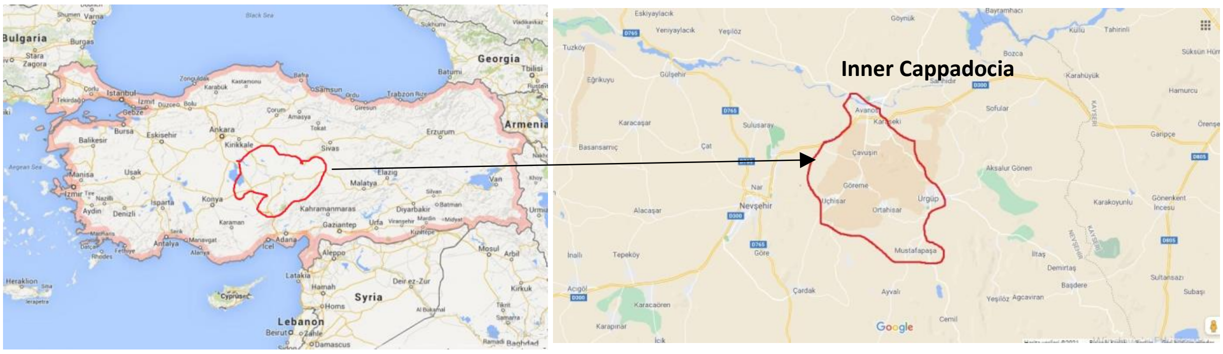

Figure 1. *Overview of the study area*

The prioritization of hotel locations requires a comprehensive analysis of potential locations and gathering information about the target visitor group of tourists (Yang et al., 2014). There are three primary destinations in the inner Cappadocia region that include the majority of small hotels: Goreme, Urgup and Uchisar. Additionally, there are three sub-destinations: Avanos, Mustafapasa and Ortahisar. All sub-destinations are in inner Cappadocia and are close to one another; however, each offers unique strengths and location-specific characteristics—such as room rate, investment amount, cave room quality, food and commercialization—that complicate investment decisions. The present study aims to identify the most appropriate small hotel location selection in Cappadocia by utilizing PIPRECIA (Pivot Pairwise Relative Criteria Importance Assessment) and ARAS (Additive Ratio Assessment Method) methodology. Hence, the criteria-based performance of sub-destinations of Cappadocia is going to be exposed for investors. Decision-making techniques have been applied for solving many business problems including the tourism sector such as Popovic and Mihajlovic (2018), Panahi et al. (2015), Pulido-Fernández et al. (2014), and Briedenhann (2009). Since hotel location selection decisions are very complex and costly (Urtasun & Gutiérrez, 2006), the methodology utilized in this study may shed light on decision-makers, policymakers, and investors.

The paper is organized as follows. A review of empirical studies and models that have analysed the hotel location selection problem is provided in section 2. Section 3 describes the two-stage PIPRECIA and ARAS methodology. The study scope, determinants of the hotel location selection process and data are presented in Section 4. Finally, the results are discussed in section 5, and conclusions are drawn in Section 6.

LITERATURE REVIEW

Investing in and focusing on a hotel's location in a new destination is important because the location of the hotel can help to increase profitability and market share (Chou et al., 2008). The process of choosing a hotel location is complex, and the multidisciplinary nature of the problem has been extensively studied in the existing literature. For example, Luo and Yang (2016) and Yang et al. (2014) found that sufficient hotel location is directly related to the average daily rate (ADR) and occupancy rate, which in turn contributes to a high revenue per available room (REVPAR). In two studies of customer satisfaction, Sim et al. (2006) and Lee & Jang (2011) found that visitors who stay in a hotel that is in a good location are more satisfied.

The existing literature regarding the problem of hotel location selection has focused on three main topics: demand, ADR potential, and customer satisfaction. Studies have generally focused on the determinants of hotel location that lead to profitability. For example, Molina-Azorin et al. (2010) and Peiró-Signes et al. (2014) have analysed the effect of hotel location choice on hotel financial performance. Puciato (2016) has examined the effect of hotel location on the cost of running the hotel. Additionally, Adam and Amuquandoh (2014) have analysed the hotel location selection problem from a managerial point of view. Researchers have emphasized the importance of transportation and public security in the design of a hotel. For example, Luo and Yang (2016) argue that competitive advantage is an essential factor in location selection in the hotel industry. Shoval et al. (2011) found that hotel location had a dramatic impact on the behaviour of tourists such as iconic tourism nodes and icon attractions. Finally, Yang et al. (2014) discuss the hotel location choice problems in terms of supply-demand perspective considering preferences of visitors, socioeconomic development of regions, distance to tourist attractions and convenience of transportation. However, no studies have yet focused on the hotel location selection problem among small hotels.

Multi-criteria decision-making (MCDM) models have been utilized to solve real-world location choice problems, including KEMIRA-M (Krylovas et al., 2014), ANP (Wu et al., 2010), TOPSIS (Huang & Peng, 2012), DEMATEL (Liu et al., 2012), PROMETHEE (Kaya et al., 2013), ELECTRE (Botti & Peypoch, 2013), –OWA (ordered weighted averaging) (Jeong et al., 2014) and DEA (Shirouyehzad et al., 2013). Adam and Amuquandoh (2014) assessed and analysed the factors that contributed to hotel location selection in Ghana using Principal Component Analysis (PCA). Additionally, Ilgin et al. (2015), Zavadskas et al. (2014), Govindan et al. (2015), Mardani et al. (2015) and Popovic et al. (2019) summarized the models that have been utilized in hotel location selection problems. The most utilized MCDM models are regression models, simultaneous equation models, individual evaluation models, hotel success models, statistical prediction models, factor analysis models, qualitative and cartography models, analytical hierarchy process (AHP) models and multi-dimensional models.

PIPRECIA and ARAS methodologies are used in many studies in the literature. For example, Stevic et al. (2021) used novel rough PIPRECIA methodology which is the extended version of the classical model, to determine the weight of 18 criteria of companies in the forestry industry. In another study, Memis et al. (2020) prioritized transportation risks via fuzzy PIPRECIA. Stevic et al. (2018) also used a fuzzy PIPRECIA model to evaluate information technology conditions for warehouses system. Dalic et al. (2020a) utilized PIPRECIA to measure the logistics performance of corporations. Tomasevic et al. (2020) used the fuzzy PIPRECIA model to determine the importance level of criteria for the introduction of high-performance computing in the Danube.

Some studies use PIPRECIA as a part of the multi-model approach. Dalic et al. (2020b) utilized fuzzy PIPRECIA and internal rough SAW model to select the green supplier. Veskovic et al. (2020) utilized fuzzy PIPRECIA and fuzzy EDAS to determine the best variant of the rail operator. Biswas (2020) used an integrated MCDM framework which consists of MABAC (Multi-Attributive Border Approximation Area Comparison), CoCoSo (Combined Compromise Solution) and PIPRECIA which is used to weights of criteria that are used to measure supply chain performance. Popovic et al. (2019) presented the extended version to PIPRECIA which is called PIPRECIA-E. Bakir et al. (2020) proposed a hybrid MCDM model based on the integration of PIPRECIA and MAIRCA (*Multi Attributive Ideal-Real Comparative Analysis*). PIPRECIA is utilized to determine the criteria weights on the evaluation of the operational performance of airlines. While PIPRECIA method is used to define the criteria weight, WASPAS method is applied for the ranking of alternatives. Dobrosavljevic et al. (2020) used PIPRECIA and FUCOM (full consistency method) to prioritize the most influential dimensions affecting the establishment of business process management. Fuzzy PIPRECIA is used to obtain more accurate criteria weight. Markovic et al. (2020) developed a novel integrated model that consists of fuzzy PIPRECIA and CRITIC (criteria importance through intercriteria correlation). Nedeljković et al. (2021) used PIPRECIA and MABAC (Multi-Attributive Border Approximation Area Comparison) models to rank the supplier. PIPRECIA is utilized to weight criteria and sub-criteria. In the tourism industry, Stanujkic and Karabasevic (2018) examined the website quality in the hotel industry via PIPRECIA and WASPAS. Jaukovic Jocic et al. (2020) used PIPRECIA and ARAS methods to select the most appropriate e-learning course. In this study, PIPRECIA is used to determine the weights of the criteria for the assessment of the quality of e-learning material.

On the other hand, ARAS is utilized to solve many MCDM problems such as the selection and ranking of alternatives. Karabasevic et al. (2015, 2016) utilized the SWARA-ARAS hybrid model for personnel selection. Similarly, Karabasevic et al. (2018) used ARAS to software testing methods. In the study by Nweze and Achebo (2021), the mechanical properties are optimized by using COPRAS (Complex proportional assessment) and ARAS methodologies. Furthermore, SWARA and fuzzy-ARAS integrated model is utilized to evaluate oil and gas well drilling project by Dahooie et al. (2018).

MODEL

In addition to mathematical modelling, MCDM methods can aid managers in selecting the best location for hotel accommodations. The FLP model can analyse a set of possible locations to determine which options are best located for hotel facilities. This model can consider various criteria (e.g., cost or distance) to determine which location best serves a set of "customer" or demand points (Farahani et al., 2012).

The two-stage PIPRECIA and ARAS methodology were selected for this study because of the strengths of each analytical tool. Specifically, the PIPRECIA methodology weights criteria by ranking, which leads to accurate results, and the ARAS methodology has been utilized to solve a variety of location selection problems in the literature, including logistics centres, waste storage area, and shopping centre location selection problems. In addition, the computational procedure of ARAS is very simple compared to other MCDM methods such as PROMETHEE and TOPSIS. To maintain simplicity, ensure accuracy and applicability, a two-stage PIPRECIA and ARAS methodology is utilized in this study. The flow chart of the model is presented in Figure 2.

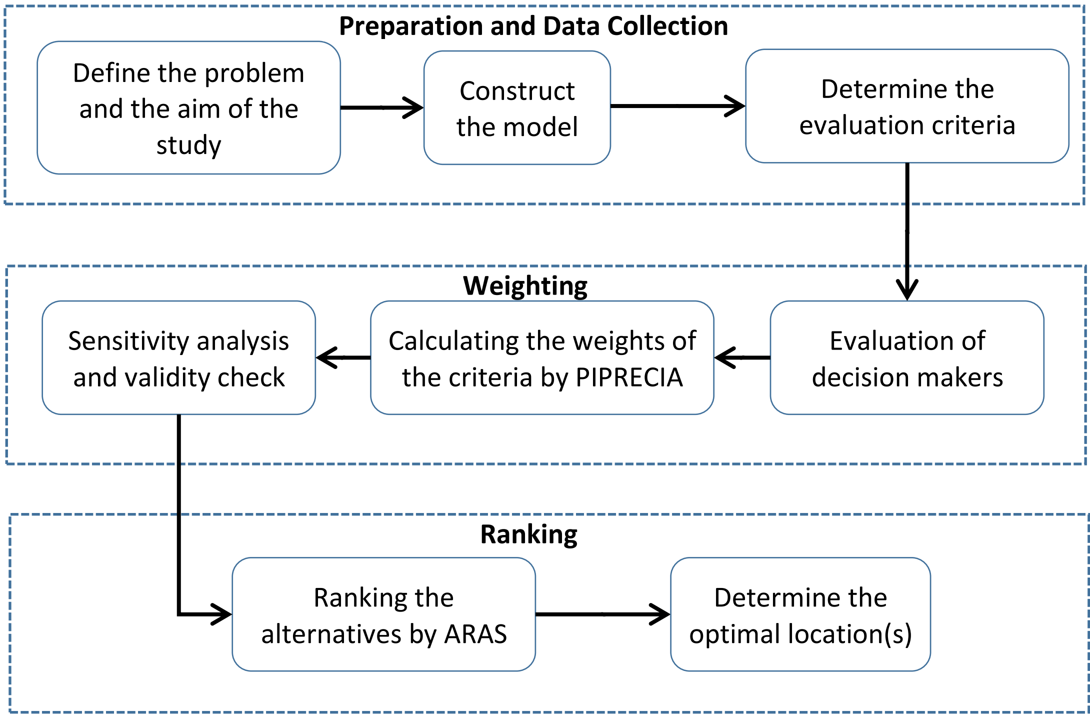

Figure 2. *Proposed two-stage conceptual flow for the selection of small hotel location*

The reason behind the utilizing two-stage PIPRECIA and ARAS methodology on the selection of small hotel locations is that PIPRECIA makes the comparison process easier in group decisions while determining the weight of criteria for various cases in the tourism industry such as restaurant selection, evaluation of touristic projects, and hotel websites. Besides, it allows checking the consistency of decision-makers' evaluations through correlation coefficients. On the other hand, ARAS method yields acceptable, relatively accurate and reasonable results in ranking. It has been utilised to solve selection problems in many areas such as supplier selection, equipment selection, and personnel selection.

PIPRECIA

Many weighting methods used in the literature based on the evaluation of experts or mathematical algorithm applications to the decision matrix. The PIPRECIA method, first proposed by Stanujkic et al. (2017), can anticipate the relative weight of criteria that have been determined by experts in a specific area. The experts can consult with one another in PIPRECIA; therefore, this method can be utilized to solve problems that involve compromise and that require accurate results. The model is evolved from the SWARA methodology which requires the evaluation criteria to be ranked according to their estimated significance (Vesković et al., 2018).

However, PIPRECIA eliminated this procedure and makes the comparison process easier in group decisions (Popović & Mihajlović, 2018). Besides, PIPRECIA can check the consistency of decision-makers evaluations through correlation coefficients (Stanujkic et al., 2019).

Experts play a crucial role in evaluating factors and determining relative weights within the PIPRECIA methodology. Relative priorities of each factor are remarked by each expert and the final rates of criteria are obtained. The most important criteria for effective decision-making that guide experts are experience and information. While the lowest rank refers to the least significant criterion, the highest rank refers to the most significant criterion in PIPRECIA method. The average of the ranked values is analysed to determine the final priority rankings (Keršuliene & Turskis, 2011).

According to Adam and Amuquandoh (2014), location selection decisions have a multi-dimensional perspective which covers hotel characteristics (such as the number of rooms, year of establishment, type of ownership, and category of the hotel) and location factors such as physical site and neighbourhood characteristics and transportation factors considered by the owners of the hotel. The criteria used in the location choice process are identified through an extensive literature review. Determining the relative weight of hotel location selection criteria is an important concern for experts and investors, and different experts may attribute different weights to each of the evaluation criteria. The PIPRECIA methodology provides accurate criteria ratings for decision-making teams that may face difficulty in reconciling the relative weight of criteria. The process by which the relative weighting of hotel location selection criteria is determined utilizing the PIPRECIA method includes the following steps (Stanujkic *et al*., 2017; Popović & Mihajlović, 2018):

Step 1. Rank the set of evaluation criteria determined in a descending order based on expected significances.

Step 2. Experts express the comparative importance of criterion j concerning the previous (j-1) criterion (s_j) starting from the second criterion.

$$S_j = \begin{bmatrix} >1, & if \;\; C_j > C_{j-1} \\ 1, & if \;\; C_j = C_{j-1} \\ <1, & if \;\; C_j < C_{j-1} \end{bmatrix} \tag{1}$$

Step 3. Calculate the k_j coefficient for each criterion as follows:

$$k_j = \begin{bmatrix} 1 & j = 1, \\ 2 - S_j & j > 1. \end{bmatrix} \tag{2}$$

Step 4. Determine the initial weighting factors q_j for criterion j as follows:

$$q_j = \begin{bmatrix} 1 & j = 1, \\ \frac{q_{j-1}}{k_j} & j > 1. \end{bmatrix} \tag{3}$$

Step 5. Determine the relative weighting factors of the evaluation criteria as follows:

$$w_j = \frac{q_j}{\sum_{k=1}^{n} q_k} \tag{4}$$

(n denotes the total number of criteria and w_j denotes the relative weight of criterion j).

Step 6. Calculate the final weight of each criterion (Wj) as follows:

$$Wj = \frac{1}{K}\sum_{k=1}^{K} w_j^k \tag{5}$$

ARAS

The ARAS methodology which is first proposed by Zavadskas and Turskis (2010), which has been utilized to solve different type of problems in a variety of areas, including the ranking of institutions, personnel selection, site selection, supplier selection and equipment selection. In a study of the ARAS method, Ghenai et al. (2020) found that its application to a wide range of problems and growth in popularity can be attributed to the simple, straightforward steps of the method. The ARAS method yields acceptable, relatively accurate and reasonable results in ranking. Zavadskas and Turskis (2010) present ARAS methodology by utilizing six step procedures:

Step 1. Calculate the optimal performance rating. To create a decision matrix, experts grade the relative performance of the *a-th* alternative compared to the *j-th* criterion. The variable *r* denotes the number of experts. The experts' overall evaluation grade for each *j-th* criterion alternative is calculated as the geometric mean grade as follows:

$$x_{aj} = \left(\prod_{k=1}^{r} x_{aj}^{k}\right)^{1/r} \tag{6}$$

The optimal performance rating indicates the best performing criterion among the available alternatives and is calculated as follows:

$$x_{oj} = \begin{Bmatrix} max_a x_{aj}\,; & j \in \varphi_{max} \\ \\ min_a x_{aj}\,; & j \in \varphi_{min} \end{Bmatrix}, \tag{7}$$

Where x_{oj} is the *j*-th criterion optimal performance rating, whereas $\varphi_{\max}$ and $\varphi_{\min}$ denotes the benefit criterion and the set of cost criteria respectively.

Step 2: Calculate the normalized decision matrix by using the equation:

$$x_{aj,N} = \begin{Bmatrix} \dfrac{x_{aj}}{\sum_{a=1}^{m} x_{aj}} & j \in \varphi_{max} \\ \\ \dfrac{1/x_{aj}}{\sum_{a=1}^{m} \dfrac{1}{x_{aj}}} & j \in \varphi_{min} \end{Bmatrix} \tag{8}$$

In equation (8), x_{aj} denotes the *a*-th alternative normalized performance rating in relation to the *j*-th criterion, *a= 0,1,…m.*

Step 3. Calculate the weighted normalized decision matrix. The calculated weights of the evaluation criteria are applied to the normalized decision matrix. By using the following formula, the weights are calculated:

$$v_{aj} = w_{ij}^{r} x_{aj,N} \tag{9}$$

The variable v_{aj} denotes the weighted normalized performance rating of the *a*-th alternative compared to the *j*-th criterion.

Step 4. For each alternative, calculate the overall performance index for each a^{th} alternative (S_a) by using the equation:

$$S_a = \sum_{j=1}^{n} v_{aj} \tag{10}$$

Step 5. Calculate the degree of utility for each alternative. The relative performance of each alternative compared to the best alternative is defined as the degree of utility of each alternative (Q_a). A higher value of Q_a (see equation 10) indicates a higher priority, and a Q_a value of 1 indicates the optimal alternative. The variable S_o denotes the index of the optimal alternative's overall performance.

$$Q_a = \frac{S_a}{S_o} \tag{11}$$

Step 6. Rank the alternatives in upward order, Q_a, and select the most efficient alternative.

PROBLEM: SELECTION OF SMALL HOTEL LOCATION IN CAPPADOCIA

Cappadocia is one of the most popular cultural tourism destinations in Turkey. It is famous for its small cave hotels which offer a unique experience. One of the aims of these hotels is "not to make their guests experience a hotel atmosphere but to host them like they are at home".

The region has a wide variety of tourist attractions, such as hot air balloon flights, valleys, underground cities, and natural beauties. Thus, investors are inclined to buy and restore the old cave houses. However, there are complex criteria for hotel location selection in Cappadocia, and therefore the problem can be modelled as a MCDM problem.

Data

The data used for this study was collected from interviews with six professional experts from Cappadocia. Demographic characteristics of experts are presented in Table 1.

Table 1. *Demographic characteristics of experts*

Education	Age	Experience in Tourism Sector (years)	Position
B.S	71	32	General Manager / Hotel Owner
M.S	39	10	Manager
B.S	35	12	Manager
PhD	41	11	Engineer
B.S	55	30	General Manager / Travel Agency Owner
B.S	39	12	Specialist

The collected data are presented in the results section. As part of the ARAS process, each expert's criterion-based evaluation (1–10) was gathered, and average scores were calculated to create an initial decision matrix.

Hotel Location Selection Criteria

Cappadocia has unique natural and cultural specifications; therefore, interviews with specialists from the region were conducted to determine Cappadocia-specific location criteria. Additionally, the most used criteria for hotel location selection problems were identified in the literature.

Many empirical researches have examined factors for selecting the right hotel location, including characteristics of the facility (Yang et al. 2014), agglomeration effects (Luo & Yang, 2016; Marco-Lajara et al., 2016, 2017), close connections to tourist attractions (Yang et al., 2012), ease of transportation (Li et al., 2015), land use type (Fang et al., 2019), the infrastructure of public service (Yang et al., 2012), urban development (Shoval & Cohen-Hattab, 2001), land cost (Baum & Haveman, 1997; Egan & Nield, 2000), and economic environment (Urtasun & Gutiérrez, 2006; Rigall-I-Torrent et al., 2011). Bull (1998) has compiled these criteria into three areas that influence the selection of hotel locations: physical site characteristics, distance from certain places, and neighbourhood characteristics. Additionally, Pan (2002) has divided the criteria for hotel location selection problems into six categories: base station suitability, public facilities, flexibility of space, traffic convenience, application of certain regulations, fine visual perception.

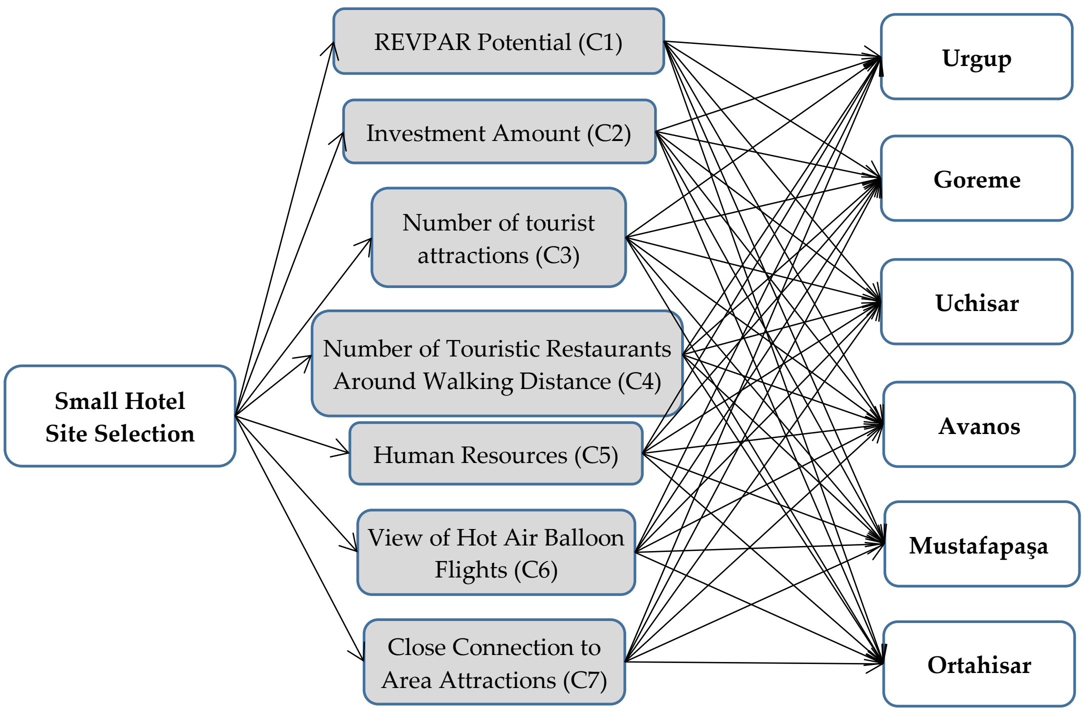

Figure 3. *Alternative small hotel locations and evaluation criteria*

The criteria that were used for small hotel location selection in this study are summarized in Figure 3. These are determined based on the Cappadocia dynamics as described by experts, as well as the empirical studies mentioned above. The criteria in Figure 3 were grouped into five categories as presented in Table 2.

Table 2. *Criteria used in small hotel location selection problem*

Criteria	Category
FC1 **FC2**	Economic
FC3 **FC6**	Tourist attractions
FC4	Sociocultural
FC5	Human capital
FC7	Urban development

The first two evaluation criteria, REVPAR and investment cost, are the main indicators of the investment decisions in accommodation facilities that introduce income and expense respectively. The number of tourist attractions and restaurants around the hotel is two of the most important criteria that directly affect the hotel performance as mentioned above. The fifth criterion, human resources, is crucial for service quality and facility management. The quality and the quantity of the employees in the region is also critical for the tourism industry. One of the region-specific criteria is the view of hot air balloon flights. For the last five years, demand changed towards the hotels that have a view of balloon flights. So, one of the important criteria affecting the demand and revenue is the view of the balloon flight of the hotel. The final criterion utilized in this study is a close connection to area attractions which is categorized in FC7. Since there are many touristic points in Cappadocia, visitors want to reach these areas easily and fast. The closer the hotels are to these points, the more the customer preference shifts to these hotels.

RESULTS

Based on the PIPRECIA weighting methodology, the six experts ranked the seven criteria and relative weight of each criterion was determined. Table 3 presents the relative weighting factors of the criteria (s_j).

Table 3. *Relative weighting factors of the criteria based on the responses obtained from six experts (Sj)*

Ranking	*Sj*					
	Exp-1	***Exp-2***	***Exp-3***	***Exp-4***	***Exp-5***	***Exp-6***
FC1						
FC2	0.70	1.30	0.80	1.20	0.40	0.70
FC3	0.20	0.20	0.40	0.20	0.30	0.30
FC4	1.10	0.90	0.20	0.20	0.30	0.40
FC5	1.25	1.60	0.30	1.40	1.40	1.30
FC6	0.70	0.80	1.50	1.40	1.30	1.10
FC7	0.30	0.30	0.20	0.30	0.20	0.15

Based on equation (2), the comparative importance coefficient for each criterion (k_j = s_j $+1$) was determined (see Table 4).

Table 4. *Comparative importance coefficient (k_j) for each criterion*

Ranking	k_j					
	Exp-1	***Exp-2***	***Exp-3***	***Exp-4***	***Exp-5***	***Exp-6***
FC1	1.00	1.00	1.00	1.00	1.00	1.00
FC2	1.30	0.70	1.20	0.80	1.60	1.30
FC3	1.80	1.80	1.60	1.80	1.70	1.70
FC4	0.90	1.10	1.80	1.80	1.70	1.60
FC5	0.75	0.40	1.70	0.60	0.60	0.70
FC6	1.30	1.20	0.50	0.60	0.70	0.90
FC7	1.70	1.70	1.80	1.70	1.80	1.85

Next, the initial weighting factor q_j was calculated for each criterion. The relative weight of each criterion was determined through the normalization of the initial weights. Table 5 presents the q_j weights and the relative weight for each criterion $j(w_j)$..

Table 5. *The initial weight of each criterion (q_j=[q_j-1]/k_j) and relative weights of the evaluation criteria (w_j)*

	Exp-1		***Exp-2***		***Exp-3***		***Exp-4***		***Exp-5***		***Exp-6***	
Criterion	q_j	w_j	q_j	w_j	q_j	w_j	q_j	w_j	q_j	w_j	q_j	w_j
FC1	1.00	0.25	1.00	0.12	1.00	0.30	1.00	0.18	1.00	0.30	1.00	0.28
FC2	0.77	0.19	1.43	0.18	0.83	0.25	1.25	0.22	0.63	0.19	0.77	0.21
FC3	0.43	0.10	0.79	0.10	0.52	0.16	0.69	0.12	0.37	0.11	0.45	0.13
FC4	0.47	0.12	0.72	0.09	0.29	0.09	0.39	0.07	0.22	0.06	0.28	0.08
FC5	0.63	0.16	1.80	0.22	0.17	0.05	0.64	0.11	0.36	0.11	0.40	0.11
FC6	0.49	0.12	1.50	0.18	0.34	0.10	1.07	0.19	0.51	0.15	0.45	0.12
FC7	0.29	0.07	0.88	0.11	0.19	0.06	0.63	0.11	0.29	0.08	0.24	0.07

The final weight of each criterion (W_j) is determined as described above in equation (5). Table 6 presents each criterion's final weight. Based on results, the most critical factor in small hotel location selection is the REVPAR potential of the location, however, the investment amount criterion is the second in importance. The third most important criterion is the ability to view hot air balloon flights from the location. This criterion is specific to Cappadocia, where hot air balloon flights are a popular and unique experience for visitors.

As described in the literature review, determinants of hotel location have been investigated in many studies (Egan & Nield, 2000; Urtasun & Gutiérrez, 2006; Chou et al., 2008). The final weights of the criteria in this study are not consistent with the literature due to the unique dynamics of

Cappadocia, including the lack of (or limited) agglomeration effect, view of balloon flights variable and geographical structure of alternative locations (i.e., having cave rooms or views). The results indicate that the experts' criteria rankings were primarily based on financial inputs and outputs.

Table 6. *Overall weights for criteria*

Final Ranking	w_j
FC1 - REVPAR Potential	0.23
FC2 - Investment Amount	0.20
FC6 - View of Hot Air Balloon Flights	0.15
FC5 - Human resources	0.13
FC3 - Number of Tourist Attractions	0.13
FC7 - Close Connection to Area Attractions	0.08
FC4 - Number of touristic Restaurants Around Walking	0.08

After figuring out the weight of the criterion, the reliability of decision-makers' responses is checked by Kendall's τ Coefficient Correlation because of the small data set. In table 7 minimum correlation coefficient is 54% which may be assumed the weights are consistent.

Table 7. *Consistency index for decision-makers responses (Spearman's Rank Correlation Coefficient)*

	DM1	DM2	DM3	DM4	DM5	DM6
DM1	-	74.8%	62.6%	69.0%	54.0%	74.0%
DM2		-	76.0%	58.0%	75.0%	63.0%
DM3			-	56.2 %	82.0%	87.0%
DM4				-	77.0%	79.0%
DM5					-	85.0%
DM6						-

Sensitivity Analysis

Changes in the weight of the criteria may significantly affect the rankings. To ensure robustness and stability, sensitivity analysis is required in MCDM methods (Yazdani et al., 2019). In this part, the stability and validity of the study are checked via sensitivity analysis. 10 different scenario sets are generated based on the assignment of criterion weights to each criterion by keeping minimum and maximum weights constant. Scenario-based ranking changes are presented in Figure 4. Sensitivity analysis results show that no drastic changes in ranking were observed except very small changes between fifth and sixth place.

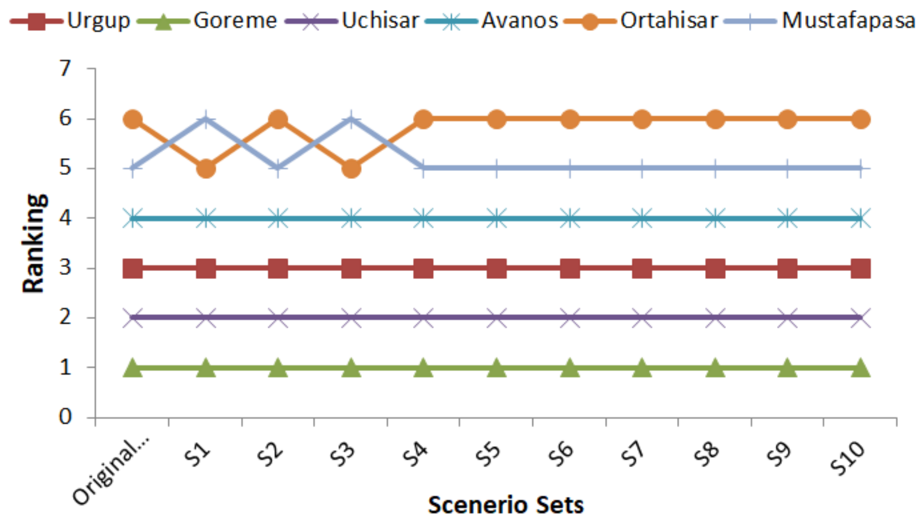

Figure 4. *Change in rankings based on scenarios.*

The present evaluation of small hotel locations involved six experts who ranked seven criteria. The relative weight of each criterion is calculated by the PIPRECIA methodology, and a decision matrix was generated as the first step of the ARAS methodology by using 1 to 10 Likert scale experts' evaluations (see Table 8).

Table 8. *Initial decision matrix*

Criterion / Alternatives	FC1	FC2	FC3	FC4	FC5	FC6	FC7
Optimal	**Max**	**Min**	**Max**	**Max**	**Max**	**Max**	**Max**
Weight	**0.23**	**0.20**	**0.13**	**0.05**	**0.13**	**0.15**	**0.08**
A0	**10**	**2**	**10**	**10**	**10**	**10**	**10**
Urgup	4.46	4.34	6.75	8.75	7.75	1.10	7.40
Goreme	8.42	7.47	10.00	9.00	7.50	8.70	9.30
Uchisar	8.75	9.05	6.75	5.50	7.38	9.00	8.90
Avanos	2.29	3.02	4.75	4.50	788	2.50	6.95
Ortahisar	3.63	3.37	5.00	2.50	7.25	1.05	5.85
Mustafapasa	3.31	3.91	7.25	4.25	7.13	0.70	5.50

Table 9. *Weighted normalized decision matrix and the overall performance index (S_a)*

Criterion / Alternatives	FC1	FC2	FC3	FC4	FC5	FC6	FC7	S_a
A0	**10**	**2**	**10**	**10**	**10**	**10**	**10**	**-**
Urgup	0.026	0.025	0.016	0.016	0.018	0.005	0.011	**0.118**
Goreme	0.049	0.015	0.024	0.017	0.017	0.038	0.014	**0.174**
Uchisar	0.051	0.012	0.016	0.010	0.017	0.040	0.014	**0.160**
Avanos	0.012	0.037	0.011	0.008	0.018	0.011	0.011	**0.108**
Ortahisar	0.021	0.033	0.012	0.005	0.017	0.005	0.009	**0.101**
Mustafapasa	0.019	0.028	0.017	0.008	0.016	0.003	0.008	**0.101**

Prior to normalizing and weighting the decision matrix, the investment amount criterion (FC2) was adjusted, and the direction of optimization changed to the maximum because it is a cost criterion. Table 9 presents the weighted normalized decision matrix.

Finally, for each alternative (Q_a), the degree of utility and the ranking of the evaluated small hotel location alternatives were determined (see Table 10). The hotel location alternatives were ranked in ascending order according to Q_a. Based on the results, Goreme is ranked as the first location among the alternatives, followed by Uchisar and Urgup.

Table 10. *Results of the final ranking of alternatives*

Alternatives	S_a	Q_a	Ranking
A0	0.16	1	-
Goreme	0.17	1.07	1
Uchisar	0.16	0.98	2
Urgup	0.12	0.72	3
Avanos	0.11	0.66	4
Ortahisar	0.10	0.62	5
Mustafapasa	0.10	0.62	5

CONCLUSION

The selection of a facility location from a choice of alternative locations is a typical MCDM problem, the solution of which can offer strategic results for corporations. The decision of appropriate location choice is of paramount importance for decision-makers since relocation and reconfiguration would be extremely costly and contain complex processes.

The hospitality industry in Turkey is an important component of the Turkish economy because the sector is one of the country's leading export channels. Cappadocia plays an important role as a leading cultural tourism destination, and it has strong tourism diversity capabilities with unique geographical and cultural qualities of the region.

Based on the presented framework, as well as the example of its use in small hotel location selection, the two-stage methodology utilized in this study is easily practical and adaptive. Based on a set of selection criteria, it can be utilized to rank hotel location alternatives efficiently. The results indicate that Goreme is the most appropriate small hotel location and Uchisar is the second most appropriate location. The overall performance of Goreme and Uchisar are similar and close to one another, whereas the third most appropriate location, Urgup, is far away. This finding indicates that investors should first focus allocating budget for developing sites in Goreme and Uchisar. Based on the final rankings, Avanos is not considered a worthwhile alternative for a small hotel location in Cappadocia. However, it is ranked fourth by a small weight difference and is ranked above two famous villages, Ortahisar and Mustafapasa. Therefore, Avanos may hold potential for small hotel locations that involve relatively low investment costs.

The study has some limitations. The first one is the lack of detailed data such as occupation ratios of locations. It is just considered based on experts' experience. By consolidation of the data of the small hotels in sub-destinations may overcome this problem. Second, the criteria used in this type of study directly affect the rankings. So, criteria may be expanded in future studies considering the dynamics of destinations and periods. Finally, the study considers only the relevant research period. In future research, the two-stage model can be used in different facility location selection problems that include location-specific criteria.

ACKNOWLEDGEMENT

I would like to thank particularly insightful reviewers for many helpful comments, suggestions and contributions.

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DOI: 10.30519/ahtr.907743

Advances in Hospitality and Tourism Research (AHTR) 2021
An International Journal of Akdeniz University Tourism Faculty Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online) 390-417
Webpage: http://www.ahtrjournal.org/

THE ROLE OF CULTURE ON SERVICE FAILURE PERCEPTIONS AND SERVICE RECOVERY EXPECTATIONS IN RESTAURANTS [1]

Mustafa ÜLKER [2]
Faculty of Tourism, Erciyes University, Turkey
ORCID: 0000-0001-7824-605X

R. Pars ŞAHBAZ
Faculty of Tourism, Ankara Hacı Bayram Veli University, Turkey
ORCID: 0000-0002-7946-6625

Kurtuluş KARAMUSTAFA
Faculty of Tourism, Erciyes University, Turkey &
Rector's Office, Kayseri University, Turkey
ORCID: 0000-0002-6581-6276

ABSTRACT

In this study, the aim is to examine the service failures encountered in restaurants and the recovery efforts that consumers expect in response to service failures in the context of cultural values. A qualitative research approach was adopted, and data were collected from nine tourist guides through semi-structured interviews. Content analysis was used for data analysis. The results show that service failures are categorized as (a) failures in the kitchen, (b) failures in the presentation of services, and (c) general failures while service recoveries are categorized as (i) compensatory responses, (ii) empathetic responses, and (iii) corrective responses. As the results indicate, Turkish tourists care more about failures in the kitchen. Contrary to this, American tourists care more about failures in the presentation of services. Furthermore, Turkish tourists expect compensatory and corrective responses in kitchen-based failures, on the other hand, American tourists expect compensatory responses.

Article History
Received 1 April 2021
Revised 6 September 2021
Accepted 9 September 2021
Published online 5 Oct. 2021

Keywords
service failure
service recovery
culture
restaurant
tourist guide

[1] The abstract of this study was published in the proceeding book of Congress of International Travel & Tourism Dynamics-ITTD2020.

[2] Address correspondence to Mustafa Ülker, Department of Tourism Management, Faculty of Tourism, Erciyes University, Kayseri, Turkey. E-mail: mustafaulker@erciyes.edu.tr

INTRODUCTION

It is quite challenging to avoid service failures in food and beverage operations due to the main characteristics of services such as perishability, inseparability, heterogeneity, and intangibility. In other words, these widely known characteristics of services make the business managers get stuck in dealing with the service failures and establishing managerial processes to overcome the failures. It is stated that 96% of the customers, who are not satisfied with the service they receive, do not express their dissatisfaction and 91% of them change their preferences on restaurants from which they received food and beverage services (Koc, 2019). The research findings also indicate that dissatisfied customers exhibit behaviors such as complaining, negative WOM (word of mouth), and decision to not repurchase. Furthermore, McCollough (2000) emphasizes that customers who experience service failures and get a recovery of some sort from the organization in return is more satisfied than the ones who have never experienced a service failure. This situation is called as the service recovery paradox (McCollough, 2000). Studies (Maxham III, 2001; Tax et al., 1998) indicate that, regardless of the severity of failure, satisfying service recovery plays a key role in establishing long-term relationship with the customers.

When the literature on service failure and service recovery is examined, it is seen that a vast body of knowledge is exist. Koc (2017) states that a significant part of the studies in this area has been carried out in 2012 and beyond. Therefore, it is possible to say, related topics have been extensively explored in recent years. It is also revealed that a significant part of the studies is carried out on restaurant service failures. An in-depth analysis has indicated that a significant part of the studies (Bitner et al., 1994; Hoffman et al., 1995; Loo et al., 2013; Mack et al., 2000; Warden et al., 2008; Yang, 2005) focus on service failures experienced in restaurants, and it has been gaining more importance and attention from the academic circles. For instance, there are studies determining the relationship between the severity of failure types and distributive compensatory justice (Hocutt et al., 2006), determining the relationship both (a) between service failures and customer satisfaction (Fu & Mount, 2007), and (b) between service failures and customer complaints (McQuilken & Robertson, 2011).

There are also some comprehensive studies measuring the impact of recovery strategies on revisit intention (Ok et al., 2006; Wirtz & Mattila, 2004) and loyalty (Leong & Kim, 2002; Ok et al., 2005; Ok et al., 2006; Ro, 2015). These studies have implications for the further studies as follows; (a) examination of the differences between basic failures and other failures

(McDougall & Levesque, 1998), (b) evaluation of different restaurant types (luxury, casual, family, fast food etc.) (Mack et al., 2000; Poon et al., 2004), (c) assessment of service failures and recovery strategies based on various factors like gender (Clark et al., 2009), age (Ro, 2015) and characteristics (Ha & Jang, 2009; Huang, 2008), (d) carrying out interviews with managers (Loo et al., 2013), (e) joint use of qualitative and quantitative techniques (Hocutt et al., 2006), (f) and last, but of course not least, understanding the implications of cultural values and differences on the related topic (Bambauer-Sachse & Rabeson, 2015a; Kau & Loh, 2006; Mattila, 1999; Mattila & Patterson, 2004; Poon et al., 2004).

Although there is a vast amount of knowledge on service failure and service recovery, studies (Li et al., 2011; Pookulangara & Koesler, 2011) examining the role of culture in consumer responses to service recovery is still scarce. Research findings prove that the tourists' perceptions of severity of service failures and effectiveness of service recoveries may vary by different cultures (Patterson et al., 2006). For example, Lorenzoni and Lewis (2004) indicate that there are considerable differences in attitudes towards service recovery efforts by different nationalities. Similarly, according to Duffy et al., (2006) an apology for any failure leads to the satisfaction of Chinese and Australians but not to the satisfaction of the Americans. In order to contribute to the relevant body of knowledge within the context of the background briefly given above, this study focuses on the implications of cultural values and cultural differences on service failure and service recovery in restaurants.

LITERATURE REVIEW

Service Failure and Service Recovery

Due to the above mentioned characteristics of services (perishability, inseparability, heterogeneity, and intangibility), it seems very difficult for businesses to avoid failures in the service process (Hoffman et al., 1995; Ok et al., 2005). Service failures occur when the perception of the consumer towards the service provided does not meet the expectations of the consumer. In addition, service failure may result in negative *WOM* communication and negative behaviors such as leaving the operation, voicing complaints, and disloyalty (Ha & Jang, 2009). Therefore, it is stated that appropriate and sufficient service recovery plays an important role in turning dissatisfied consumers into satisfied ones and maintaining positive relations with them (Gilly, 1987; Ha & Jang, 2009). If the recovery effort is successful, the consumer will be even more satisfied compared to his/her first time in the operation (Etzel & Silverman, 1981). As mentioned above, this situation is called as service recovery paradox. Gilly (1987) and Tax and Brown (1998) state that with accomplished recovery efforts there is a likelihood that the customer may repurchase, that the negative *WOM* may decrease, and that the profitability of the business may increase. For instance, it is stated in a research when operations reduce the failures detected by consumers by 5%, their profitability will increase by 85% (Reichheld & Sasser, 1990).

It was supported by research findings that the response of the operations to the service failures affects the consumer's perception of the service efforts of the operations (Sparks & McColl-Kennedy, 2001). Managers and operations should establish good relationships with consumers to maintain their position in the market and ensure the continuity and loyalty of their consumers. Money spent on compensating the service failures may increase the customer satisfaction (Barakat et al., 2015), leading to profitability in the long run. In this context, it is stated that compensating the failure is effective on several counts such as customer satisfaction, total quality (Smith et al., 1999), and customer loyalty (Fornell & Wernerfelt, 1987; Smith et al., 1999). Service failures and recovery responses are very important for tourism managers, employees, and customers. Kahneman and Tversky (1979) posit that people care more about not losing than winning according to Prospect Theory. Therefore, the negative thinking of the consumer may be stronger than the positive thinking as a result of the service failure (Koc, 2019). Implementing a recovery strategy when there is a service failure offers operations the opportunity to influence visitors' future behavior such as revisiting (McDougall & Levesque, 1998). Although there is a large body of knowledge on the recovery of service failures, it is suggested in studies this issue still needs to be investigated in-depth (Lopes & da Silva, 2015).

Consumers may react harshly to service failures (Smith et al., 1999). Therefore, it is possible to assert that the compensatory efforts of the business operations are compelling and effective at the same time. Studies investigating the severe service failures appear to indicate the importance of distributional, interactional and procedural justice (Weun et al., 2004). Similarly, when a service failure occurs, customers expect the procedural processes to keep on such as talking about the failure and apologizing (Tax & Brown, 2000). Naturally, the different socio-cultural, economic and geographical characteristics of organizations direct the recovery strategies which they offer in response to service failures. For instance, developing countries rarely use financial service recoveries such as gifts and discounts compared to developed countries (Bambauer-Sachse & Rabeson, 2015b).

If consumers encounter a service failure and there is no recovery effort attempted by the organization, this will inevitably bring dissatisfaction and negative *WOM* (Richins, 1983). For this reason, service recovery is seen as one of the most important factors to ensure customer loyalty (Andreassen, 2000; Tax & Brown, 2000). Therefore, operations that adopt effective service recovery policies may urge many customers to visit the operation again (Stauss & Friege, 1999). The main purpose of service recovery is to provide an appropriate reaction to reduce the defects in customer communication caused by the service failure (Ha & Jang, 2009). Research shows that dissatisfied consumers mention their dissatisfaction around 8 to 10 people, on the other hand one out of every 5 disappointed or angry consumers tells about their disappointments or the negative situations they met to around 20 people (TARP, 1980).

It is known that service failures (such as slow service, delivering wrong order) are common in restaurants. Studies investigate how consumers respond to recovery strategies applied for failures such as non-edible food (Folkes, 1984), inappropriate meals in restaurant menus (Smith et al., 1999), and overcooked food and incorrect bill (Namkung & Jang, 2010). It may be necessary to wait a while for the food ordered at the restaurants (Lewis & McCann, 2004), and long waiting time is known as amongst the major service failures.

Service recovery means taking appropriate and corrective steps for the things that are going wrong within the operations (Bailey, 1994). Therefore, effective service recovery can positively affect customer expectations and behaviors (Hoffman et al., 1995). Studies conclude that small gifts, discounts, and credits for future purchases are offered as service recovery (Bambauer-Sachse & Rabeson, 2015b). Furthermore, the main steps taken by restaurants for service recovery are (a) apologizing, (b) offering free of charge, (c) discount, and (d) generating an immediate solution. Many studies (Levesque & McDougall, 2000; Yang, 2005) point out that operations try to eliminate customer dissatisfaction with behaviors such as apologizing, offering food free of charge, and discounts in a possible service failure. Service recovery efforts were classified in some studies. In this study, the classification developed by Chua et al. (2010) is used. Accordingly, service recoveries are as follows: (a) compensatory, (b) corrective, (c) empathetic, and (d) no recovery. Compensatory responses refer to material responses such as not receiving any payment, offering extra food and beverages for free of charge and discount, corrective responses refer to attempts made with the aim of correcting the failure like replacing the food or beverage, and empathetic responses refer to actions based on empathy like apologizing, making explanation, and management intervention. Lastly, no recovery happens when management does not care about recovering any failure and customer satisfaction accordingly.

Building strong relationships with consumers bring along many positive behaviors. According to the marketing literature, consumer-business relationship can be an effective and useful tool in overcoming service failures (Gutek et al., 2000), increasing customer loyalty (Mattila, 2001) and compensating for poor service performance (Mattila, 2001; Priluck, 2003). Similarly, Chen and Kim (2019) and Ok et al. (2005) state that although service failures negatively affect relations with customers, an effective recovery strategy may have a positive impact on attitudes and behaviors and therefore, effective recovery strategies may contribute to building long-term relationships with customers. Accordingly, studies show that the responses of operations to service failures affect their relationship with the consumers in a positive manner (Blodgett et al., 1997) and reduce the negative feelings caused by failures (Hoffman et al., 1995; Maxham III & Netemeyer, 2002).

Against the background detailed above, there is a natural close relationship between service failure, service recovery, customer satisfaction and loyalty. In order to avoid the negative consequences of any service failure and obtain service recovery, service businesses are required to handle service failures in appropriate ways.

Cultural Dimension Model

It is known that tourists' national cultural backgrounds have important implications on their attitudes and behaviors. The quality of the travel experience of tourists from various cultural backgrounds is directly related to their satisfaction. Therefore, understanding the cultural differences in tourist behavior provides an important opportunity for managers in the tourism and hospitality industry to differentiate their tourist products and enhance their social relations with foreign tourists. Culture is also an essential element in behaviors such as eating. In other words, tourists differ in the importance they attach to eating and drinking. For instance, a study conducted by Sheldon and Fox (1988) indicates that local foods are of the primary importance for the British and the Japanese tourists, while the third for the Australians and the fifth for the Germans. In addition, tourists differ by eating and drinking habits and foodways. For instance, as Reisinger (2009) argue, Americans are fond of fish and chips, while the French consume snail apart from other cultures and the Chinese prefer rice mostly. Consequently, it is clear to say that although purchasing, preparation, serving of food and beverages differ significantly amongst different cultures, they are almost stable within a culture.

Considering the differences in cultural characteristics of customers, it is also likely that their reactions to service failures and recoveries differ. For this reason, business managers and employees should pay particular attention to service failures and service recoveries. It is believed that employees add value to their organizations in case that they are willing to compensate the failures in an appropriate manner as long as they are empowered enough to take necessary actions. In a study conducted in Taiwanese hotels (Gilbert & Tsao, 2000), it is stated that the policies of "smiling" and "acting by the book" will provide a standard but may fail to enhance employees' abilities to satisfy the needs of customers particularly in unexpected situations. In Western culture, a sincere apology can be sufficient to gain the loyalty of the customer, though in other culture further efforts or measures could be required (Wang & Mattila, 2011).

In many studies that explain the implications of cultural differences on consumer behavior, the Cultural Values Model developed by Hofstede (1980) is used frequently as a guiding tool. Studies mainly used Hofstede's Model of Cultural Values for investigating visitor satisfaction and evaluations (Crotts & Pizam, 2003), service expectations (Stauss & Mang, 1999) and product usage (de Mooij, 2000). It is stated that identifying cultural values provides researchers with the opportunity to group both service failures and recoveries (Warden et al., 2008). The cultural values model presents a six-dimensional (power distance, uncertainty avoidance, individualism, masculinity, long term orientation, and indulgence) structure that reflects the national culture. Although the individualism dimension is seen as the most used dimension in cultural studies, hospitality and tourism researchers state that masculinity, power distance and uncertainty avoidance dimensions will be useful in explaining behavioral differences (Mueller et al., 2003).

The first dimension in the cultural values model is the power distance. The power distance dimension is associated with the inequality of individuals in the society and the levels of authority acceptance (Hofstede, 2015). In cultures with high power distance, inequality prevails, individuals avoid asking questions and they are more sensitive to hierarchy (Leonard et al., 2009, 2012). In addition, it is known that in cultures with high power distance scores, people expect more service quality (Crotts & Pizam, 2003) and they are more satisfied when they receive recovery such as apologizing after a failure (Prasongsukarn & Patterson, 2001).

Another cultural dimension is individuality. In some societies, individualistic behaviors that emphasize the individual are dominant, while in some others collectivist behaviors that emphasize the group are evident. For example, in collectivist societies, groups are treated like a family (Hofstede, 2015). According to the results of the research, it is seen that the Western societies have higher level of individuality culture and the countries of Eastern and Latin origin have a collectivist culture. Karamustafa et al. (2016) concluded that in the societies which adopt individualist culture, people spend more on food. Besides, people in collectivist cultures have difficulties in expressing their complaints, however, they also attach more value to service recovery compared to individualist cultures (Prasongsukarn & Patterson, 2001). Consumers from countries with individualist culture expect a more personalized service (Stauss & Mang, 1999).

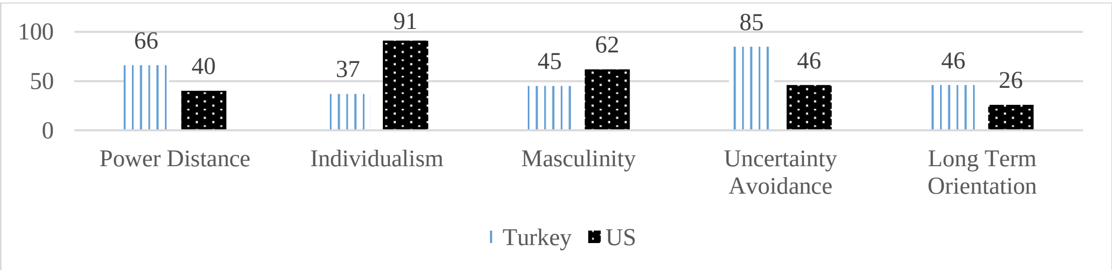
Masculinity is also part of the Cultural Values Model. In societies where masculinity prevails, individuals tend to use their powers against others (Hofstede, 2015). Femininity means that the power owner is reluctant to use power and provide authority. Although the names of the dimensions are associated with genders, women can have masculine values, as well as men can have feminine ones. It is also stated that the probability of expressing dissatisfaction of people in societies dominated by masculine culture is high (Crotts & Erdmann, 2002). Avoiding uncertainty, another cultural dimension, is associated with anxiety levels of individuals in an uncertain situation. It expresses the discomfort experienced by individuals in uncertain situations. According to Ford et al. (2003), avoiding uncertainty is the fear of individuals when they experience uncertainty. In short, this concept can be defined as that people feeling uncomfortable when they face unexpected situations. People in cultures with high uncertainty may be more disturbed at the breakdown of the system. The long term orientation dimension can be defined as the desire of people to delay the satisfaction of material, social and emotional needs. Hofstede and Bond (1988) associated the long term orientation dimension particularly with the Asian culture. While long term oriented cultures attach importance to the future-oriented behavior, prudence, and tolerance present and past behaviors are more important in societies that adopt short term orientation (Ford et al., 2003).

For example, long term oriented customers have low expectations from an operation they get service for the first time.

Within the scope of this study, an evaluation of service failures and recoveries experienced in restaurants has been made in the context of the Turkish and the American cultures. Turkish and American cultures differ in many ways such as family structures and education levels. Considering the subject specific to food and beverage habits of these distinct cultures, dining out is more common among the American people comparing to the Turkish. Some of the reasons for this situation can be understood in the context of differences in economic dynamics, family structures and social norms of both cultures. Despite this, the rate of eating out has been increasing recently in Turkey. Some of the major factors that lead to the increase in the rate of eating out in Turkey are as follows (Karamustafa & Ülker, 2018); (a) increase in the welfare, (b) increase in leisure time, (c) the need of gaining prestige through socialization in the Turkish society, (d) women getting more involved in business life and (e) increase in the level of education in general. One of the major differences between USA and Turkey specific to food and beverage operations is that particularly the fast-food chain restaurants are more widespread in the USA whereas the traditional local food and beverage serving restaurants are in more demand in Turkey as well as American types as the effects of globalization increase.

Hofstede's (1980) Model of Cultural Values (Chart 1) indicates a significant difference between Turkish and American culture. In terms of individualism dimension of the model, Turkey has 37 points, while America has 91 points. In line with this, the collectivist culture is known to dominate the Asia while the West is considered to adopt individualist values (Markus & Kitayama, 1991). In collectivist cultures, people consider the group as the fundamental component of society rather than the individual (Mattila & Patterson, 2004). Individualist cultures adopt opposite values. For instance, in the American culture, it may be possible to attribute a failure to the individual rather than the group.

Chart 1. *Scores of Turkey and America According to the Cultural Values Model*



METHODOLOGY

For the purpose of this study, qualitative research approach was adopted to collect the primary data through the interviews conducted with nine tourist guides who are expected to have specialist level of knowledge of at least two different cultures of the Far Eastern (Turkish) and the Western (American), in each of which they were expected to have at least 20 times tour experience with at least 10 years of experience. Therefore, the most important assumption of this study is that the tourist guides interviewed have considerable amount of knowledge regarding both cultures (Caber et al., 2018). While determining the tourist guides to be included into the interviews, the criteria to guide the tourist groups both with Turkish and American cultures were taken into account.

Data Collection

In this research, data was collected through the interviews. A semi-structured interview form used in order not to ignore the different opinions that may arise during the interviews and to proceed the interview in line with the experiences of the interviewee. The questions in the interview form were formed as a result of reviewing the related literature. The interview questions were examined by the two different researchers and a draft was obtained. Afterwards, the draft was presented to get opinions of the two experts who have already worked as tourist guide and still teach in the tourism guidance departments of the Turkish universities. Necessary adjustments were made in line with the experts' opinions. The interview form consists of three groups of questions. In the first part, there are questions to determine the tourist profile visiting the Cappadocia destination with their travel, and eating and drinking experiences. In the second part, there are questions asked to determine of service failures and recovery strategies, which tourists from two different cultures often voice during their travel. Finally, in the third part, there are questions regarding the demographics of the tourist guides interviewed.

Selecting the Interviewees

In qualitative research, in order to make an in-depth examination of the events or individuals the participation is kept small and purposive selection of interviewees is preferred mostly (Miles & Huberman, 1994). In this study, the purposive selection of the interviewees was used, and the participants were reached through each other similar to snowball sampling. Accordingly, the tourist guides were included in the study on condition that they guided both the Turkish and American tourist groups in the Cappadocia Region with the expectation that they had at least 20 times tour experience with at least 10 years of experience. Tourist guides selected according to these criteria were searched for their contact information and an appointment was requested after explaining the aim of the study. All of the interviews were conducted on a voluntary basis and the interviews were conducted by one of the researchers himself. All interviews were conducted between 30.01.2020 and 08.02.2020. In this context, nine tourist guides that meet the specified criteria are included in the study as participants. Since the number of participants in question is considered to have reached a sufficient level for a qualitative study and responses started to be repeated and overlapped (Miles & Huberman, 1994), the number of participants was considered to be sufficient. Participants who accepted to have an interview were first explained the purpose of the study and asked to fill a voluntary participation form. The interviews were recorded in case that participants give consent. Codes from P1 to P9 were given to the interviewees. The duration of the interviews varied between 16 minutes to 33 minutes. The interviews lasted 24 minutes on average and 222 minutes in total. The records of the interviews were listened to and transcribed, if any, otherwise notes taken during the interviews were coded into the word document.

Analysis

Within the scope of this study, the interview transcripts were sorted out by content analyzes. It is stated that the research approach should be determined before the analysis, be it either deductive or inductive (Braun & Clarke, 2006). Although there is a rich theoretical background for service failure, service recovery and related topics, the approach is inductive in this study as the themes and core concepts were derived from the participants' answers directly. Inductive method requires analyzing the raw data without having a framework which includes codes and themes that are available before conducting the research (Azungah, 2018).

Coding, determining, and naming of the categories as well as the definition of the features related to the categories were the works to be fulfilled at this stage. During the coding stage, two different researchers made coding based on the interview texts. Then, the coding was compared and this phase was ended by reaching a consensus on the issues that conflicted. Following this, consensus was reached on the determination and naming of categories through discussion.

Credibility/Reliability

In a qualitative research, the credibility is quite an important issue. Some steps can be taken to ensure credibility. For example, researchers can directly participate in the primary data collection process to ensure the credibility of the research. Moreover, detailed information can be given about the research and analysis process, examples can be presented through direct quotations from the analyzed text, and coding can be done using the code scheme (Elo et al., 2014). In this study, in-depth information about the method of the research was given, direct quotations were made from the interviews in the following part and discussions were made by developing a code scheme.

FINDINGS AND DISCUSSIONS

According to demographic information regarding the tourist guides interviewed, ages of the participants vary between 33 and 65, most of the participants have at least undergraduate degree, the duration of the guidance varies between 10 years and 43 years, and they predominantly have guiding licenses in English. Participants often guide American, Turkish, English, German, and Chinese tourists. Some of them are freelance guides while some of them are travel agency owners.

Within the scope of the study, the profiles of the tourists visiting Cappadocia, the views of the guides regarding the restaurant experience of the tourists, service failures and recovery expectations of tourists was examined. First, the data regarding the tourist profile was subjected to content analysis and categories were identified as follows: nationalities, travel purposes, types of travel, type of accommodation and average number overnight stays. The participants state that almost half of the tourists coming to the region are foreign visitors particularly from China, India, Spain, Hong-Kong, and Taiwan (Table 1). This result is in line with the results of some previous studies conducted on the same region (Karamustafa & Ülker, 2020; Yılmaz & Özdemir, 2017). Results indicate that the tourists mostly visit the region with the motives of having hot-air balloon tours, visiting historical places, and entertainment and they mostly travel as part of a package tour. This also supports the results of a study conducted on the related region (Yılmaz & Özdemir, 2017). In addition, the findings show that the types of travel affect the types of establishments where they stay. For example, most of the participants state that the tourists coming with package tours mostly stay in 4- and 5-star hotels and ones those individual tourists prefer boutique hotels mostly. Finally, the average number of overnight stays of the tourists coming to the region is stated as two nights.

Table 1. *Profile of Tourists Visiting Cappadocia*

Category	Quotations
Nationalities	"Although it changes temporarily, I can say that mostly Chinese come." (P3) "European countries and USA can be added to the list when compared with the previous years. Last year the number of Chinese and Indian tourists increased. There is also a considerable increase in the number of Russian tourists." (P5) "Cappadocia is generally visited by Europeans. Spanish, French, German and Russian come to the region lately. A large number of Chinese and Japanese visitors come for a long time." (P6) "There are mostly Chinese tourists in February-March months. In April and May, there are tourists from various nationalities. Indians come mostly in May. French and Spanish tourists started to come to the region from Europe. And also, there is a considerable number of Romanians." (P7) "Often there are tourists from Asian countries… The majority are Chinese…" (P8) "Lately there are tourists from Far East and South America. The majority are from China, Hong Kong, Korea, Columbia and Mexico." (P9)
Travel purposes	"In Turkey, the route of İstanbul-Cappadocia-Ephesus is known as the golden triangle. This route is culture route. However, culture tourism has decreased considerably recently." (P1) "I can say culture when I think about previous years. But the travel purposes of current tourists are two fold; culture and entertainment. Visiting churches and underground cities are some of cultural activities. When we look at entertainment activities the balloon tours stand out. Balloon tours have overshadowed cultural tours in recent years…" (P5) "Cappadocia is the center of Christianity which is an important issue. Many people travel with religious motives. There are also church enthusiasts, and they want to visit Göreme Open-Air Museum." (P6) "Cultural mostly, tourists want to travel around the region, and they also have motives for have hot-air balloon tour lately" (P7) "They generally come with cultural motives. There are hot-air balloon tours held in the region. We can say that they come with both cultural and entertainment motives." (P8) "Hot-air balloons have been much sought after recently. Secondly, historical and religious tourism is preferred." (P9)
Types of travel	"Tourists usually come to this destination within a package tour. Cappadocia is not their main destination… Especially the tourists coming to Istanbul visit the region afterwards…" (P3) "Generally, they come within a package tour. The center of the region is Göreme. When we look there, it is seen that individual tourists are predominant." (P5) "They usually come with a package tour because the number of tourists going to Antalya and Pamukkale after Cappadocia that is quite high" (P6) "The number of individual tourist is rather low, there are generally package tours." (P7) "About 60%-70% of them come within a package tour. The rest are individual tourists." (P8)
Types of accommodation	"Those who come within a package tour stay in star hotels, and individual tourists stay in boutique hotels." (P2) "Since there are few rooms in cave type boutique hotels, tourists coming with a group stay in 4- and 5- star hotels." (P3) "Tourist groups usually stay in 3-, 4-, and 5- star hotels, because boutique hotels do not provide enough rooms for groups. Boutique hotel owners do not want to sell rooms to groups." (P7) "Those who come with groups want stay in 4- star and 5- star hotels. Individual tourists want to stay in cave hotels." (P8) "Cave hotels are the most preferred hotels in Cappadocia. Besides this, 4 and 5-star hotels are preferred in package tours." (P9)
Average number of overnight stays	"It is not more than three days in Cappadocia." (P3) "I think it is two days at most." (P5) "It is 1.8 days in Cappadocia for now, if I am not mistaken." (P7) "It is two days at most." (P8)

Tourists visiting Cappadocia generally prefer local restaurants and they are also interested in ethnic and a la carte restaurants (Table 2). In addition, tourists keen on local dishes and prefer local foods and beverages such as *testi kebabı*, *tandır kebabı*, *mantı* and wine in the region. Findings indicate that tourists gather information before having restaurant experience and that this information is mostly gathered from tourist guides, on-line comments, promotional brochures and hotel staff. Lastly, it is understood that tourists are not very curious about food ingredients, and they ask about it only when they have religious concerns (like asking for *kosher*).

Table 2. *Restaurant Experiences of Tourists Visiting Cappadocia*

Category	Quotations
Restaurant preference	"Especially conscious tourists prefer local restaurants… They say "I don't want to eat the food I eat in Istanbul"." (P3) "They prefer the restaurants where they can eat local food." (P5) "There are restaurants offering food from Chinese and Indian cuisines. Tourists also visit these restaurants." (P5) "Tourists generally want to go to local restaurants, but there are not many." (P7) "They usually prefer small restaurants with local dishes." (P8) "Small and region-specific restaurants are preferred." (P9)
Food preference	"Locally, *testi kebabı* (kebap cooked in a sealed clay pot) and *mantı* (a ravioli-like dish served with yogurt) are preferred. In addition, tourists are curious about tasting regional wines." (P1) "For this region, *tandır kebabı* (kebap made in tandouri), *Nevşehir tava* (a type of meat dish baked with vegetables), *güveç* (meat casserole) are generally consumed foods." (P5) "They ask for *gözleme* (Turkish pancake) and *kebabs*. They know everything as *kebab*." (P6) "It is *kebab* mostly. The most prominent food is *testi kebabı* for now." (P7) "They mostly prefer meat dishes in the region… Of course, the *testi kebabı* is famous." (P8) "Generally, *testi kebabı*, meat cooked in earthenware pots, and *sarma* (stuffed vine leaves) are preferred." (P9)
Information gathering	"They gather information about restaurants. They search for comments on the Internet and ask their guide's and travel agent's opinions." (P2) "Sure. Most of them do research on the Internet and ask us about the location of the restaurant." (P3) "They can get information from reception." (P6) "They definitely gather information. They make decision according to online comments…They get recommendations from those who have visited before…Guides or receptionists may also make recommendations." (P7) "They usually look at TripAdvisor comments… Sometimes they tell some restaurant names and ask, "which one of these can we choose?"" (P8) "The guide's recommendation is very important here." (P9)
Food ingredients	"They ask about the ingredients of food on private tours… At least one tourist in every tour asks me about gluten-free food." (P6) "They are not very curious about it actually." (P7) "Indian tourists ask about the ingredients of the dish. They ask in detail because of religious concerns." (P8) "They wonder about the ingredients." (P9)

Some of the findings are related to service failure perceptions of the tourists from two different cultures (Turkish and American culture) (Table 3). In this section, the main categories are listed as (a) service failures in the kitchen, (b) service failures in the presentation of services, and (c) general failures. The classification of service failures was made based on the information obtained during the industry experiences of the researchers. The classification developed by Chua et al. (2010) was used in the classification of service recovery efforts. It has been determined that Turkish tourists coming to the region mostly voice the service failures in the kitchen but give importance to service-related and restaurant-related failures too. Some of the service failures in the kitchen can be listed as inadequate portion size, improper way of cooking the food, and use of non-local products. The most important service failures in the kitchen were determined to be "fail to cook food in proper manner", "food not cooked at desired level", "food served at an appropriate temperature", "use of non-local spices", "use of stale food", and "inadequate portion size" as voiced by the tourists. While Turkish tourist mostly voice their dissatisfaction about cooking methods, use of spices and spoiled food related failures, American tourists mostly complain about the improper way of cooking, food not being served at the right temperature, and inappropriate portion sizes. The results of the study show that both tourist groups care more about service failures in the presentation of the services. The most common failures are “food not served on time”, “untidy or dirty table setup”, “rude behavior of the service staff”, and “guest not seated where s/he wants to”. While Turkish tourists regard an unpleasant welcome and not being seated in where they want to as a failure, American tourists complain about rude behavior of employees, employees with foreign language problems, dirty table setup, and inappropriate serving order. Therefore, it can be said that while Turkish tourists care more about service failures in the kitchen, American tourists care more about service failures in the presentation of services. It has been concluded that Turkish tourists are more willing to voice failures and are more impatient to complain compared to American tourists. As Crotts and Erdmann (2002), and Hofstede (2015) state, in societies where masculine culture is dominant, individuals tend to use their power against others and they most likely express their dissatisfaction. However, the findings of this study indicate that Turkish tourists as the representatives of a feminine dominated culture are more willing to voice their complaints. Moreover, long term oriented customers have low expectations from an operation they get service for the first time. In this sense, it was concluded that findings of this study do not support the findings of the previous studies. The last main category in this section is related to the general failures. In this category, it is understood, both tourist groups consider the general cleaning problems and unpleasant smell of the restaurant as service failure.

Another question sought to be answered in the research was which service compensations the tourists found more acceptable after service failures. Service compensation expectations were categorized as (a) compensatory response, (b) empathetic response, and (c) corrective response (Table 4) as in Chua et al. (2010). More clearly, tourists find "not receiving any payment", "discount", and “offering beverages, desserts, and appetizers free of charge” acceptable as compensatory responses. On the other hand, it was concluded that “apologizing”, “intervention of manager”, and “giving gift” compensations as empathetic responses are more acceptable. Finally, corrective responses such as change of the food or beverage are expected by tourists. When the compensatory expectations for the two different cultures examined in this study are compared, Turkish tourists expect compensatory responses such as not receiving any payment, discount and desserts or beverages for free of charge; corrective responses such as change of the food or beverage; and empathetic responses such as management intervention and apologizing.

Table 3. *Service Failure in Restaurants*

Main category	Sub-category	Quotations	Turkish tourists	American tourists
Service failures in the kitchen	Fail to cook food in a proper manner	“Turkish tourist has eaten testi kebabı and sarma so many times before. Therefore, they can make criticisms like "this dish is undercooked" or "overcooked".” (P4) “We receive complaints about the taste of the dish and the way it is cooked. There are too many complaints about this issue.” (P5) “They want to eat the same kebab that they have eaten in Adana (famous with its kebabs), but they cannot find it in Cappadocia.” (P9)	✓	
	Food not cooked at desired level (overcooked or undercooked)	“They see that meat is not cooked properly at the right degree and say “is this a steak house?.” (P3) “The biggest problem of American tourists in general is overcooking or undercooking. The level of cooking they want is very important for them…” (P9)		✓
	Food served at an inappropriate temperature	“Temperature of food is important for them.” (P7)		✓
	Use of non-local spices	“Turkish tourists regard it as a failure when they perceive the spices used in food are not local. It affects their palate.” (P1)	✓	
	Use of stale food	“Turkish tourists figure out if the ingredients used are fresh or not. Therefore, dissatisfaction occurs in case they are not.” (P2)	✓	
	Inadequate portion size	“They complain about inadequacy of portion size.” (P6) “They care about the portion of the food. When we visit Ihlara, they eat meatballs in earthenware pot in there. They usually say the portion of food is inadequate.” (P7) “I received complaints about small portion size. You know they have bigger portions than ours back in America…” (P5)	✓	✓
Service failures in the presentation of services	Rude behavior of the service staff	“American tourist gets angry when his plate is taken before finishing his meal. He counts this as a rude behavior by the operation.” (P2) “There are complaints that service staff are saucy…” (P5) “They care more about courtesy. They pay regard to attitudes of service staff.” (P8)		✓
	Failure to meet the guest properly	“Sometimes there are some problems with welcoming the guests to restaurants.” (P1)	✓	
	Guest not seated where s/he wants to be	“They are dwelled on that they are not seated where they want although the table is empty.” (P4) “Turkish tourists cannot easily accept restaurants’ way of arrangement of tables. They say “I want to sit at this table” or “do I have to sit at the same table with group?”.” (P6)	✓	
	Deficiency of foreign language	“The waiter's inability to communicate with the customer is a big problem.” (P3) “I think the most important thing they have trouble is the employees. I don't think the waiters are very good about foreign language… They should be able to explain the ingredients of a meal to the tourist…” (P4)		✓
	Food not served on time	“They complain a lot about food being served late.” (P2) “The food that should normally be served in 10 minutes can be served in 20 minutes when it comes to a Turkish tourist.” (P9) “Food not served on time can be a matter of complaint…” (P5) “American tourists pay attention to whether the food is served on time or not.” (P1) “Sometimes, tourists have already had their meals finished when the staff takes beverage orders. They also express their complaints on this issue.” (P7)	✓	✓
	Fail to serve beverages in a proper manner	“I remember that once staff served wine before the guest tasted it and the guest said “I should have tasted it before”.” (P5)		✓
	Inappropriate serving order	“All orders are served at the same time when you go to restaurants with a group.” (P7)		✓
	Untidy or dirty table setup	“Sometimes there are problems with where the fork, knife, napkin, plate are placed.” (P3) “Sometimes it can only be possible to take the tour to the restaurant much later than the time we arranged before. Although they set tables before our arrival, an oil-drip on the tablecloth causes dissatisfaction.” (P4) “First, they look at the table setup. They look at the cleanliness of the table. Cleanliness is important to them… They convey their complaint to us when there is dirt on the table.” (P8)		✓
General failures	Unpleasant smell in restaurant	“The smell in restaurant is another thing that Turkish tourists care about.” (P1)	✓	
	Problems related to general cleanliness	“Cleanliness is another issue. They look at the toilets and think they are inappropriately cleaned.” (P8) “They complain about general cleanliness of restaurants. Toilets are an important part of it.	✓	✓

Table 4. *Service Recovery Expectations in Restaurants*

Main category	Sub-category	Quotations	Turkish tourists	American tourists
Compensatory responses	Not receiving any payment	"Offering tea and coffee is not considered sufficient. They demand not to pay for what they have eaten." (P1) "They expect to be exempted from paying." (P3) "Assume that they served burnt food, tourist does not want to make any payment." (P4) "Turkish tourists generally demand a refund from the restaurant if they don't like the food." (P6)	✓	
	Discount	"For sure Turkish tourist expects a discount firstly." (P2) "Turkish tourist does not want to make payment when he is served burnt food." (P4) "Domestic tourists may also want discount." (P5) "If Turkish tourists don't like the food, they say that the restaurant should pay some amount of money back. Some even assert it explicitly." (P6) "They rather claim for a discount." (P8)	✓	
	Offering beverages free of charge	"I was guiding a group of students group on one occasion. They ordered meatballs and chicken. There was confusion with the order and students requested the beverages to be free of charge." (P6) "They may ask for an extra beverage." (P8) "They would be quite satisfied with a glass of wine offered for free of charge." (P2) "They want not to pay for the beverages, alcoholic beverages particularly." (P3) "They are very fond of beverages; they expect to be offered a beverage." (P6) "A little offer after an apology: it could be tea or coffee. They regard it as a big gesture and the failure would be compensated." (P8) "Any offer made to an American tourist would make him satisfied." (P9)	✓	✓
	Offering dessert free of charge	"Sometimes they expect a dessert to be offered free of charge." (P8) "They like having dessert for free of charge. You can see it in their reactions." (P4) "Restaurants here make some special desserts, offering these desserts can be compensatory." (P8)	✓	✓
	Offering appetizers free of charge	"He expects an appetizer following meal." (P3)		✓
Empathetic responses	Apologizing	"Both tourist groups expect an apology definitely." (P5) "Of course, they wait for an apology." (P6) "They expect the operation to make a verbal compensation with a sincere apology." (P1) "An apology from the heart may be considered important because of the failure." (P2) "They can accept an apology." (P4) "Foreign tourists wait for an apology. An American particularly waits for an apology." (P6) "They rather expect an apology from staff. They can forgive right away." (P8)	✓	✓
	Intervention of manager	"Domestic tourists want the matter to be handled by the manager. They say "call your manager if you cannot handle it"." (P5)	✓	
	Giving gift (e)	"It may be effective if the operation gives a gift that does not have a material value." (P2)		✓
Corrective responses	Change of the food or beverage	"They demand for a change." (P2) "For example, if Turkish tourists order meat and receive it burnt, they ask for a change. It is hard to please Turkish tourists." (P4) "They ask for different food. This is what happens mostly in this kind of situations." (P7) "If there is a problem with the food, they want it to be changed without making it a matter." (P5) "American tourist conveys their complaints by getting in contact with relevant authorities. But they do not attempt it since they are in a foreign country. They may demand a change." (P7)	✓	✓

Table 5. *Service Failures and Recovery Expectations by Cultures*

Main category	Sub-category	Service Recoveries Expected for Service Failures	Quotations	Turkish tourists	American tourists
Service failures in the kitchen	Fail to cook food in a proper manner	Change of the dish (cor)	"S/he may ask for a different food… When it does not come as requested, s/he may request the previous food back..." (P4)	✓	
		Offering appetizers free of charge (com)	"S/he expects some extra food to be served for free of charge." (P3)	✓	
		Not receiving any payment (com)	"In this case, s/he either expects not to pay anything or some discount." (P5)	✓	
	Food not cooked at desired level (overcooked or undercooked)	Change of the dish (cor)	"If the food is cold, s/he wants the dish to be changed. S/he wants it at appropriate temperature." (P5) "This is very difficult to compensate. However, the food can be prepared again..." (P1) "He wants it to be changed or re-cooked…"I ordered it to be medium, but it is well-done, please change it," he says." (P3) "If there is a problem with the food, they want it to be changed." (P5) "They bring a new one. They would never make the guests wait in these kinds of situations. The restaurant wants to change it immediately. American tourists also want this change." (P6)	✓	✓
	Food served at an inappropriate temperature	Change of the dish (cor)	"If the food is not served at an appropriate temperature, they demand it to be changed." (P7)		✓
	Inadequate portion size	Discount (com)	"If the portion is small, the operation does not usually favor discounts. However, Turkish tourists explicitly want discount." (P6)	✓	
		Change of the dish (cor)	"A little more can be added to the food... Restaurants consider the cost …" (P7)	✓	
Service failures in the presentation of services	Rude behavior of the service staff	Apologizing (e)	"An apology finds a way around it. "Go on guys, I will receive your orders" kind of approach is not something desired by American tourists." (P5) "It would be more appropriate to apologize. They expect an apology first of all." (P8)		✓
		Replacement of the staff momentarily (e)	"For example, tourists would be bothered if waiters watch over while they are eating. Waiters control whether they have finished meal but tourists are disturbed by this." (P2) "One of the waiters' rude behavior was recounted to the manager on one occasion and he changed the waiter momentarily." (P8)		✓
		Intervention of manager (e)	"Tourists speak out the failure. For example, if he thinks the staff is rude, he may expect the manager to interfere and warn the staff about it." (P4)		✓
	Guest not seated where s/he wants to be	Offering beverages free of charge (com)	"If there is time for another group to arrive, as a guide, I request my group member to be seated there. Tourists want a drink while waiting." (P6)	✓	
	Food not served on time	Making explanation (e)	"The service staff must explain why the food is served late, or it will be very difficult to compensate." (P2)	✓	
		Not receiving any payment (com)	"If the waiting time increases, s/he wants not to be charged…" (P4)	✓	
		Offering beverages free of charge (com)	"Waiting time is an important issue. It is definitely a subject of complaint… It may be appropriate to offer Turkish coffee and tea…" (P5) "In the case that the food was not served on time, offering beverage for free of charge may be appropriate to compensate the failure." (P1) "They may expect a beverage not to be charged." (P7)	✓	✓
		Offering appetizers free of charge (com)	"If the food was not served on time, they expect the operation to offer appetizers..." (P1)		✓
	Untidy or dirty table setup	Change of the set up (cor)	"American tourist thinks "Do they deem us worthy of this service?" It could be dirt on knife or fork or it could be a plate with a little crack on the edge, they definitely want it to be changed." (P4) "They want it to be fixed quickly right after they tell it to the staff or manager." (P8)		✓

American tourists, on the other hand, expect compensatory responses such as beverages, appetizers or desserts for free of charge; corrective responses such as change of the food or beverage; and empathetic responses such as giving gift and apologizing. Tourist guides, on this issue, state that Turkish tourists care more about material value while American tourists care more about sentimental value.

Another issue addressed in the study is which service recovery actions will be more effective according to two different cultures (Table 5). Service failures are classified as service failures in the kitchen, service failures in the presentation of services, and general failures as expressed before. Turkish tourists complain more about service failures in the kitchen while American tourists express more complaints on service-related failures. Some of the prominent service failures in the kitchen expressed by Turkish tourists are inadequate portion size and improper way of cooking food. Americans, on the other hand, complain more about service failures in the presentation of services such as food not being served on time and untidy and dirty table setup. When the recovery actions for these types of failures are examined, it is clear that Turkish tourists expect compensatory (com) and corrective (cor) actions for service failures in the kitchen. To illustrate, a Turkish tourist may expect a compensatory response like not to make any payment or a corrective response like change of the dish in case that the food ordered is not cooked in a proper way. American tourists, on the contrary, expect corrective actions more in response to service failures in the kitchen. To illustrate, an American tourist may want a change in case that food is not served at an appropriate temperature. Therefore, it is understood that Turkish tourists expect compensatory actions in response to service failures in the kitchen. It is stated, people belonging to collectivist cultures value service recovery more (Prasongsukarn & Patterson, 2001). Findings of this research show that Turkish tourists who have more collectivist values compared to American ones expect recovery more.

American tourists voice their complaints regarding service failures in the presentation of services more when compared to Turkish tourists. For instance, American tourists expect empathetic responses (e) such as an apology, replacement of the staff momentarily, and intervention of the manager in case that the staff behaves in a rude manner. Turkish tourists, on the other hand, expect compensatory responses like not making any payment and receiving beverages for free of charge and empathetic responses like getting an explanation regarding the failure. In general, it can be said that Turkish tourists expect compensatory responses for service failures in the presentation of services while American tourists are more likely to expect empathetic responses.

CONCLUSION

In order to contribute to the relevant body of knowledge, the focus of this study was on the implications of cultural values and cultural differences on service failure and service recovery in restaurants, hence, the aim was to make contribution to the related knowledge accumulation accordingly. In order to carry out this study, semi-structured interviews were held with tourist guides who previously guided tourists from two different cultures (Turkish and American cultures). Tourist guides were included in the participant lists as long as they had tour guiding experiences on both groups of tourists.

The first part of the research findings is about determining the profile of the tourists visiting the Cappadocia Region. In this sense, almost half of the tourists are foreigners. Tourists visit the region with motives of having hot-air balloon tours and visiting historical places. Besides, a considerable number of the tourists visit the region within a package tour, and this affects the choice of establishment they stay. For instance, those who travel within a package tour stay at 4- or 5- star hotels while individual tourists mostly prefer boutique accommodation enterprises with attractive local ambiances which reflects the Central Anatolian Turkish culture.

In this study, service failure perceptions and service recovery expectations of Turkish and American tourists were evaluated based on the interviews with tourist guides. According to tourist guides, tourists prefer local restaurants mostly, they consume local food like *testi kebabı*, *tandır kebabı*, *mantı* and also local wines in the context of beverages. It is stated that tourists gather information about restaurants before experiencing and this information is usually provided by guides, on-line comments, and hotel reception. Food ingredients are asked by a few tourists with religious or dietary concerns.

The findings of this research have important implications for both practice and literature. The first of these implications is that service failure perceptions and service recovery expectations regarding to restaurant experience may differ by culture. The research findings point out that the Turkish tourists mostly express service failures in the kitchen, while Americans mostly express service failures in the presentation of services. In more detail, Turkish tourists complain more about inadequate portion size, offering food not cooked in a proper manner, and using non-local ingredients. On the other hand, American tourists pay more attention to service-related failures such as inappropriate behaviors of service staffs as well as untidy and dirty table setups. Therefore, business operators should establish their understanding of service on the basis of cultural differences of tourists. For instance, restaurant owners and/or managers should take necessary measures in the preparation of the orders more attentively in order to ensure satisfaction of the Turkish tourists and to provide necessary trainings to their service staffs to make the American tourists more satisfied. In this way, the satisfaction with restaurant will increase, and hence, with the destination. While it is stated in the related literature that people from masculine cultures are more willing to express their dissatisfaction, the findings of this study indicate that Turkish tourists who are from a feminine culture more tend to express any service failure. In this sense, the findings of this study differ from the related literature, which may be because of the cultural closeness of the Turkish tourists with Turkish service providers.

Another important finding of the study is that the recovery expectations of the Turkish and American tourists for service failures differ to some extent. For instance, Turkish tourists mostly expect compensatory responses such as not making payment, discounts and offers for free of charge, and they are in expectation of corrective and empathetic responses less. On the contrary, American tourists give more importance to corrective and empathetic responses and expect compensatory responses less. Generally, as tourist guides state, Turkish tourists care more about recovery actions that provide material value while American tourists care more about sentimental value. The findings of this study indicate that Turkish tourists who are from a collectivist culture expect compensatory responses for a service failure, while Americans expect corrective responses more than compensatory ones. If restaurant managers can analyze the recovery expectations of tourists from different cultures, they will be able to increase satisfaction of their customers accordingly.

Another issue addressed in this study is to determine which service recovery actions would be more appropriate to which service failure by cultures. According to the research findings, Turkish tourists expect more compensatory and corrective responses for service failures in the kitchen while American tourists expect more corrective responses. In service failures in the presentation of services, Turkish tourists expect compensatory and empathetic responses while American tourists expect empathetic responses, like an apology or manager intervention. No study has been encountered in the literature in which the appropriate service recovery actions for the service failures are examined within the framework of cultural values in the restaurant settings. Food and beverage operations should apply compensatory responses in service failures experienced by the Turkish tourists such as not receiving payment and offering food or beverages for free of charge, and empathetic responses in service failures experienced by the American tourists, such as apologizing, manager intervention, and replacement of staff. Therefore, it may be suggested that service providers serve their consumers of different nationalities in different ways or differentiate their service compensations for service failures according to nationalities.

This study is not free from limitations like many others. The primary limitation of the study is that it was carried out in the Cappadocia Region. This issue can be further investigated in different destinations in the future. Semi-structured interview technique was used to gather data in this qualitative study. Further research can hold focus group discussions involving different stakeholders on this issue. This study was carried out with tourist guides who have guided tourists from the two different cultures long time ago. It is known that Turkish tourists visiting the region as part of a package tour intensively and American tourists take private tours consisting of fewer people. Although the tourist guides were told to think both groups with similar income levels, they may have evaluated Turkish tourists visiting the region with a package tour and American tourists with a private tour. Researchers can carry out a comprehensive study by including restaurant managers, tourists, and tourist guides to eliminate this limitation in the future. Finally, the most important limitation of this study is that while Turkish tourists are in their home country, American tourists are in a different country. This may cause Turkish tourists to complain more than American tourists as they may feel more comfortable in their home country. For example, in the study carried out by Carr (2002), it was concluded that international tourists are more passive and hedonistic compared to domestic tourists. Similarly, in the study conducted by Mustafa (2011), differences were found in the behavior determinants of domestic and international tourists. Therefore, the findings of the study on this subject should be handled with caution.

ACKNOWLEDGMENT

This study has been supported by the Scientific Research Project Coordination Unit of Erciyes University. Project Number: SDK-2020-10458. This research has been compiled from the Ph.D. thesis titled “Kitchen-Based

Service Failures and Recovery Strategies in Food and Beverage Operations: Evaluation with Scenario Approach" written by Res. Asst. Mustafa ÜLKER in Gazi University Institute of Social Sciences (Now Ankara Hacı Bayram Veli Univeristy Institute of Graduate Programs) (Consultants: Prof. Dr. Ramazan Pars ŞAHBAZ, Prof. Dr. Kurtuluş KARAMUSTAFA).

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DOI: 10.30519/ahtr.814822

Advances in Hospitality and Tourism Research (AHTR) 2021
An International Journal of Akdeniz University Tourism Faculty Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online) 418-443
Webpage: http://www.ahtrjournal.org/

PREDICTORS AND OUTCOMES OF SUCCESSFUL LOCALIZATION IN THE AVIATION INDUSTRY: THE CASE OF OMAN

Nasser A. ALKATHIRI
University of Technology and Applied Sciences- Salalah, Oman
ORCID: 0000-0001-9494-7366

Ahmed Mohamed ELBAZ [1]
University of Technology and Applied Sciences- Salalah, Oman & University of Sadat City, Egypt
ORCID: 0000-0002-3106-7182

Iqtidar SHAH
Department of Business Administration, Yorkville University, Canada
ORCID: 0000-0002-3761-0043

Mohammad SOLIMAN
University of Technology and Applied Sciences- Salalah, Oman & Fayoum University, Egypt
ORCID: 0000-0002-9359-763X

ABSTRACT

Localization has encountered substantial focus in academia as well as practice; however, scarce studies have empirically examined this theme within tourism-related sectors in Oman, including the aviation sector. That is why the purpose of this paper is to develop and test an integrated model of the key predictors and outcomes of successful localization within the aviation industry. It also evaluates the mediating role of knowledge sharing ability between human resources development (HRD) practices and localization as well as the moderating effect of organizational commitment on the link between localization and firm performance. This paper is based on primary data collected from 194 employees operating in the national aviation sector in Oman. Based on PLS-SEM, the results indicated that HRD practices (i.e., training, performance appraisal, and rewards) have a positive impact on expatriates' ability to share knowledge with national staff, and thus positively

Article History
Received 23 October 2020
Revised 19 April 2021
Accepted 24 April 2021
Published online 5 May 2021

Keywords
localization
HRD practices
knowledge sharing
organizational commitment
firm performance
aviation sector

[1] Address correspondence to Ahmed Mohamed Elbaz (PhD), University of Technology and Applied Sciences - Salalah, Oman & University of Sadat City, Egypt. E-mail: ahmedelbaz.sal@cas.edu.om

impact the localization success. Additionally, the firm's performance is positively influenced by successful localization. Knowledge sharing does not mediate the link between HRD practices and successful localization, but the results confirmed the interactive impact of organizational commitment on the direct connection between localization and performance. The findings contribute significantly to the research community and provide practical guidelines and managerial implications.

INTRODUCTION

Recent decades have experienced some economic and financial crises that substantially influenced the aviation industry in global regions including the Middle East region (Harvey & Turnbull, 2009). The Gulf Cooperation Council (GCC), a sub-region of the Middle East comprising 6 nations (i.e., Saudi Arabia, Oman, Kuwait, the UAE, Qatar and Bahrain), are considered one of the hardest-hit regions affected by such crises, as their economies depend heavily on oil (Alaref et al., 2018; Alkathiri & Soliman, 2020). For instance, the economies of the GCC countries encountered a significant decline due to the sharp collapse in oil prices in 2015 (GCC-STAT, 2018). Unexpectedly, the GCC nations have experienced a binary shock due to the outbreak of Covid-19 pandemic, which markedly affected economic and socio-cultural systems around the world (Hassan & Soliman, 2021; Sigala, 2020), as well as the new breakdown in oil prices in 2020. Therefore, governments in these countries are challenged to take the necessary actions linked to the economic recession and the incessant slump in oil prices (Arezki et al., 2020).

One the contrary, the labour market in the GCC nations is characterized by a huge number of expatriates working in various industries and sectors (Harry, 2007; National Center for Statistics and Information, 2019), along with a high unemployment rate for national labour (Karam, 2017). In addition, compensation packages and wages of expatriates are much higher and costly compared to those of national workers (Wong & Law, 1999), and the success rate of expatriates in tasks and responsibilities they undertake is not usually higher (Toh & DeNisi, 2007). This represents a further decisive challenge to these countries, especially in times of financial and economic crises.

With the escalating concern related to these challenges, there is a crucial call to effectively implement crisis response policies and strategies to overcome these economic difficulties and manage them in a proper manner. With regard to localization, it refers to the replacement of expatriate workforce with host country nationals (Potter, 1989), and is considered a suitable strategic approach for many reasons (Wong & Law, 1999). One of the most important reasons is that salaries and compensation packages of citizens are lower and less costly than expatriates' payments (Wong & Law, 1999). Moreover, localization can enhance the decision making-power of the locals and grants them greater job advancement chances (Hitotsuyanagi-Hansel et al., 2016).

The current paper especially investigates the localization subject within the context of tourism in Oman. The country has its own policy of localization, called '*Omanization*', deployed in several industries and sectors including the tourism sectors, as a suitable policy to face the economic challenges and to empower the local employment (Al-Lamki, 2005). Consequently, Omanization has experienced a growing attention and consideration in academia in various domains and contexts in Oman. However, limited studies have yet explored the Omanization topic among tourism-related sectors. To be more precise, there is no study examining the key issues concerning the Omanization policy within the Omani aviation sector.

With respect to this limitation, two major questions are raised: 1) What are the most crucial determinants of successful localization in the Omani aviation industry? 2) What are the main benefits of successful localization among the aviation sector in Oman? As a result, the present paper developed and examined an integrated framework of the essential predictors and outcomes of *Omanization* within the aviation sector in Oman, as one of the leading GCC countries. The proposed framework combines some crucial constructs that are closely interrelated with the Omanization context as follows: human resources development (HRD) practices (predictors); knowledge sharing (predictor and mediator variable); organizational commitment (moderator variable); and firm performance (outcome variable).

Due to the aforementioned issues, the current research focuses on five main objectives: (a) to examine the impact of HRD practices (i.e., training, performance evaluation, and rewards) on expatriates' ability to share knowledge with local staff; (b) to investigate the effect of knowledge sharing on successful localization; (c) to test the influence of successful localization on firm performance; (d) to evaluate the mediation role of knowledge dissemination on the connection between HRD practices and localization; and (e) to assess the moderation impact of organizational commitment on the direct path between successful localization and firm performance.

The findings of the current paper have substantial contributions concerning both academic as well as practical aspects. First, this research contributes to the literature on tourism by assessing the main antecedents and consequences of effective localization in the aviation sector, specifically in the Middle East region as well as GCC countries. Secondly, it extends to the few prior studies that investigated the issue of localization in the field of tourism in the GCC countries, especially in Oman. Third, this paper analysed the indirect effect of knowledge sharing between HRD practices and localization, which will provide a clear view of the suitable HR strategies and procedures required to transfer knowledge from expatriates to the local workforces to successfully complete the process of localization. Fourth, this article evaluates the moderating impact of organizational commitment between localization and firm performance, which will present solid outlines on how the direct impact of localization on performance can be affected under different situations of organisational commitment in the aviation industry in Oman. Finally, it produces practical guidelines and managerial implications for concerned policymakers and managers of tourism-related businesses (i.e., airlines) in Oman concerning the key issues connected with the deployment of localization (Omanization) in an effective way.

The remainder of the paper has been structured as follows: A brief account of the existing literature related to the topic, is presented in section 2 followed by an illustration of the conceptual framework and hypothesis in section 3. Section 4 describes the methodology adopted in the paper, while the results and discussion are presented in section 5. The conclusion is demonstrated in section 6 with some policy implications.

LITERATURE REVIEW

Localization is an emerging issue which is defined in the literature from various perspectives. Potter (1989) defined localization as the practice of replacing expatriates with locals who have the capabilities to perform as efficient as expatriate staff (Law et al., 2009). According to Pegram et al. (2018), localization within the HR literature refers to the replacement of expatriate management staff by competent local people. Governments in some countries have employed several strategies and policies to replace expatriates with nationals (Mellahi & Al-Hinai, 2000) including education and training of the native workforce coupled with government tools of quotas, incentives, and partnership programs for private sector organisations (Williams, 2014). Consequently, localization is considered a great challenge for many governments and international companies, as the number of expatriate employees has increased with the global business expansion, and thus replacing them with local staff is a major concern for multinational companies (Harry, 2007) including international tourism enterprises (Liu, 2004; Wang, 2016; Wong & Law, 1999). For example, Chan et al. (2016a) reported that the high payments and rewards to expatriate employees in China's tourism and hospitality industry have forced these companies to localise their workforce. Lasserre and Ching (1997) also argued that cost reduction is one of the main objectives of localization.

Localization is an important approach from a long-term perspective, in which local staff influences strategic decisions regarding products, operations, marketing, structure, human resource management and overseas venture success (Gomez & Sanchez, 2005). Law et al. (2004) reported that local managers have a deep understanding of the people and culture of the host country. Bartlett and Ghosal (2002) stated that localization helps an organisation to adapt their respective services to a particular language, culture and desired local look-and feel. However, the major problem in achieving a successful localization is the lack of skills and experience of natives. In this vein, Suliman and Al-Junaibi (2010) indicated that nationals do not have experience or skills to effectively replace the expatriate workforce in terms of productivity and performance. Therefore, it is the expatriates drive to transfer knowledge to the local staff is the main antecedent in achieving successful localization (Selmer, 2004). Law et al. (2004) studied four practices of HR (training, evaluation, rewards, and repatriation) as key elements that lead to successful localization. Previous studies have focussed on the antecedents of localization (Al-Hamadi et al., 2007; Budhwar et al., 2002; Law et al., 2009). However, the literature on such links remains inconclusive.

The literature on localization has focussed primarily on two main areas: the importance of localization in relation to global multinational enterprises (Selmer, 2004) and factors that contribute to achieving successful localization (Fryxell et al., 2004). In this vein, some researchers examined the factors affecting localization in various domains and contexts. The findings of Selmer (2004) demonstrated that Western expatriate managers' willingness to train national managers is a principal antecedent of successful localization in China, whereas Fryxell et al. (2004) indicated that planning and expatriates' choice are major predictors of localization success in Chinese multinational companies. In addition, Law et al. (2009) investigated the impact of human resources management (HRM) practices on localization of multinational enterprises in China. Nonetheless, there is a conspicuous lack of empirical investigation of tourism organizations with respect to HRD practices on knowledge sharing and localization. In addition, the literature on aviation industry is still limited (Bandeira et al., 2014; Correia et al., 2008). More particularly, there are few studies concerning HRD practices within the aviation industry (Appelbaum & Fewster, 2003). Furthermore, as far as the authors are concerned, there is no research examining the causal relationships between HRD practices (training, performance appraisal, and rewards), knowledge sharing and localization in the aviation industry in the Middle East region, especially in Oman.

Moreover, the connection between effective localization and organization performance has been studied in previous studies (e.g., Hitotsuyanagi-Hansel et al., 2016; Law et al., 2009; Reiche, 2007), nonetheless, the impact of localization of performance from the perspective of tourism organizations has not been investigated. To be more precise, the influence of Omanization on the performance of the aviation sector has yet to be studied. Furthermore, some scholars tested the relationship between organizational commitment and performance. For instance, Jaramillo et al. (2005) conducted a meta-analysis on prior studies of fourteen nations and revealed that organizational commitment positively and significantly impacted job performance of sales staff. In addition, job performance is significantly influenced by organizational commitment, which consequently moderates the link between job stress and performance (Jamal, 2011). According to Hitotsuyanagi-Hansel et al. (2016), few studies examined the connection between localization and work attitudes of local employees. Additionally, no research work assessed the moderation role of organizational commitment on the direct association between localization and firm performance in the aviation sector.

Omanization

Oman is a member of the GCC that is featured with a strong economy that depends mainly on oil exports (Harry, 2007). According to Behrendt et al. (2009), most of the financial markets in all regions have substantially decreased because of the global financial crisis in 2008; however, the effect on economies of the GCC nations has been comparatively limited due to the huge part to surplus liquidity from the oil boom witnessed. This reflects the fact that the states of GCC continued to import skilled and well-qualified expatriate employees (Harry, 2007). With regard to Oman, due to the huge amount of oil revenue generated in seventies, the government initiated mega infrastructure development programs for which expatriates were recruited as the local labour market was lacking (Moideenkutty et al., 2016). After two decades of oil exploration and massive oil enterprises, the government took the initiative to promote localization plans (Al-Lamki, 2005). The localization plan called Omanization, was introduced in 1988 aimed to replace expatriate workforce with trained Omani personnel. This policy is essentially deployed to overcome the low unemployment rates for Omani nationals and to improve the level of self-reliant in human resources in several fields. Successful localization should be considered as one of the main challenges for many governments and international companies in the GCC countries (Harry, 2007) including Oman. Therefore, the Omani government set quotas for various industries to determine the percentage of Omani to foreign workers (Goby & Alhadhrami, 2020). However, the success of these plans was limited as 85% of the workforce in private sectors is occupied by expatriates (Al-Lamki, 2005). Previous studies attributed the failure of localization deployment to the lack of skilful local workers or the local workers are more expensive (Al-Waqfi & Forstenlechner, 2010). To cover the skill gap, the Omani government focused on training and education (Fan et al., 2013; Kaltenborn et al., 2008). The other approach is to establish a quota for local in the private sector job. Recently, Oman's vision for the future, "Oman 2040", has been developed in which jobs target in the private sector was set at 40% for Omanis (Vision 2040, n.d). "The tourism sector is predicted to employ more than 500,000 people by 2040, with an estimated 75 percent of those being Omani nationals" (Oman Observer, 2018). In addition, with the aim to decentralize the governmental decisions and establish a leaner framework for the public sector that fits with the governance aims of Oman's Vision 2040, the number of ministries was reduced (Oliver, 2020). For instance, the Ministry of Manpower, the Ministry of Civil Service, National Centre for Employment and National Training Fund were merged into one Ministry named as the Ministry of Labour. In this regard, the Ministry of Labour in Oman announced a new strategy to reduce expatriate work force by a significant increase in fees for new licenses to recruit and to bring in expatriate manpower in some professions (Oman Observer, 2021).

With respect to the tourism industry, the Omanization percentage in tourism sector is remarkably high compared to other sectors of the Omani Economy whereas the aviation sector is the second highest sector in achieving successful localization (Khan & Krishnamurthy, 2016). The

Omanization rate in the travel and tourism sector was 41.1 per cent in 2017, 42.2 per cent in 2018, and 43.1 per cent in 2019, while 44.1 per cent is the target for 2020. The Omanization rate in the logistics sector was 14 percent in 2017, 16 percent in 2018 and 18 percent in 2019. It has been pegged at 20 percent in 2020. Parallel to this, the Omanization target for the industrial sector will be 35 percent in 2020, after reaching 34 percent in 2019, 33 percent in 2018, and 32.5 percent in 2017 (Times of Oman, 2019).

CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

This study investigates the integrated conceptual model of the major antecedents and the outcomes of localization in the Omani aviation sector based on the resource dependence theory (Law et al., 2009), which aims to expand the existing literature regarding localization by examining the effect of the three practices of HRD (i.e., training, evaluation, and rewards) on expatriates' ability to share knowledge with local staff and using knowledge sharing as a mediating variable between HRD practices and localization. In addition to testing the influence of localization on firm performance, along with the moderating role of organizational commitment. The conceptual framework is shown in Figure 1.

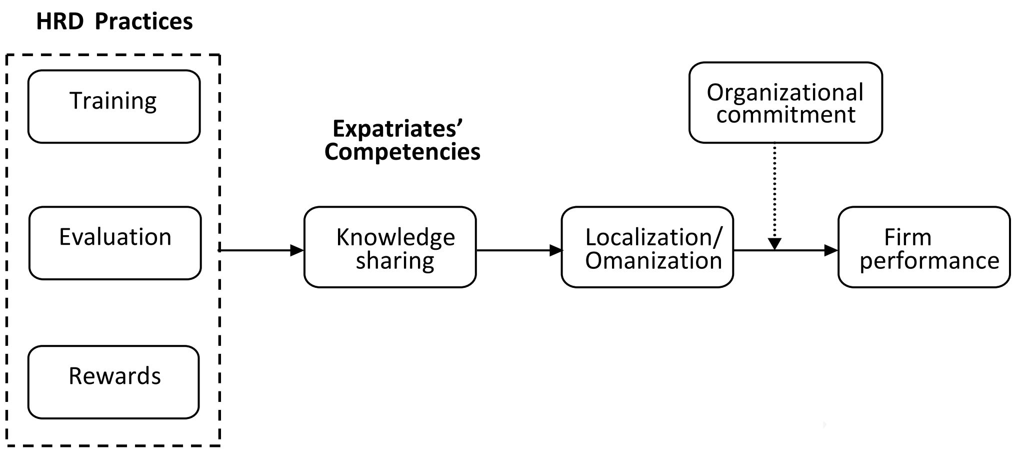

Figure 1. *The conceptual framework*

HRD and expatriates' ability to share knowledge

HRD practices towards localization refers to the efforts of internal resources in the home firm in facilitating the processes of localization (Law et al., 2009). More specifically, Moideenkutty et al. (2016) stated that it is a set of integral practices that focus on attracting, hiring, developing, and managing the local employees. Previous studies related to human resource have discussed both the importance of HRM as well as the issues related to expatriate management, particularly the high failure rate of expatriates. Moreover, some researchers have focussed on the impact of HRM practice adaptation (Chen & Wilson, 2003). Garavan et al. (2001) demonstrated that HRD plays a vital role in improving human capital which can pave the way towards achieving a competitive advantage. In theory, this indicates the influence of HRD practices on staff development and behaviour (Law et al., 2009). These practices include, for instance; improving the skills of employees via training, enhancing the motivation of employees through rewards and employee selection and evaluation, which enables the employees to develop new ways to perform their jobs in an effective and innovative way (Moideenkutty et al., 2016). Thus, these practices have the potential to facilitate the process of localization (Law et al., 2009). For example, Harry (2007) reported that the essential method to achieving successful localization is to develop appropriate HRM practices which would promote localization. Chan et al. (2016a) stressed the importance of training in the hotels industry due to the capability to enhance local employees' understanding of the corporate cultures and strategies. Hence, providing the appropriate training to local managers in the aviation sector can cultivate the localization process (Chan et al., 2016b). In this context, the Omani government has recognised the significance of developing an effective training system to cope with the growing investment in the country's tourism sector (Bontenbal & Aziz, 2013).

Moideenkutty et al. (2016) have concluded in their study that HR practices such as employee selection and recruitment, dedicated training for locals, a clear career pathway and rewarding have the potential to encourage successful localization. However, literature on the aviation industry is still limited (Bandeira et al., 2014; Correia et al., 2008), and there are very limited studies regarding HRD practices in the aviation industry (Appelbaum & Fewster, 2003). Furthermore, Chan et al. (2016a) claimed that the HRD practices in the tourism and aviation industry each have their own characteristics. That is why Appelbaum and Fewster (2003) demonstrated that companies in the aviation industry should adopt effective HRD practices to manage the dynamic changes within the industry. Therefore, there is a need to investigate the impact of HRD practices such as appraisal, payments promotion and coaching in achieving successful localization.

Previous studies have used the motivations of expatriates towards localization as a key determinant factor for the success of localization

(Selmer, 2004). This means that if expatriate employees are not motivated to transfer the knowledge to local employees, localization may not be successfully achieved. Tsang (1999) concluded that HR practices such as recruiting the right expatriates and providing effective training have the potential to enhance the ability of expatriates to share knowledge with the local staff. Consequently, this may successfully lead to localization. In addition, HR practices such as training, evaluations and rewards can be used to improve the motivation of expatriates in transferring knowledge to local employees (Hislop, 2002; Huselid, 1995). This means that the expatriate motivations towards localization will be high when the organisation provides the expatriates with rewards. Therefore, this study developed the following hypothesises:

Hypothesis 1: Training has a positive impact on expatriates' knowledge dissemination to local employees.

Hypothesis 2: Performance evaluation has a positive impact on expatriates' knowledge dissemination to local employees.

Hypothesis 3: Rewards have a positive impact on expatriates' knowledge dissemination to local employees.

Expatriates' ability to share knowledge and localization

Previous studies utilized the ability of expatriates towards localization as determining factors for successful localization (Selmer, 2010). This implies that the localization process may not be effective if the expatriates are not able or motivated to transfer their knowledge to local employees (Rogers, 1999; Wong & Law, 1999). The lack of ability or motivation attributed by expatriates towards localization can be summarised in four reasons. First, expatriates may lack the skills required to teach the local staff, as not everyone has the ability to teach others (Chang et al., 2012). Second, even though they possess the appropriate skills to teach the local staff, expatriates might still be reluctant to share their knowledge with the local staff due to their concerns of making redundancies (Selmer, 2004). In contrast, Dutt et al. (2017) demonstrated that since expatriates view their employments as temporary, their involvement will be limited and thus reduce their motivations to share their knowledge. The fourth reason is related to the absorptive capacity of the local staff as they may not be willing or are not able to learn from the expatriates (Elbaz et al., 2018). Thus, this paper proposes the following:

Hypothesis 4: Expatriates' knowledge sharing to local employees enhances localization success.

Localization and firm performance

Moreover, this study aims to test the influence of successful localization on the performance of the Omani aviation sector. In this regard, no research work has empirically examined how localization affects performance in the aviation sector. However, the relation between the two variables has been investigated by some scholars in different disciplines. For example, Wong and Law (1999) indicated that localization could be a proper business objective in Chinese transnational corporations for many causes such as low cost of nationals, effective business relationships by local employees, enhancing the Chinese mangers' morale, the active communication between nationals' workers and managers and the significant contribution to performance (Law et al., 2009). In addition, Reiche (2007) stated that localization could decrease the bias of ethnocentric which strengthens the disparity among expatriates and locals' employees. Law et al. (2009) argued that effective localization could lead to better performance of the company. Moreover, Hitotsuyanagi-Hansel et al. (2016) reported that enterprise success can be achieved by local workers having a higher level of effective localization. These workers are more likely to be loyal to their organisations and consequently are more likely to avoid behaviours that would produce costs for their employers. Based on the aforementioned discussion, we made the following hypothesis:

Hypothesis 5: Successful localization has a positive impact on the firm's performance.

The mediating role of expatriates' ability to share knowledge

Including the debates of H1 to H5, the current study recognised direct relationship between HRD practices and expatriates' ability to transfer knowledge on the one hand, as well as the direct relationship between the expatriates' ability to transfer knowledge and localization. Thus, expatriates' ability to share knowledge is likely to mediate the relationship between HRD practices and successful localization. Therefore, this current study posits that:

Hypothesis 6: Expatriates' ability to share knowledge mediates the relationship between HRD practices and localization success.

The moderating role of organisational commitment

The current paper further evaluates the interactive impact of organizational commitment on the relation between successful localization and performance of the aviation sector in Oman. According to Mowday et al. (1979), organizational commitment is the relative strength of an individuals' identification with and involvement in a particular organization. Organizational commitment has been widely investigated in a lot of research concerning organizational behaviour due to its substantial impact on beneficial behaviours of the company such as performance and turnover of workers (Riketta, 2002). Therefore, the relationship between organizational commitment and the performance of organizations in different sectors has been examined in prior studies. For example, the study of Shaw et al. (2003) investigated the association between organizational commitment and two dimensions of job performance at two commercial banks in the UAE and found that affective commitment was not significantly correlated with the overall job performance. Additionally, Chen et al. (2006) indicated that there is a positive connection between organizational commitment and job performance of accounting professionals in both Taiwan and the USA. Moreover, the findings of Suliman and Al Kathairi (2013), illustrated that there is a significant connection between both affective and continues organizational commitment and performance of employees of three governmental organizations in the UAE. Furthermore, Fu and Deshpande (2014) revealed that performance of workers operating at a Chinese insurance company is positively affected by organizational commitment. One the contrary, Hitotsuyanagi-Hansel et al. (2016) indicated that localization positively affects organizational commitment. They also revealed that organizational commitment fully mediates the link between localization and employees' turnover intention for Chinese white-collar working at manufacturing, technology, and service sectors. However, the moderation role of organizational commitment on the direct connection between successful localization and firm's performance has not been investigated yet, within the aviation industry in GCC countries and in Oman in particular. Therefore, the following hypothesis is formulated:

Hypothesis 7: Organizational commitment moderates the link between successful localization and firm's performance.

METHODOLOGY

Population, sample, and data collection

The Omani national aviation is the most prominent example of successful Omanization (localization) besides banking (Al Lamki, 2005). Therefore, we selected Oman national aviation as a case study to test the current study hypothesis. There were approximately 5,315 employees, out of which 3,152 were Omani and 2,163 were expatriate employees. We distributed 500 questionnaires to the frontline employees with the expectation of 35% return. A total of 203 completed questionnaires were received, of which 194 found valid and used for this study while 9 questionnaires were found incomplete and invalid to use. Paper-based surveys were administered in November and December 2018 with the aid of two research assistants. Nevertheless, the issue with generalisation associated with convenience sampling remains accepted in contemporary literature where it is hard to access the population (Baltes & Ralph, 2020). Based on Feild et al. (2006), non-probability sampling can contribute to the quality of the data when adequate participation levels are accomplished. Therefore, the current study adopted non-probability convenience sampling due to the fundamental features of the aviation sector and the pragmatism required to entice their involvement.

Measurement instruments

To measure *localization*, the study adopted the seven items measures of Law et al.'s (2009) study. We used four items of Chang et al. (2012) to measure the expatriates' *ability* to disseminate knowledge. These four items considered the knowledge dissemination to local staff. HRD practices were divided into three groups measured by sixteen items adopted from Law et al. (2009). The first group considers local *staff training*, which was measured by eight items. The second group *evaluation*, which was measured by four items. The third group considered *rewards* related to localization, which was measured by adopting four items from Law et al. (2009). To measure the *firm performance*, we have used Conger et al. (2000) five-item scale. Finally, *organisational commitment* items were borrowed from Khan et al. (2014) and Abdelhamied and Elbaz (2018).

Data analysis methods

To test the hypotheses, we used a PLS-SEM using WarpPLS 6.0 (Kock, 2017). The choice of the PLS-SEM was deemed appropriate for three key reasons. Hair et al. (2017) have recommended PLS-SEM method is used for forecasting. This method mainly focuses on clarifying the variance in variables by calculating the total disparity in the observed variables rather than just the correlations between the variables (Sarstedt et al., 2014, 2016). Moreover, Hair et al. (2011) demonstrated that the PLS-SEM enables the researchers to assess the structural model relationships that increase the R^2

values of the measured variable while also enabling researchers to estimate the outcome of the dependent latent variables' items by measuring the Stone-Geisser Q^2 values. These characteristics are significant for this study due to the focus on (1) identifying the key HRD practices explaining successful localization in the Omani context and (2) explaining employee via the interventional role of the competency of expatriates.

Finally, the PLS-SEM is highly recommended for complex models having different latent variables (Henseler et al., 2009). In the current paper, the researchers proposed an integrative model that includes seven latent variables, each with a number of indicators. Hence, PLS-SEM was used in this study as it is better suited for complex settings. In addition, PLS-SEM does not assume normality and takes into account the evaluation of two main distinctive models, namely the measurement model and the structural model. In short, Jarvis et al. (2003) indicated that the measurement model considers the association between the latent variables and their indicators, whereas the structural model considers the association between the latent variables.

ANALYSIS AND RESULTS

Sample Profile

Total 194 valid questionnaires have been used in this study. The sample characteristics (Table 1) illustrated that the employees who participated in the survey were generally 26-35 years old (67.0%), followed by 36-45 years old (20.2%). The majority of the participants were males (approx. 68%) which is a common case in the Middle East and Arab countries where the male workforce generally dominates the workplace. Finally, about half of the participants hold a bachelor's degree (43.8%).

Table 1. *Sample Profile Characteristics*

Age	**18-25**	**26-35**	**36-45**	**45-55**	**Above 55**
	10.3%	67.0%	20.2%	1.5%	0.8%
Gender	**Male**			**Female**	
	67.8%			32.2%	
Education	**Bachelor's degree**	**Diploma**	**Master's degree**	**Doctorate Degree**	**Others**
	43.8%	38.1%	12.9%	1.5%	3.6%

Validity and Reliability

This study tested both the validity and reliability for all constructs, and this was performed by assessing the measurement suitability of the constructs implemented in current paper (i.e., the measurement model). The reliability of latent variables was tested through both composite and Cronbach's Alpha coefficients (Table 2). On the contrary, the validity of latent variables was measured through the indicators' loading (see appendix); the Average Variance Extracted (AVE) was tested to measure the convergent validity and the square roots of AVE was tested to assess the discriminant validity (Table 3). The Variance Extracted Factor (VIF) was also checked for all the variables to examine collinearity issues (Table 2).

Table 2. *Construct Coefficients*

Variables	Composite Reliability	Cronbach's Alpha	AVE	VIF
Organizational commitment	0.889	0.923	0.666	3.495
Training	0.937	0.921	0.681	3.350
Performance evaluation	0.870	0.801	0.626	2.560
Rewards	0.897	0.847	0.686	1.589
Knowledge sharing	0.899	0.850	0.690	2.450
Firm performance	0.944	0.925	0.770	2.150
Localization	0.912	0.883	0.633	2.929

Table 3. *Squared Roots of AVE*

	1	2	3	4	5	6	7
1. Organizational commitment	(0.825)						
2. Training	0.770	(0.852)					
3. Performance evaluation	0.546	0.593	(0.791)				
4. Rewards	0.266	0.326	0.533	(0.828)			
5. Localization	0.704	0.693	0.684	0.427	(0.796)		
6. Firm performance	0.632	0.597	0.556	0.470	0.618	(0.878)	
7. Knowledge sharing	0.316	0.312	0.432	0.364	0.305	0.391	(0.831)

Based on Mackenzie et al.'s (2011) approach, a minimum value of 0.7 for both Composite Reliability and Cronbach's Alpha coefficients were found thus showing good reliability for constructs (Table 2). Correspondingly, an appropriate level of validity and reliability for all latent variables used in this current paper has been established (Tables 2 and 3). In this way, a suitable convergent validity was found as all AVEs achieve a minimum value of 0.5 and all indicators' loadings greater than a threshold value of 0.5 (Hair et al., 2017).

Table 3 illustrates that the AVEs of all constructs are greater than that of any other correlations involving the latent variable thus signifying appropriate discriminant validity (Lowry & Gaskin, 2014). Ultimately, Table 2 shows that the VIF values of all latent variables were less than 5, therefore demonstrating the absence of both common methods bias and multicollinearity (Kock & Lynn, 2012).

Structural Relationship Model

With the assessment of the measurement model which established the validity and reliability of latent variables used in the present study, the analysis of the structural relationship model can subsequently be undertaken. Therefore, Figure 2 presents both the path coefficients (β) and the p values of the present research model.

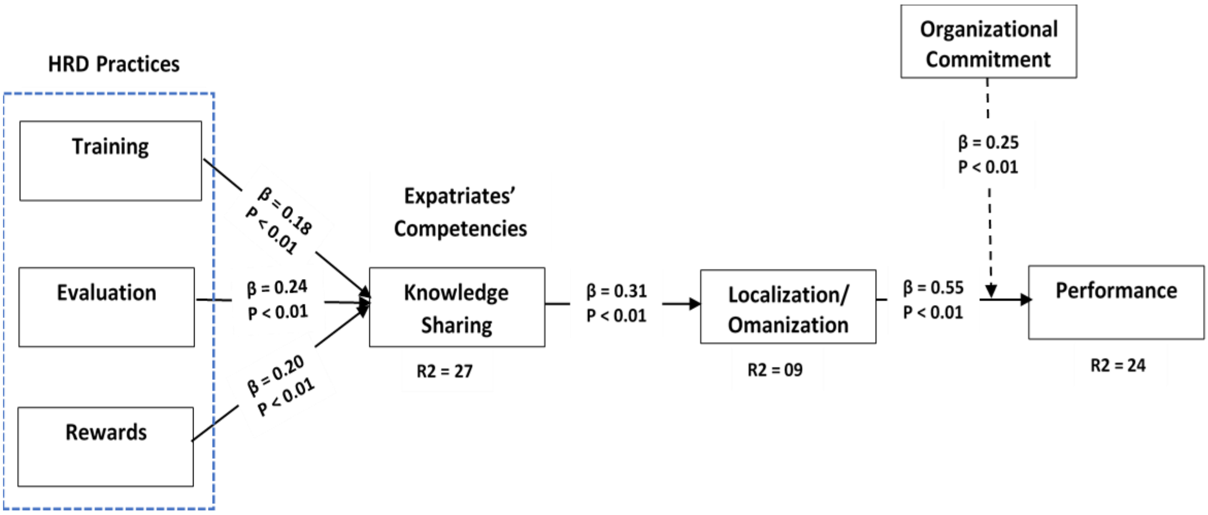

Figure 2. *Coefficients (β) and the p values of the model*

Results showed that training had a significant influence on knowledge sharing ability (β = 0.18 and P < 0.01). Furthermore, performance evaluation had a significant influence on knowledge sharing ability (β = 0.24 and P < 0.01), and finally we found rewards hold a moderate positive effect on expatriates' ability to share knowledge with local employees (β = 0.20 and P < 0.01). Hence, Hypotheses 1, 2, and 3 are accepted (see Figure 2). Considering the direct influence of expatriates' ability to share knowledge on successful localization, a strong positive influence was found (β = 0.31 and P < 0.01). Therefore, Hypothesis 4 is also accepted. Finally, the findings revealed that localization holds a strong positive impact on firm performance (β = 0.55 and P < 0.01), supporting Hypothesis 5.

An indirect analysis was applied to determine the intervening role of expatriates' ability to share knowledge in the relationship between the HRD practices and localization success. The results of the present study demonstrate that expatriates' ability has no mediating link between HRD practices (training, performance evaluation and rewards) and localization success. Thus, Hypotheses 6 is rejected.

Table 4. *Indirect Relationship Results*

Paths	Significance		Outcome
	Direct effect	**Indirect Effect** *via Ability to share knowledge*	
Training on Localization success via expatriates' ability to share knowledge	*P*=0.02	*p*<0.13	Not Mediated
Performance evaluation on Localization success via expatriates' ability to share knowledge	*p*<0.01	*p*<0.07	Not Mediated
Rewards on Localization success via expatriates' ability to share knowledge	*p*<0.01	*p*<0.11	Not Mediated

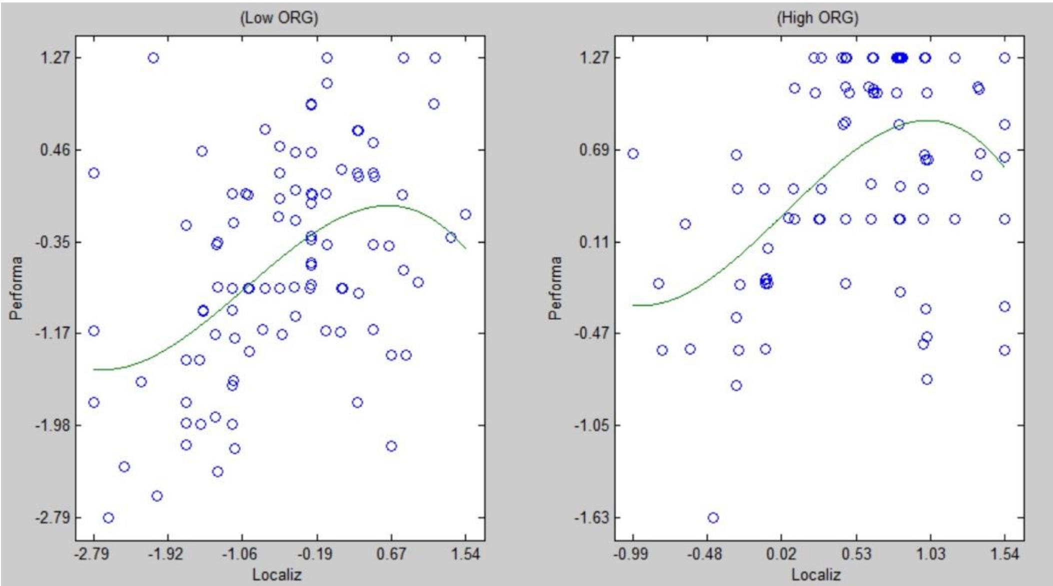

Figure 3. *The Moderating Role of Organizational Commitment*

We assumed organizational commitment would have a moderating effect on the association between successful localization and firm performance. In order to assess the potential for moderating effect, successful localization as a predictor and organizational commitment as a moderator were multiplied to generate an interaction construct (successful localization × organizational commitment) to predict firm performance. The predicted standardized path coefficient for the impact of the moderator on firm performance ($\beta = 0.25$; $p < 0.01$) is significant (see Figure 2 and Figure 3). Thus, organizational commitment reinforced the positive link between successful localization and firm performance (see Figure 2 and Figure 3) and hence, Hypothesis 7 is accepted.

In general, the HRD practices in the present study explains 27% of the expatriates' ability to transfer knowledge, 9% of the ability for successful localizations, whereas 24% for firm performance. In accordance with

Sarstedt et al (2014) for the assessment of the predictive validity of the present model, a blindfolding method with an omission distance of 7 was implemented. This generated cross-validated redundancy (Q^2 Stone-Geisser) values for the four dependent variables that are greater than zero (expatriates' ability: 0.27; localization success: 0.10; firm performance 0.24), thereby indicating the predictive validity of the research model.

DISCUSSION OF FINDINGS

Results show that training had a significant influence on the dissemination of knowledge followed by performance evaluation. Rewards had a moderately low effect. This signifies that all the three indicators successfully enhance expatriates' competencies to transfer knowledge to local employees. These results are consistent with prior studies. Salim et al. (2011) claimed that in order to improve expatriate managers' knowledge dissemination to local employees, the firm needs to maintain a high level of support. Furthermore, HRD practices such as training, evaluation and rewards enrich the expatriates' knowledge dissemination to local employees (Hislop, 2002; Huselid, 1995; Moideenkutty et al., 2016). In addition, training had a significant impact on the ability of expatriates to transfer knowledge. This aligns with the findings of Tsang (1999) and Moideenkutty et al. (2016) where a significant association between training and the competency of expatriates has been found. We argued that with the increase in training, the capabilities of expatriates in transferring knowledge to local employees becomes higher, thus it is likely to conclude that training has a positive impact on expatriates' ability.

Considering the direct influence of the expatriates' ability in transferring knowledge on the success for localization, results suggested that expatriates' ability was found to have a positive influence on successful localization. This implies that if expatriates do not disseminate knowledge to local employees, localization may not succeed in the Omani aviation sector (Chang et al., 2012).

The results show that expatriates' ability to transfer knowledge had no meditating role in the association between HRD practices and localization. Therefore, it can be claimed that HRD practices may not necessarily increase the expatriates' knowledge dissemination to local employees and the firm performance, unless it results in the achievement of successful localization. As for the moderating role of organisational commitment, the results of the current study indicated that the relationship between localization and firm performance is higher when the organisation has high commitment towards localization. This result indicates that originations that are supportive with enhancing their local staff effectiveness, have clear goals for localization and have detailed and concrete plans for localization, would help to achieve high performance.

CONCLUSION

The main aim of the current paper is to investigate the impact of HRD practices on the abilities of expatriates in transferring knowledge and firm performance. To achieve this, an integrated model was developed and tested to oversee the simultaneous influence of three diverse firm characteristics (training, performance evaluation and rewards) on the competency of expatriates' ability to transfer knowledge. The model was tested by using primary data collected from the staff of the aviation sector operating in the Sultanate of Oman. Finally, it was found that organizational commitment plays a moderating role in the direct connection between localization and performance.

These results hold significant theoretical and practical implications. Unlike numerous previous studies, not all human resource practices were relevant to the Omani aviation sector, from a theoretical perspective. This study argues that such results are due to the high percentage of successful localization that has been achieved (Khan & Krishnamurthy, 2016). Moreover, these inconclusive findings could be related to the high frequency of training in the aviation sector which made the local employees active in seeking knowledge from expatriates, and thus positively influences the ability of expatriates to share their knowledge (Elbaz et al., 2018).

The current article contributes to the tourism literature by investigating the key predictors and outcomes of localization in tourism-related sectors (i.e., the aviation sector) within the MENA region. This is one of the limited studies that examines the *Omanization* subject, particularly within the aviation sector in Oman. In addition, this study is considered the first attempt to empirically examine a comprehensive structural model, incorporating such latent constructs (HRD practices, knowledge sharing, localization, organizational commitment, and firm performance), in the MENA region, especially in Oman. Another theoretical contribution of the current paper is to evaluate the intervening impact of knowledge sharing between HRD practices and localization, within the aviation context in the

GCC nations. Furthermore, unlike the previous studies that employed organisational commitment as an independent variable, this study investigated its moderating effect. In this regard, it confirms the positive interaction impact of organizational commitment on the direct relation between localization and performance.

In practice, these results hold significant implications for the decision-makers in air transportation in Oman, GCC, the MENA and other similar countries. Evaluation, and rewards are important antecedents towards the achievement of successful localization, which would in turn improve the overall of the aviation sector. Decision-makers are therefore urged to pay attention to such practices in order to drive the firm performance and localization success. This can be achieved by establishing effective teamwork, encouraging open communication between employers and their subordinates and building mutual trust. Moreover, it is very important to value and recognize the employees who are committed to knowledge_transfer.

Furthermore, this study considered the vital role of achieving localization in enhancing the Omani aviation sector. In this regard, the present study proved that the positive impact of HRD practices and expatriates' knowledge dissemination is attributed to the achievement of successful localization and the enhancement of firm performance. Consequently, this raises awareness of the inevitable positive impact that HRD practices should have in achieving localization as well as improving the firm performance. Furthermore, it is important for countries which have adopted the localization process to use and encourage HRD practices effectively in order to achieve localization.

Like any other studies, this paper has a number of limitations that can be handled in future studies. First, the current study did not consider the role of local employees towards achieving successful localization. Therefore, further studies are required in order to investigate the moderating role of local employees' opportunity between the competency of expatriates and localization success. In addition, due to the unavailability of expatriate percentage in each firm, this study uses subjective measures to measure localization, thus, future studies are recommended to use the objective measures for localization as in Law et al. (2009). Furthermore, this current study investigates the role of expatriate ability in knowledge dissemination, and future studies may investigate other competencies of expatriates such as their motivation and seeking opportunity (Chang et al., 2012).

ACKNOWLEDGMENT

This research is supported by the Salalah College of Applied Sciences, University of Technology and Applied Sciences, Oman. We would like to thank the human resources in the Omani aviation sector for circulating our questionnaire. We are also grateful to our respondent aviation employees for participating in the study.

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APPENDIX

Confirmatory Factor Analysis (PLS Approach)

Construct	T. Test	Confidence intervals 2.5%	97.5%	P. Value	Loadings
Knowledge Dissemination					
Expatriates' managers have a lot of good ideas worth sharing	13.847	0.724	0.963	0.000	(0.843)
Expatriates' managers are capable to share important information	13.311	0.695	0.935	0.000	(0.815)
Expatriates' managers have the ability to communicate good ideas about your job (e.g., Knowledge, skills, and experience) to solve difficulties in the knowledge transfer process.	14.042	0.734	0.973	0.000	(0.853)
Expatriates' managers possess superior functional competencies (knowledge, skills, and experience) to solve difficulties in the knowledge transfer process	13.204	0.689	0.930	0.000	(0.809)
Training					
My company works hard to develop local employees.	13.825	0.723	0.962	0.000	(0.842)
My company works hard to train our local employees to accept the managerial concepts and methods of our company.	14.009	0.733	0.971	0.000	(0.852)
My company works hard to train our local employees so that they have better communication with our company.	14.242	0.745	0.983	0.000	(0.864)
My company gives local employees overseas assignments to help them to understand our overseas business and management culture.	13.241	0.691	0.932	0.000	(0.811)
My company assigns expatriate managers to coach and train local managers.	13.741	0.718	0.957	0.000	(0.838)
My company encourages expatriate managers to coach and train local managers.	N/A	N/A	N/A	N/A	N/A
My company provides a lot of technical and business training to local managers.	11.915	0.701	0.941	0.000	(0.821)
My company provides a lot of managerial training to local manager	13.825	0.619	0.862	0.000	(0.740)
Performance Evaluation					
In my company, if expatriate managers cannot develop local replacements, their performance evaluations will be affected.	12.183	0.633	0.876	0.000	(0.755)
In my company, expatriate managers who are unable to develop local managers will be transferred or replaced.	13.370	0.698	0.938	0.000	(0.818)
In my company, successful development of local talent is an important dimension of expatriate managers' performance.	12.763	0.665	0.907	0.000	(0.786)
In my company, inability to develop local managers will have serious negative impact on expatriate managers' performance evaluations.	13.109	0.684	0.925	0.000	(0.804)
Rewards					
My company provides financial rewards (e.g., bonuses) to expatriate managers who develop local talent successfully.	12.595	0.656	0.898	0.000	(0.777)
My company provides non-financial rewards (e.g., public recognition, prizes) to expatriate managers who develop local talent successfully.	13.949	0.729	0.968	0.000	(0.849)
My company provides financial incentives (e.g., bonuses) to local managers who learn from expatriate managers and become good managers.	14.259	0.746	0.984	0.000	(0.865)
My company provides non-financial incentives (e.g., prizes and training opportunities) to local managers who learn from expatriate managers and become good managers.	13.403	0.700	0.940	0.000	(0.820)
Successful Localization					
The progress of localization in my company is very successful.	11.628	0.603	0.847	0.000	(0.725)
In my company, many local managers have successfully replaced expatriate managers.	12.575	0.655	0.897	0.000	(0.776)
In my company, many local managers have participated in making important strategic decisions.	13.651	0.713	0.953	0.000	(0.833)
With respect to the current number of expatriate managers in my company, I am satisfied with our localization progress.	12.882	0.672	0.913	0.000	(0.792)
My company has developed a group of competent local managers who are ready to replace expatriate managers.	12.620	0.657	0.899	0.000	(0.778)
My company has developed a sufficient number of local managers to replace expatriate managers.	14.237	0.745	0.982	0.000	(0.864)
Organizational Commitment					
The top management of my company implements localization aggressively.	12.102	0.629	0.872	0.000	(0.751)
My company has clear goals for localization.	14.166	0.741	0.979	0.000	(0.860)
My company has clear, detailed, and concrete plans for localization.	14.137	0.739	0.977	0.000	(0.858)
Localization is an important strategic goal of my company.	13.993	0.732	0.970	0.000	(0.851)
The top management of my company is willing to commit time, effort, and financial resources to achieve localization goals.	12.974	0.677	0.918	0.000	(0.797)
Overall, my company tries hard to develop local managers and hopes that it can replace expatriate managers.	N/A	N/A	N/A	N/A	N/A

Note: N/A. Not Applicable.

DOI: 10.30519/ahtr.833629

Advances in Hospitality and Tourism Research (AHTR) 2021
An International Journal of Akdeniz University Tourism Faculty Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online) 444-466
Webpage: http://www.ahtrjournal.org/

UNDERSTANDING AIRLINE ORGANIZATIONAL ATTRACTIVENESS USING INTERPRETIVE STRUCTURAL MODELLING

Sanaz VATANKHAH [1]

Department of International Business, Marketing and Tourism, University of Bedfordshire, UK

ORCID: 0000-0001-9604-8356

Shiva ILKHANIZADEH

School of Tourism and Hotel Management, Cyprus International University, Mersin 10, Turkey

ORCID: 0000-0002-9362-663X

ABSTRACT

This study investigates whether and how key components of organizational attractiveness are interrelating to impose the maximum positive impact on the air transportation job market. An expert panel was shaped to gauge judgments regarding the driving power of each criterion over the other. The results of Interpretive Structural Modelling (ISM) revealed that organizational and job characteristics are the main criteria with the most driving power in the model fostering perceived fit. In addition, corporate branding and corporate social responsibility (CSR) demonstrated the highest dependence on the other criteria. The results were further validated through Impact Matrix Cross-reference Multiplication to a classification (MICMAC). The hierarchical pattern of study findings offers theoretical contributions to the study of organizational attractiveness. Practical implications of the results and study limitations are also provided.

Article History

Received 30 November 2020
Revised 25 April 2021
Accepted 30 April 2021
Published online 18 June 2021

Keywords

airline
interpretive structural model
MICMAC
organizational attractiveness
decision making

INTRODUCTION

Demand for air transportation services is rising globally in terms of both the market for passenger transfer and the need for freight services. According to the statistics (International Air Transport Association (IATA) annual report, 2019), there was a 7.4% increase in industry-wide revenue passenger kilometers (RPK) and a 9.7% increase in industry-wide freight tonne

[1] Address correspondence to Sanaz Vatankhah (PhD), Department of International Business, Marketing and Tourism, University of Bedfordshire, Luton, UK. E-mail: sanaz.vatankhah@beds.ac.uk

kilometers (FTK) in 2017. Under these circumstances, rivalry in the air transportation market increases, as current and potential competitors would make considerable effort to pursue a competitive market position. It is assumed that a talented and qualified pool of employees would affect an organization's strategic performance and are considered sources of competitiveness in the market (Murray & Ayoun, 2010). Understanding how job seekers evaluate an organization's attractiveness would enable organizations to appropriately design and manipulate organizational resources and competencies (Bohlmann et al., 2018; Turban & Greening, 1997). This is especially important for the aviation industry, where its specific characteristics positioned this industry as a challenging environment to work in (Sohn et al., 2015). Director-General and CEO of IATA (2019, p.9), Alexandre de Juniac argues that:

> "*People are the key resource to take aviation forward. Our industry provides high-quality jobs that add value to the economies in which they are located. Aviation careers are attractive, but there is growing concern about how the industry will find sufficient technically skilled employees quickly enough to keep pace with demand.*"

Accordingly, the airline industry as a subset of the transportation industry has been chosen to understand how commercial airlines can enhance organizational attractiveness to attract qualified job seekers. Since the adoption of proper strategies to attract talented job seekers to the organizations is well understood and noticed in a suitable environment (Bankins & Waterhouse, 2019; Lewis & Frank, 2002), the phenomenon of organizational attractiveness (OA) is receiving comprehensive attention among organizational researchers (e.g., Brunner & Baum, 2020; Carballo-Penela, 2019; Younis & Hammad, 2020; Zhang et al., 2020). Specifically, organizations suffering from the lack of attractiveness in the job market require a general framework to guide them on improving their image among job seekers (Rynes & Barber, 1990).

Purpose of the study

This study aims to understand the processes by which key configurational components of OA affect airline companies' attractiveness in the job market. Specifically, this study endeavors to identify the interrelations among key OA attributes to understand each criterion's characteristic regarding its driving power and dependency in the airline industry. Underpinned by the tenets of interpretive structural modeling, a list of key attributes has been initially identified through a careful review of comparative literature. The list was then used to design the questionnaire, which can address the interrelations using several pairwise comparisons among designated attributes. This methodological solution is widely used in tourism research (e.g., Jain & Ajmera, 2018; Lee et al., 2015; Ranjan Debata et al., 2013) and is well known for its ability to transform complicated problems into simple interrelated decision-making levels (Attri et al., 2013; Kuo et al., 2010).

Contributions of the study

Two major contributions can be attributed to the current study. Firstly, this study used triangulation to validate the results (Hartley & Sturm, 1997). Triangulation was applied by collecting data from different sources/methods, namely synthesis of comparative literature pertaining to key components of organizational attractiveness (i.e., qualitative approach) and experts' opinion rating the determining impact of each element on another (i.e., quantitative approach). Triangulation improves the quality of the study (Petter & Gallivan, 2004) as well as the accuracy of findings (Denzin, 2007, 2017; Maxwell, 2012), and its application is highly recommended in tourism studies (Koc & Boz, 2014; Vatankhah et al., 2019). This study, in addition, develops an interpretive structural model of airline organizational attractiveness (AOA) to demonstrate the interrelations among designated components of OA in the airline industry. Even though OA's notion has received considerable research attention, this phenomenon has been under-researched in the airline industry, and existing literature conferring to OA has not examined OA's key components' relationships. This study fills in the research gap by implementing ISM to develop AOA hierarchical framework. ISM is a powerful methodological solution to analyze interactive relationships among key configurational dimensions of a particular phenomenon (Ali et al., 2018; Attri et al., 2013; Sushil, 2012). In all, the application of methodologies as mentioned earlier to develop an interpretive structural model of AOA would be considered as a response to call for more empirical research enhancing current knowledge regarding key components of OA and the process by which those factors are interrelating (e.g., Bohlmann et al., 2018; Kröll et al., 2018; Sommer et al., 2017).

LITERATURE REVIEW

Job choice has long been of great interest for both scholars and practitioners as adequate knowledge of driving factors affecting job seekers' attraction to an organization would be a strategic tool for managers to design and develop appropriate organizational strategies. Based on this realization, several scholars have paid attention to this phenomenon from different perspectives. Starting to note the importance of organizational characteristics such as organizational size and geographical dispersion and organizational policies and strategies in attracting job seekers, Turban and Keon (1993) used interactionist perspective to study the impact of those attributes on job seekers' attraction to the organization. They have found a significant association between an organization's positive characteristics and job seekers' attraction to the organization. Mainly, organizational characteristics fostering organizational attraction have been manifested through family-friendly human resource policies (Honeycutt & Rosen, 1997); centralization and rewards structure (Turban & Keon, 1993); improved recruitment practices, improved employment inducements, and targeting nontraditional applicants (Rynes & Barber, 1990); organizational values (Cable & Judge, 1996); formal mentoring programs (Allen & O'Brien, 2006); organizational personality and instrumental factors (Kausel & Slaughter, 2011) and level of internationalization and centralization (Lievens et al., 2001) in comparative literature. Organizational characteristics have been used in a vast majority of studies relative to OA and is known as the most significant determinant of OA capable of attracting applicants' initial attraction to the organization (Huang et al., 2020).

Besides, the significant impact of several key attributes, including pay/salary (Lievens et al., 2001; Sohn et al., 2015); flexible work practices in terms of flexible work schedules, telecommuting and sabbaticals (Kröll et al., 2018), and quality of mentoring programs (Spitzmüller et al., 2008) have been studied by organizational scholars categorized as job characteristics. Lambert et al. (2019) cited that uncovering distinctive job characteristics would positively tackle organizational attractiveness in the job market (Rynes & Miller, 1983). Review of relative literature further revealed another class of attention using fit perception as a key determinant of job seekers' attraction to organizations. Cable and Judge (1996) strongly recommended fit perception as a driving component of organizational attractiveness. That is, job seekers are primarily attracted to organizations (i.e., person-organization fit) and/or the job (i.e., person-job fit) with which they feel congruent in terms of norms and values (Cable & Judge, 1996; Carless, 2005; Judge & Cable, 1997; Lievens et al., 2001; Sohn et al., 2015; Yu, 2014). Perceived fit not only fosters organizational attraction but also affects applicants' ultimate job choice (Backhaus, 2016; Bretz & Judge, 1994). Scholars have used two subsets of perceived fit to understand its impact on applicants' job choice (Cable & Judge, 1996), organizational commitment and job motivation/satisfaction (Nur Iplik et al., 2011), organizational attraction (Judge & Cable, 1997) and work values (Judge & Bretz, 1992). Particularly, employees who perceive fit with their current job position are found to be healthier and high performing comparing to those who are suffering from the mismatch between their values and those of the job (Caldwell & O'Reilly, 1990; Kristof-Brown et al., 2005; Park et al., 2011). In addition, person-organization fit appears to promote applicants' intention and actual job offer decision (Carless, 2005).

Several other factors have also been identified as drivers of organizational attraction, including organizational prestige (Highhouse et al., 2003); quality of online presence (Cober et al., 2003); recruitment advertisement, and positive word of mouth (Van Hoye & Lievens, 2005); corporate web-site and information sources (Lambert et al., 2019; Lin, 2015; Nadler et al., 2017); corporate prestige and image (Duarte et al., 2014; Held & Bader, 2018; Schreurs et al., 2009; Younis & Hammad, 2020) and employee-based brand equity (Jiang & Iles, 2011). In all, the factors mentioned above can comprise a larger component in terms of corporate branding. According to De Chernatony (1999), corporate branding utilizes organizational inputs to shape a unique characteristic for the organization and can enhance organizational attractiveness in the job market. This is especially a common practice taken by leading airlines (e.g., southwest airlines) in terms of employee branding (Miles & Mangold, 2005).

Recently introduced to the academic literature, CSR has also been found as a significant predictor of organizational attractiveness (Duarte et al., 2014; Story et al., 2016; Waples & Brachle, 2020), and its determining impact on organizational attractiveness is recommended in the current literature (e.g., Joo et al., 2016; Zhang et al., 2020). CSR initiatives have been categorized in three broad dimensions: environmental, social and economic issues. Environmental issues (e.g., emission reduction and aircraft noise reduction programs) are the most practiced dimension in the airline industry (Cowper-Smith & de Grosbois, 2011). This phenomenon may take any shape and approach such as morality (van Prooijen & Ellemers, 2015); diversity management (Albinger & Freeman, 2000; Backhaus et al., 2002; Murray & Ayoun, 2010; Umphress et al., 2007); human rights, employee relations, philanthropy and environment (Albinger & Freeman, 2000; Murray & Ayoun, 2010); perceived CSR, its motives and overall justice (Joo et al., 2016); CSR communication and advertisement (Belinda et al., 2018); sustainability (Sohn et al., 2015) and level of CSR engagement (Duarte et al., 2014). According to Belinda et al. (2018), CSR's adoption is not enough to develop organizational attractiveness, but the way organizations communicate their CSR initiatives also matters. Despite its strong predictive capability in many disciplines, however, "previous literature has overlooked the complex nature of the decisions that potential employees make about job choices while addressing the isolated effect of CSR on organizational attractiveness" (Lis, 2018, p. 106).

Besides the above-mentioned organizational level factors, there is some academic evidence on the impacts of personality characteristics of job seekers affecting their choice of proposed job (e.g., Held & Bader, 2018, Kausel & Slaughter, 2011; Lievens et al., 2001; Nadler et al., 2017; Schreurs et al., 2009; Umphress et al., 2007). In light of fit theory, specifically, Judge and Cable (1997) argued that applicants' choice of an organization is primarily based on their personal characteristics and personality traits. Accordingly, determining the impact of personality characteristics and its interaction with organizational characteristics leading to applicants' choice of an organization should be further developed (Lievens et al., 2001; Kausel & Slaughter, 2011).

Against this backdrop yet, it appears that OA has been remained a challenging concept to explain (Backhaus et al., 2002). Specifically, a review of comparative literature revealed that no general framework exists to clarify the process by which OA components may interact with each other. According to Helmreich and Foushee (2010, p.17), "the fact that process variables have been largely ignored in research does not indicate a lack of awareness of their importance; rather, it reflects the difficulty of conceptualizing and measuring them." Under this circumstance, this study bridges the research gap by proposing significant OA components and analyzing the interrelations among those components. In addition, this study contributes to tourism management literature by proposing the hierarchical model of OA in the airline industry, which is currently known as a challenging place for talented graduates (Sohn et al., 2015).

METHODOLOGY

This study uses the ISM technique to understand how OA's key configurational components are interrelating with each other. This procedure identifies each factor's position in terms of their ability to affect other factors (i.e., driving power) or, in contrast, to be manipulated by independent factors (i.e., dependency). ISM is "a process that transforms unclear and poorly articulated mental models of systems into visible, well-defined models useful for many purposes" (Sushil, 2012, p. 88), which involves several steps to be taken to develop the ultimate ISM model.

Developing ISM model

Step 1: Step one requires the identification of key configurational components of the topic of interest. Accordingly, through a careful review of comparative literature and synthesis of findings, key factors determining AOA are listed (Table 1).

Table 1. *Key configurational factors of AOA*

Criteria	Definition	Authors
Organizational characteristics (OC)	OC defines an organization's internal resources and competencies that affect members' job attitudes and behaviors (Turban & Keon, 1993). An airline company may involve factors including safety image; reputation; airline size; airline work environment; airline nationality, location, and geographical dispersion.	Allen and O'Brien (2006); Cable and Judge (1996); Chapman et al. (2005); Gomes and Neves (2011); Highhouse et al. (2003); Kröll et al. (2018); Lievens et al. (2001); Nadler et al. (2017); Rynes and Barber (1990); Sivertzen et al. (2013); Sohn et al. (2015); Spitzmüller et al. (2008); Turban and Keon (1993); van Prooijen and Ellemers (2015).
Job characteristics (JC)	JC refers to "the content and nature of the tasks themselves" (Spector, 1997, p. 31) and typically involves training, empowerment, rewards and compensation, pay, job security, and promotion.	Chapman et al. (2005); Gomes and Neves (2011); Kröll et al. (2018); Sivertzen et al. (2013); Sohn et al. (2015); Spitzmüller et al. (2008).
Perceived fit	Perceived fit usually involves two subsets in terms of person-organization fit, defined as the level of congruency between one's values and those of the organization, and person-job fit defined as the level of compatibility between one's values and those of the job/task (Cable & Judge, 1996).	Cable and Judge (1996); Carless (2005); Judge and Cable (1997); Sivertzen et al. (2013); Yu (2014).
Corporate social responsibility (CSR)	CSR is a "concept whereby companies integrate social and environmental concerns in their business operations and their interaction with their stakeholders voluntary" (Dahlsrud, 2008, p. 7), often composed of human rights, philanthropy, environmental issues, employee relations, and diversity management.	Albinger and Freeman (2000); Backhaus et al., (2002); Belinda et al. (2018); Duarte et al. (2014); Joo et al. (2016); Lis (2018); Murray and Ayoun (2010); Sivertzen et al. (2013); Sohn et al. (2015); Story et al. (2016); Umphress et al. (2007); Waples and Brachle (2020); Zhang et al. (2020).
Corporate branding (CB)	CB refers to "creating an organization's unique characteristics" (De Chernatony, 2001; Rode & Vallaster, 2005, p. 121), representing factors in terms of image and prestige, positioning, value proposition, advertisement, and public relations.	Cober et al. (2003); Held and Bader (2018); Jiang and Iles (2011); Lin (2015); Van Hoye and Lievens (2005); Younis and Hammad (2020).

Step 2: A matrix of the contextual relationship and interaction among a set of listed AOA factors should be established. According to Eq. 1, the matrix will comprise ten pairwise comparisons among five components of AOA.

$$x=\frac{n(n-1)}{2} = 5(5-1)/2 = 10 \qquad (1)$$

with n representing the number of designated factors in the proposed configuration of the AOA model.

Step 3: Having designed the matrix, a panel of experts, including industry experts in the Iranian aviation and airline industry, were invited to fill in the matrix. A judgmental sample of 28 experts was invited for data collection. According to Etikan et al. (2016, p. 2), judgmental sampling "is the deliberate choice of a participant due to the qualities the participant possesses." A copy of the questionnaire with a cover letter explaining the study's aims and objectives and ensuring the confidentiality of data was sent to the experts. As shown in Table 2, Sixteen airline experts from Iran agreed to participate as panel members and completed the questionnaire. A sample of the questionnaire can be found in the appendix.

Table 2. *Features of the study sample*

Airline*	Position	Tenure
A1	Executive HR manager	More than 15 years
A1	General marketing manager	More than 15 years
A1	Head of operations department	More than 15 years
A1	Head of cabin services	More than 15 years
A2	Marketing and business development director	More than 10 years
A2	Senior marketing officer	More than 10 years
A2	Senior HR executive officer	More than 10 years
A3	Head of the training department	More than 15 years
A3	Operations manager	More than 10 years
A3	Head of business and policy development unit	More than 10 years
A4	Head of business and marketing department	More than 10 years
A4	General HR manager	More than 18 years
A4	Senior HR development officer	More than 10 years
A4	International affairs director	More than 15 years
A5	Executive research and development officer	More than 15 years
A5	Head of operations department	More than 18 years

* *Due to the confidentiality of data collection, the names of participating airlines are kept anonymous.*

Accordingly, a structural self-interaction matrix (SSIM) of AOA factors was built (Table 3), which contained several pairwise comparisons among AOA factors. Following notations have been proposed to the expert panel to address interrelations among AOA factors.

- If the row listed i facilitates reaching the factor in the column listed j; V will be inserted.
- If the factor in the row listed i can be obtained by the column listed j; A will be inserted.
- If the factor in the row listed i and factor in the column listed j help to reach each other; X will be inserted; and

- If the factor in the column listed i and the factor in the column listed j are unrelated, O will be inserted.

Table 3. *Structural self-interaction matrix (SSIM)*

Issues	OC	JC	Perceived fit	CSR	Branding
Organizational characteristics (OC)	**V**	V	V	V	V
Job characteristics (JC)	A	**V**	V	O	O
Perceived fit	A	A	**V**	O	O
Corporate social responsibility (CSR)	A	O	O	**V**	X
Branding	A	O	O	X	**V**

Step 4: As required by ISM, at this step, a reachability matrix should be built and transitivity among relationships must be checked (i.e., if factor A is linked to factor B and factor B is linked to factor C, then factor A is linked to factor C). As shown in Table 4, binary digits should be replaced by the notation as mentioned above.

Table 4. *Binary digits*

	Notation	Reciprocal notation	Numeric value	Reciprocal numeric value
i improves j	V	A	1	0
i and j are not related	O	O	0	0
i and j are interrelated	X	X	1	1

Table 5. *Initial reachability matrix*

Issues	OC	JC	Perceived fit	CSR	Branding
Organizational characteristics (OC)	**1**	1	1	1	1
Job characteristics (JC)	0	**1**	1	0	0
Perceived fit	0	0	**1**	0	0
Corporate social responsibility (CSR)	0	0	0	**1**	1
Branding	0	0	0	1	**1**

Table 6. *Final reachability matrix*

Issues	OC	JC	Perceived fit	CSR	Branding	**Driving Power**
Organizational characteristics (OC)	1	1	1	1	1	5
Job characteristics (JC)	0	1	1	1*	1*	4
Perceived fit	0	0	1	1*	1*	3
Corporate social responsibility (CSR)	0	0	0	1	1	2
Branding	0	0	0	1	1	2
Dependency	1	2	3	5	5	

* *denotes transitivity*

The initial reachability matrix is illustrated in Table 5. Using Table 4 and the adaption of the rule of transitivity, the final reachability matrix has been developed (Table 6).

Step 5: The final reachability matrix will be partitioned into hierarchical levels. Partitioning factors in various levels will help to build the hierarchy of ISM, using the intersections between reachability set (i.e., considering factor "A," the reachability set would be containing factor "A" itself and other factors which are affected by factor "A") and the antecedent set (i.e., considering factor "Y," the antecedent set would be containing factor "Y" itself and other factors affecting it). This process continues in several iterations till there will be no more factors left for partitioning. The results of the four iterations are provided in Tables 7-10.

Table 7. *Level partition (Iteration 1)*

Issues	Reachability set	Antecedent set	Intersection	Level
Organizational characteristics (OC)	1, 2, 3, 4, 5	1, 5	1, 5	
Job characteristics (JC)	2, 3, 4, 5	1, 2	1, 2	
Perceived fit	3, 4, 5	1, 2, 3	3	
Corporate social responsibility (CSR)	4, 5	1, 2, 3, 4, 5	4, 5	**I**
Branding	4, 5	1, 2, 3, 4, 5	4, 5	**I**

Table 8. *Level partition (Iteration 2)*

Issues	Reachability set	Antecedent set	Intersection	Level
Organizational characteristics (OC)	1, 2, 3	1	1, 5	
Job characteristics (JC)	2, 3	1, 2	2	
Perceived fit	3	1, 2, 3	3	**II**

Table 9. *Level partition (Iteration 3)*

Issues	Reachability set	Antecedent set	Intersection	Level
Organizational characteristics (OC)	1, 2	1	1	
Job characteristics (JC)	2	1, 2	2	**III**

Table 10. *Level partition (Iteration 4)*

Issues	Reachability set	Antecedent set	Intersection	Level
Organizational characteristics (OC)	1	1	1	**IV**

Step 6: A directed graph should be established at this step, and then the transitive relations should be checked to obtain the ultimate ISM model. The ultimate hierarchical ISM is represented in Figure 1.

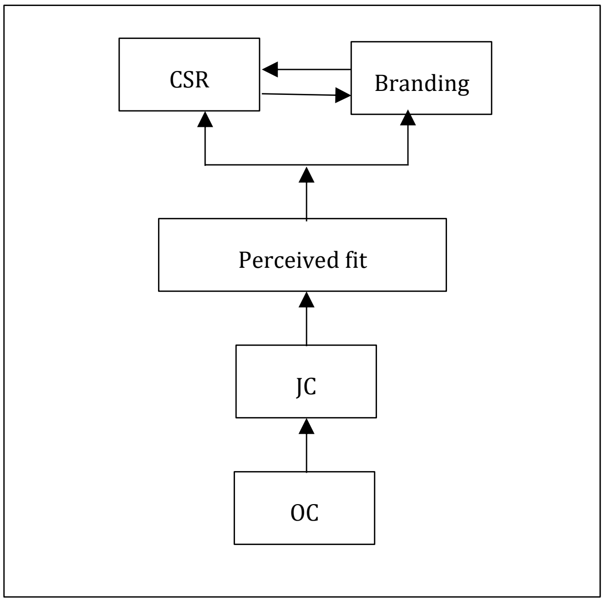

Figure 1. *Interpretive structural model of AOA*

Step 7: As the final step, the ISM model should be checked for logical inconsistencies, and if any, the corrections should be made. Hence, the ultimate ISM model results were sent back to the expert panel members to check for possible logical inconsistencies. There were no major concerns regarding the feasibility of configuration and interrelations of the factors in ISM. Therefore, no changes were made to the model.

The application of MICMAC

This study also applied MICMAC to clarify and simplify ISM results (Duperrin & Godet, 1973; Warfield, 1974, 1994). As shown in Figure 2, MICMAC contains four clusters defining each factor's position in the ISM hierarchy. Factors at the bottom of the hierarchy would usually be found in Clusters I and/or IV. These factors show low dependency on other factors in the model while having a range of driving power over other factors. By moving upwards to the top of the hierarchy, factors will show both the characteristics of dependency and driving power over other factors (Cluster III characterized with high driving and high dependence power). These factors are linking autonomous and independent criteria to other criteria in upper levels of the hierarchy. However, factors positioned at the top of the hierarchy usually fall into Cluster II known as dependent criteria with high dependence power and low driving power.

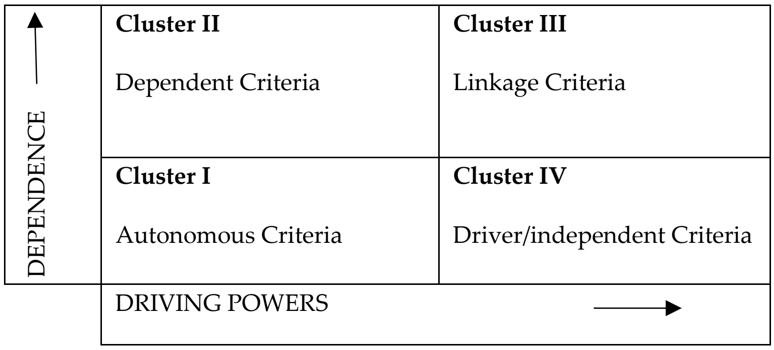

Figure 2. *Basic graphical representation of MICMAC analytical tool*

Under these circumstances, MICMAC analysis results revealed that organizational characteristics are the most significant factor in the ISM hierarchy with the strongest driving power over other factors. Job characteristics have been shown to demonstrate the same power with organizational characteristics sharing the same cluster (i.e., Cluster IV). Perceived fit has fallen in the middle of the matrix with moderate dependency on organizational and job characteristics and moderate driving power over corporate branding and CSR. This factor eventually represents the characteristics of a linkage factor connecting criteria at the lower levels of the hierarchy to the higher levels. Corporate branding and CSR are positioned as dependent factors in Cluster II while having interrelations with each other at the same level. These factors are not only affected by the manipulation of lower-level factors but are also reinforcing each other at the top of the hierarchy. A graphical representation of MICMAC analysis is provided in Figure 3.

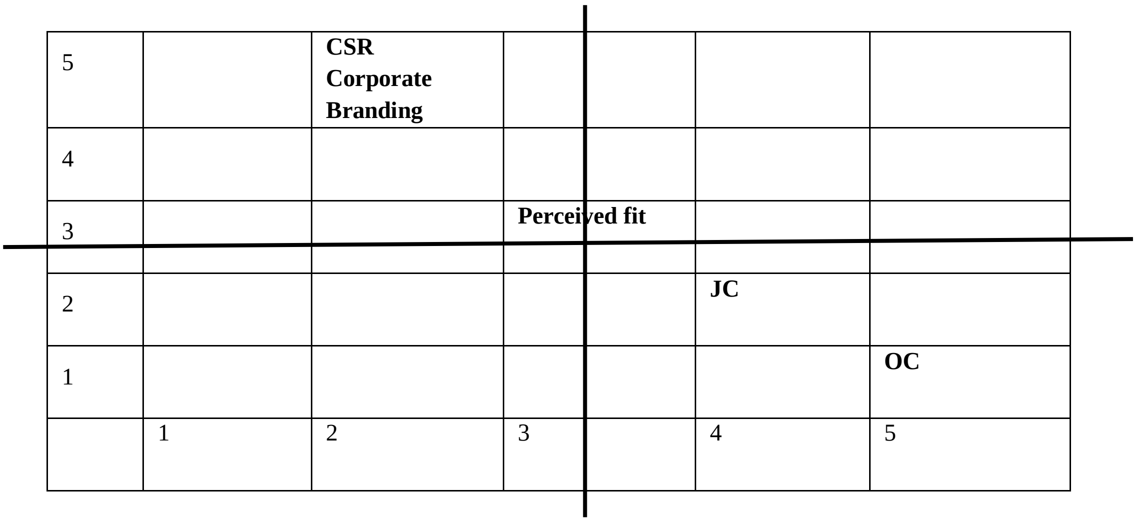

Figure 3. *MICMAC analysis for airline attractiveness attributes*

DISCUSSION

Airline companies are struggling to survive the highly fragmented air transportation market. It has been noticed that the industry is showing a great net profit of $30 billion with an 8 percent return on invested capital, which makes this industry attractive to potential investors (IATA annual report, 2019). Therefore, a sustained competitive position is a critical strategic practice for airline managers at various managerial levels. Specifically, qualified and talented human resources are considered significant competitiveness sources for airline companies (Chen & Chang, 2005; Erkmen & Hancer, 2015). According to Yeh (2014), high-performing frontline service employees in the airline industry would affect airline performance through enhanced customer interactions and services. Therefore, it seems plausible for airlines to invest in strategic ways of attracting and retaining qualified and talented job seekers. Enhancing organizational attractiveness in the job market may be considered as a remedy to the war for talent. This is especially the case for the airline industry, to which less talented graduates are attracted. This may be because airline occupations are confronted by challenging characteristics of aviation occupations in terms of long night shifts, stress, jetlag, and work-family conflict (Chen & Kao, 2011; Hsu & Liu, 2012; Ng et al., 2011) and the knowledge and skills they acquire as airline employee may rarely be transferable to other industries (Liang & Hsieh, 2005; Vatankhah et al., 2017).

Against this background, this study provided an insight into the key factors fostering OA in the airline industry. In addition, this study applied ISM and MICMAC to further analyze the interrelations among identified factors. It appears that all five factors are significantly improving AOA. Particularly, organizational characteristics have been found as the most determining factor affecting job seekers' attraction to the airline. Job characteristics display the second most significant factor with which job seekers evaluate the vacancy and ultimately attract the airline. According to Turban and Keon (1993), job seekers are attracted to organizations based on perceived fit with the organization's job. The current study's findings are consistent with this argument, positioning perceived fit as the linkage factor. A job seeker would primarily evaluate organizational and job characteristics, and their intentions to pursue the job will be tackled if they perceived fit between their norms and values and those of the organization and the job. Finally, corporate branding and CSR are the last two factors determining how a qualified job seeker is attracted to the airline. According to the results, proper CSR adoption would strengthen the image of the airline and at the same time, proper branding strategies should be more focused on CSR practices. Job seekers and talented graduates are processing their information from corporate branding efforts and CSR activities. A brief discussion on interrelations among key factors is provided in Table 11. In all, proper design of organizational and job characteristics improves job seekers' perceived fit with both the organization and the job, ultimately resulting in a positive interpretation of corporate branding strategies and CSR efforts.

Table 11. *Interpretive matrix*

Issues	OC	JC	Perceived fit	CSR	Branding
Organizational characteristics (OC)	-	Supportive rules and regulations may positively affect the proper design of aviation jobs/tasks.	Organizational norms and values can be managed to align with the norms and values of the prospective job market.	Supportive strategies, rules, and practices concerning CSR	Supportive strategies, rules, and practices concerning corporate branding.
Job characteristics (JC)	0	-	Proper design of the job in terms of job demands may positively influence job seekers' perceived fit with the job.	Appropriate job design may encourage employee prosocial and pro-environmental values and initiatives	Transitive
Perceived fit	0	0	-	Transitive	Transitive
Corporate social responsibility (CSR)	0	0	0	-	CSR initiatives should be reflected in corporate branding.
Corporate branding	0	0	0	Corporate branding strategies should be aligned with CSR philosophy.	-

Theoretical contributions

Organizational attractiveness is well known for its ability to attract and retain a talented pool of job seekers. It is especially the case for the airline industry that seems to suffer from the lack of well-educated job seekers (Sohn et al., 2015) and high level of turnover rates (Chen, 2006; Karatepe & Vatankhah, 2014a; Schiffinger & Braun, 2020). This study adds to the ongoing debate in organizational attractiveness literature by developing an ISM that identified main factors affecting AOA as manifested through OC, JC, Perceived fit, CSR, and Corporate branding. In addition, the study contributes to the theory by unraveling the classification of identified factors via MICMAC. Specifically, JC and OC were found to the most powerful drivers of AOA. This is followed by Perceived fit that links the drivers to dependent factors in terms of CSR and Corporate Branding.

Implications

The proposed hierarchy of factors fostering AOA may be considered as the major theoretical contribution of the current study by enhancing the current understanding of the fundamental building blocks of AOA and the process by which they are related to each other. Nevertheless, ISM is a decision-making tool that helps managers practically decide on the problem's best solution. This technique is used to understand how different components of a particular phenomenon may interact to enhance the positive outcome to its optimum level. Besides, MICMAC gives further insight into the driving power and dependency characteristics of each criterion. Hence, the results of ISM and MICMAC provide a handful of solutions for airline managers who are managing to attract and retain high-performing qualified job seekers. First, this study synthesized relative literature on organizational attractiveness and adapted the synthesis results into the airline industry context. The results revealed that five factors in terms of organizational characteristics, job characteristics, perceived fit, corporate social responsibility, and corporate branding are significant factors affecting AOA. Airlines should pay close attention to the proper design and management of these five factors. In a more detailed evaluation, organizational and job characteristics have been found as the two factors with the most driving power in the proposed model. Therefore, managers are encouraged to take into consideration factors such as organizational culture, dispersion of its plants, and rules and regulations to facilitate next-level factors, namely job characteristics. This is especially one factor that can be properly manipulated to increase its attractiveness for job seekers. Appropriate design of the job, demands, and responsibilities affiliated with the job, pay and promotions offered to actual and prospective employees, job security confidence, work-family balance, flexible work schedule are strategic solutions that may affect AOA. Airline occupations are known as job positions whose skills acquired during employment cannot be easily transferable to other occupations. Accordingly, as other functions of job characteristics, airline companies' managers are suggested to provide job security and training to cope with aviation occupations' negative features (Karatepe & Vatankhah, 2014b).

In addition, the results of our study noted the significance of fit perception and OA in the airline industry. Therefore, several orientation programs would be needed to enhance job seekers' familiarity with the nature of the job and the organization's features. Besides, airline companies should attract job seekers who show relatively appropriate personality traits and aptitude. According to Goeters et al. (1993, p. 123), "basic aptitudes and personality traits are both important in determining the professional reliability of human operators" in the aviation industry. Careful analysis of prospective job seekers' personality traits would facilitate fit perception and ultimately foster applicants' attraction and retention.

Corporate branding, known as a precursor of economic success and survival (Mollerup, 1998), may also foster job seekers' attraction to the airline company. Specifically, advertisement and mission statement preparation should be focused on appealing to the airline's organizational and job characteristics to promote fit perception. Rebranding is a common practice among international airlines striving to sustained profitability in the air transportation market (Thurlow & Aiello, 2007).

In addition, branding should be aligned with CSR activities as there is rising concern among young graduates to choose socially responsible organizations and their actions are in line with reduced energy consumption and pollution (Albinger & Freeman, 2000; Duarte et al., 2014). For example, a "multicultural" branding strategy can be taken into consideration to support diversity management as a core component of CSR initiatives, or the CSR philosophy can be reflected in the airline's commercially important symbols (e.g., the design of tailfins) (Thurlow & Aiello, 2007).

Success in organizational performance is highly associated with the quality and performance of its internal resources, of which human resources are considered valuable living assets of any organization. With a particular emphasis on human resources, service industries, including the airline industry, should invest in its human capital quality through proper design of organizational and job characteristics, enhanced fit perception, corporate branding, and CSR efforts. The proper adoption of relative strategies offered in ISM and the emphasis on the priority and driving power of one criterion over the other would act as a strategic tool for airline managers who are struggling to improve their competitive position in the air transportation market.

Limitations and future research directions

This study faced several limitations offering opportunities for further analysis. That is, key compositional components of AOA have been identified from the extant literature. However, the literature about the factors fostering AOA was scarce and the general configuration of criteria was adapted from various industries. Accordingly, it is highly suggested to make a fuzzy Delphi study to strengthen the primary list of factors based on the results of an in-depth interview. This would validate the finding at the first step (Koc & Boz, 2014). This study also used the Iranian airline industry as the context of the study. The study's single contextual and cultural approach may raise the issue of the generalizability of findings to other contexts. Therefore, it seems reasonable to replicate the study in other industries and other countries with different cultural backgrounds (e.g., China, Germany) to understand if contextual and cultural differences matter in the configuration of and interrelations among key factors affecting OA. Finally, the current article addressed significant factors which can improve airline attractiveness. However, some factors may also exist that act as barriers to airline attractions. Investigating barriers to airline attractiveness may contribute to the knowledge base by addressing barriers and proposing strategies to cope with those barriers.

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APPENDIX. SAMPLE QUESTIONNAIRE

Section I: Instructions: Please use the following scale to indicate the relative impact of each criterion on the other one.

Values	Explanation
V	Factor listed in row i facilitates reaching the factor listed in the column j
A	Factor listed in row i can be obtained by the factor listed in column j
X	Factor listed in the row i and factor listed in the column j help to reach each other.
O	Factor listed in the column i and the factor listed in the column j are unrelated.

Hint: Comparing factor A with factor B, the following table suggests that factor A would help to reach factor B.

Factors	A	B
A	-	**V**
B		-

Section II: Factors

1. Organizational characteristics (OC)
2. Job characteristics (JC)
3. Perceived fit
4. Corporate social responsibility (CSR)
5. Branding

Factors	OC	JC	Perceived fit	CSR	Branding
Organizational characteristics (OC)	-				
Job characteristics (JC)		-			
Perceived fit			-		
Corporate social responsibility (CSR)				-	
Branding					-

DOI: 10.30519/ahtr.819112

Advances in Hospitality and Tourism Research (AHTR) 2021
An International Journal of Akdeniz University Tourism Faculty Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online) 467-483
Webpage: http://www.ahtrjournal.org/

THE EFFECT OF COLOR IN AIRBNB LISTINGS ON GUEST RATINGS

Hyunkyu JANG [1]

Department of Marketing, Governors State University, USA

ORCID: 0000-0001-9081-1373

ABSTRACT

The present research analyzes the color scheme of more than 30,000 photos in Airbnb listings in New York City to examine the relationship between the color schemes of Airbnb properties and guest ratings. The research finds that Airbnb listings with black as the dominant background or foreground color and those with magenta as the accent color received lower guest ratings than listings with other colors. This research also finds significant interaction effects of color, saturation, and value (brightness) of accent colors, indicating that it is important to select an optional saturation and value for each color.

Article History

Received 31 October 2020
Revised 20 July 2021
Accepted 26 July 2021
Published online 28 July 2021

Keywords

Airbnb
guest star ratings
photos
color
hue
saturation

INTRODUCTION

Peer-to-peer sharing platforms such as Airbnb, Uber, and Zipcar have proliferated in the last decade. In particular, Airbnb has become a significant force in the tourism and hospitality industry. Over 150 million total guests have stayed at accommodations booked through Airbnb since it was founded in 2008 (Allyn, 2020). Airbnb currently offers over 7 million rental listings worldwide in 220 countries and regions (Barker, 2020).

The growing influence of Airbnb has led to an extensive body of literature exploring various factors related to Airbnb. A stream of prior research has used Airbnb photos to infer information from those photos such as the host's trustworthiness (Ert et al., 2016), facial attractiveness (Jaeger et al., 2019), facial expressions (Fagerstrøm et al., 2017), and race (Jaeger et al., 2019). Researchers have then examined the relationship between that inferred information and host/guest behavior. They found that

[1] Address correspondence to Hyunkyu Jang (Ph.D.), Department of Marketing, College of Business, Governors State University, USA. E-mail: hjang@govst.edu

guests would prefer to rent from hosts with positive (vs. negative) facial expressions (Fagerstrøm et al., 2017) and that hosts who were perceived as more (vs. less) trustworthy, attractive, or white tended to charge higher prices for their properties (Ert et al., 2016; Jaeger et al., 2019). However, these studies only used profile photos of Airbnb hosts, but not of the properties. Although the photos of properties may provide useful information about properties such as the color schemes of properties, little research has explored the influence of that information on guest satisfaction.

A wealth of prior research on tourism has investigated the impact of colors of hotel rooms (Lee et al., 2018; Siamionava et al., 2018), hotel lobbies (Countryman & Jang, 2006), and hotel bars (Lin, 2009) on guest emotions and satisfaction. For example, color was identified as the most influential factor affecting guest impressions of the ambience of hotel lobbies (Countryman & Jang, 2006). Hotel rooms with cool colors such as blue resulted in participant rankings that were more positive than hotel rooms with warm colors such as red in terms of guest wellbeing (Lee et al., 2018). Participants responded that they would enjoy staying in blue hotel rooms more than in red rooms (Siamionava et al., 2018). Although these studies have addressed the influence of colors in various ways, they have some limitations. First, the context has been limited to hotel facilities and does not include accommodation-sharing platforms. It is yet to be determined whether past findings on the influence of color applies in the peer-to-peer accommodation context. Second, all prior studies have used either experiment or survey methods. Respondents were exposed to visual materials (e.g., a photo of a hotel room) for a short time, whereas in reality, guests stay in a room for a longer time and could unconsciously get habituated to color stimuli. Participant responses based on imagined reaction to photos may not accurately predict responses to lived experiences. Third, color manipulation in experiments could be extreme and artificial, with the entire color scheme of rooms appearing reddish or bluish, which rarely occurs in actual room color schemes. Someone who indicated that he would not like to stay in an entirely reddish room might indicate a preference for a room with white walls and red accents (e.g., cushion, vase) over a room with white walls and blue accents. The use of extreme stimuli might limit ecological validity. Fourth, most past studies have compared two color schemes (e.g., red versus blue or warm colors versus cool colors). Moreover, those studies have only focused on one dimension of color (hue) rather than on different dimensions of color (hue, saturation, and value). Even though a color is red in hue, differences in saturation and value (brightness) could lead to differences in guest preferences. Although Siamionava et al. (2018) has considered three dimensions, they only investigated the influence of each dimension on psychological outcomes such as the dominance and arousal that participants experienced, but did not investigate the influence on guest evaluations.

The present research aimed to fill this research gap by analyzing guest rating data on actual Airbnb stays in New York City. More specifically it analyzed the photos of Airbnb property postings to obtain color information on those properties, using Microsoft Azure's Artificial Intelligence and Machine Learning service. The research then examined the impact of those property color schemes on guest star ratings. The purpose of the present research is to address the discussed limitations in past findings in the following ways. First, since the context is an accommodation-sharing platform, the present research can determine whether past findings apply to accommodation-sharing platforms. Second, the guest evaluations the present research analyzed were made by guests who have actually stayed in Airbnb properties and were naturally exposed to color stimuli. The data can better identify the relationship between guest evaluations and colors. Third, the present research separately analyzed dominant background color, dominant foreground color, and accent colors in an Airbnb property. The results of this analysis can provide more detailed guidelines for room color design. Fourth, the present research analyzed the different dimensions of color (hue, saturation, and value). Therefore, the interaction effects of different dimensions could be obtained. In other words, the present research addressed which saturation or value within a single hue would lead to a better guest rating. The present research sought to answer the following research questions: 1) Do past findings that blue rooms are preferable to red rooms in the hotel context hold true in accommodation-sharing platforms? 2) Which background, foreground, and accent colors result in better guest evaluations than other background, foreground, and accent colors?

LITERATURE REVIEW

Most prior research has split colors into two categories, warm colors (red and yellow) and cool colors (blue and green) and contrasted the effect of red versus blue on various affective, cognitive, or behavioral outcomes. Red has been found to be more arousing than blue or green (Jacobs & Hustmyer, 1974; Wilson, 1966). Anger has been found to increase the blood flow in the face and redden the face (Drummond & Quah, 2001), enhancing the performance of athletes (Coleman & Williams, 2013). An analysis of

Olympic combat sports (e.g., boxing, taekwondo, and wrestling) revealed that players wearing red won more games than those wearing blue even though players were randomly assigned to red or blue outfits (Hill & Barton, 2005). Similarly, red has been found to boost performance in team sports such as soccer more than other colors (Attrill et al., 2008). Hill and Barton (2005) suggested that redness during aggressive interaction might serve as a signal of dominance. When viewing opponents wearing red (versus blue), observers are more likely to feel that opponents are more dominant and threatening (Feltman & Elliot, 2011).

Although red has been found to exert a positive effect on athletic performance, red has also been found to undermine performance in some achievement contexts (e.g., testing). Viewing red impairs performance on an IQ test compared to viewing green or achromatic colors such as gray (Elliot et al., 2007). Elliot et al. (2007) proposed that red is often associated with danger and failure (e.g., stop signs, incorrect answers marked with red ink) and activates the motivation to avoid failure, which negatively influences performance by causing anxiety and distraction. Mehta and Zhu (2009) suggested that the influence of red (versus blue) color on performance depends on the type of task rather than being either completely positive or negative. According to Mehta and Zhu (2009), red evokes an avoidance motivation and improves performance on detail-oriented tasks (e.g., proofreading), whereas blue evokes an approach motivation and enhances performance on creative tasks (e.g., generating as many creative uses of a brick as participants could).

The influence of color has been actively explored by consumer behavior researchers. Consumers associated blue with trustworthiness; red with love; and black with power (Jacobs et al., 1991). Some studies have found that consumers respond to blue more positively than to red. For example, a blue retail environment produced greater pleasure and greater likelihood that the consumer would buy a TV than a red shopping environment (Bellizzi & Hite, 1992). Stores with blue-colored exteriors led to lower perceived crowding, higher perceived service quality, and more favorable shopping intentions than stores with orange-colored exteriors (Yüksel, 2009). Stores with blue interiors led to more favorable evaluations and greater purchase intentions than stores with orange interiors (Babin et al., 2003). Consumers selected blue most frequently as the best match for still and sparkling water bottles over red or green bottles (Ngo et al., 2012). However, other studies have suggested that the influence of color on consumer preferences depends on the type of product. Bottomley and Doyle (2006) suggested that consumers view blue as more appropriate for logos of functional products (e.g., car tires , power tools) and red as more appropriate for logos of sensory-social products (e.g., amusement parks, perfumes). Hanss et al. (2012) investigated the appropriateness of color for different car types, finding that compact cars, sports cars, and convertibles were most frequently associated with red; sedans with black; vans and station wagons with purple–blue; and all-terrain vehicles with green. These findings indicate that the effect of color is dependent on the consumption context.

As the importance of the internet to business increases, consumer research has focused on e-atmospherics (e.g., Eroglu et al., 2003). E-atmospherics are defined as "the conscious designing of web environments to create positive effects in users in order to increase favorable consumer responses" (Dailey, 2004) and color has been explored as one of the e-atmospheric cues. For example, web sites with a blue color scheme were perceived to be more trustworthy than those with red or green color schemes (Alberts & Van Der Geest, 2011; Lee & Rao, 2010). Blue elicited more relaxed feelings than red or yellow, which led to faster perceived speed of a photo download on a real-estate website, more favorable attitudes toward the site, and greater likelihood of recommending the site to a friend (Gorn et al., 2004). Consumers reported they were more likely to purchase a book on a blue website than on a green website (Lee & Rao, 2010). These findings may seem to indicate that blue is more positive in the online shopping context. However, as shown earlier in other consumer research, the influence of color in online settings would seem to depend on the type of product. On websites selling jewelry and accessories (e.g., necklaces and watches), the color red led to higher arousal, which in turn led to greater behavioral intentions than blue (Wu et al., 2008). Although consumer responses have varied, emotional reactions to blue and red were consistent across different studies: blue elicits low arousal feelings (e.g., calm) and red elicits high arousing feelings (e.g., excitement). This may imply that the fit between level of arousal and the type of product/service is a critical factor determining consumer responses. Consistent with this prediction, Jiang and Wang (2006) suggested that high arousal increases service quality and satisfaction in the hedonic service context, but not in the utilitarian service context (Jiang & Wang, 2006).

A significant amount of research has demonstrated that the preferences, influences, and meanings of different colors also varies by country/culture, gender, and age (Aslam, 2006; Chebat & Morrin, 2007; Funk & Ndubisi, 2006; Jacobs et al., 1991; Madden et al., 2000; Puccinelli et al., 2013; Yildirim et al., 2007). For example, Jacobs et al. (1991) found that purple was associated with inexpensive products in the U.S., whereas it is associated with expensive products in East Asian countries. Madden et al. (2000) examined consumer preferences for colors in eight countries, reporting that preferences for blue, brown, gold, orange, purple, and yellow varied across countries, whereas preferences for black, green, red, and white did not. Male consumers are more likely than female consumers to perceive products as being sold at a lower price when prices are presented in red versus in black (Puccinelli et al., 2013). This implies that the location of travel destinations and tourist demographics need to be considered in examining the influence of color in the tourism context.

In summary, the influence of colors is context-dependent. It varies depending on country/ culture, age, gender, the type of product/service, and the type of task. Accommodation-sharing platforms like Airbnb and hotels are similar in both providing hospitality services; however, the two may differ in various aspects, including the demographic characteristics of guests (e.g., income, age), room prices, trust in service providers, and service quality expectations. Therefore, findings in the hotel context may not apply to accommodation-sharing platforms. The present research attempted to examine the influence of colors on guest evaluations in the newly emerging online accommodation context.

METHODOLOGY

Airbnb Data

An Airbnb dataset was obtained from Inside Airbnb[2]. The present research chose to analyze Airbnb data from New York City listings because many tourists visit New York City and prior research has analyzed Airbnb data from New York City (e.g., Jaeger et al., 2019). The dataset for the present research contained detailed information about all 49,530 New York City listings posted on Airbnb on June 8th, 2020.

The present research used guest star ratings as the dependent variable. Out of the 49,530 listings, 37,243 listings that had guest ratings were included in the analyses. The dataset contained guest ratings on a 100-point scale, which had been calculated by multiplying raw star ratings on a 5-point scale by 20, so the guest ratings reported in the current article were also on a 100-point scale. The dataset also provided the URL address of the cover photo of each listed property. The cover photo is the photo displayed in search results and the largest and the first photo of five photos displayed

[2] http://insideairbnb.com

on the page for each listing. Those cover photos were used to analyze the color scheme of each listed property.

Color Analysis

Microsoft Azure's Computer Vision service was used to analyze the color scheme of each property and Python programming language was used to request analyses for the 37,243 cover photos. Azure's Computer Vision service analyzes images, providing three types of color information: the dominant background color, dominant foreground color, and accent color.

Since the present research focuses on the interior colors of properties, only photos depicting the inside of properties were included for analyses. Azure's Computer Vision categorizes photos information according to content, such as "indoor" or "outdoor," so those categorized as indoor photos were used as depicting the interior of the properties. Photos categorized by Computer Vision as black and white photos were excluded from the analyses.

RESULTS

Out of the 37,243 listings with guest ratings, 48 photos were excluded: 37 photos were black and white and Microsoft's Azure was not able to provide color photo information for 11 other photos. This left 37,195 color photos. Out of the remaining 37,195 photos, 32,237 photos depicted the indoor images of properties, so the 32,237 photos were included for analyses. Guest rating was the dependent variable for all the following analyses.

Background and Foreground Color Analysis

White was most frequently identified as both the dominant background and foreground color (see Table 1). Grey, brown, and black followed white as the next most common dominant background and foreground colors, in that order. These four colors accounted for the dominant background colors for 97.86% of the listings and for the dominant foreground colors for 98.1% of the listings. Each of the other eight colors identified as dominant background or foreground colors accounted for only less than 1% of listings.

To examine the relationship between background colors and guest ratings, an ANOVA with background color as the independent variable was performed. The results indicated that background color was strongly associated with guest ratings (M = 93.87, SD = 9.17; F(11, 32,225) = 4.03, p

<.0001). Post-hoc multiple comparisons using the Tukey-Kramer test showed at the 5% significance level that the only significant differences affecting guest ratings were that grey and brown backgrounds were more positively associated with high guest ratings than black.

A similar ANOVA analysis performed for foreground colors demonstrated that foreground colors were also strongly associated with guest ratings ($F(11, 32{,}225) = 3.59$, $p < .0001$). Post-hoc multiple comparisons using the Tukey-Kramer test showed that at the 5% significance level the only significant differences affecting guest ratings were that grey and white foregrounds were more positively associated with high guest ratings than black. In analyses for both background and foreground colors, black was negatively associated with guest ratings.

Table 1. *Dominant background and foreground colors and guest ratings*

No.	Background colors			Foreground colors		
	Colors	**N**	**Ratings**	**Colors**	**N**	**Ratings**
1	White	10,212	93.82	White	12,112	93.94 [a]
2	Grey	9,699	94.06 [a]	Grey	8,727	94.09 [b]
3	Brown	8,350	94.02 [b]	Brown	6,374	93.93
4	Black	3,287	93.35 [ab]	Black	4,410	93.38 [ab]
5	Yellow	236	92.75	Red	176	92.20
6	Orange	185	93.34	Yellow	147	91.88
7	Red	109	93.75	Orange	99	93.82
8	Pink	73	93.96	Pink	74	92.91
9	Blue	33	91.00	Blue	66	91.41
10	Green	30	89.30	Green	29	92.00
11	Teal	17	87.71	Teal	16	93.00
12	Purple	6	86.00	Purple	7	97.57

Note: Colors that share a superscript were significantly different from one another in impacting guest ratings.

Accent Colors

Unlike background and foreground colors, Azure's Computer Vision provides HEX (Hexadecimal) color code[3] rather than color names such as white or black for accent colors. The present research transformed the HEX code of accent colors into a hue, saturation, and value (HSV) color space to analyze those three independent attributes of colors, as had prior research (e.g., Gorn et al., 1997; Siamionava et al., 2018; Thompson et al., 1992). Hue indicates color types such as red, green, or blue. Saturation indicates the

[3] A hexadecimal color code consists of six characters, every two characters ranging between 00 and FF to represent minimum versus maximum red, green, and blue components of colors (e.g., # 0000FF to indicate blue).

colorfulness or purity of a color: the lower the saturation, the more faded a color appears. Value indicates the brightness of a color. Saturation and value are expressed as percentages ranging from 0% to 100%, whereas hue is expressed as degrees from 0° to 360° on a color wheel, with both end values of hue indicating red (0° refers to red; 120° green; 240° blue; and 360° red again).

To understand the influence of accent colors on guest ratings, the influence of color types indicated by hue degrees was first investigated and then the interaction effects were examined between color types, saturation, and value. Based on hue degrees, accent colors were divided into six color groups. Two common methods for grouping colors were used: regular partitioning and color space clustering (Leow & Li, 2004).

Adopting the first grouping method, accent colors were partitioned into six color bins with equal intervals of 60 hue degrees (e.g., 30° to 90° assigned to the yellow color bin; see the "Regular partitioning" column in Table 2 for the color bins and hue ranges). An ANOVA with color bin as the independent variable was performed to examine the relationship between the six accent color bins and guest ratings. The results showed that guest ratings differed across the six accent color bins (F(5, 32,231) = 2.62, p = .0224). Post-hoc multiple comparisons using the Tukey-Kramer test revealed at the 5% significance level that listings with magenta (hue degrees of 270°~330°) as the accent color had significantly lower guest ratings than listings with red, yellow, cyan or blue as the accent color.

Table 2. *Accent colors and guest ratings*

No.	Regular partitioning			K-means for 6 clusters			K-means for 7 clusters		
	Colors	N	Ratings	Colors	N	Ratings	Colors	N	Ratings
1	Red (330°~30°)	16,012	93.9 [a]	Red (322°~360°)	1,347	93.6 [a]	Red (331°~360°)	1,268	93.6 [a]
2	Yellow (30°~90°)	11,499	94.0 [a]	Red-orange (0°~35°)	20,166	93.9 [a]	Red-orange (0°~31°)	15,592	93.9 [a]
3	Green (90°~150°)	205	94.1	Yellow-green (35°~101°)	6,175	93.9 [a]	Yellow (31°~74°)	10,348	93.9 [a]
4	Cyan (150°~210°)	2,477	93.8 [a]	Green (101°~182°)	296	93.1 [a]	Green (75°~154°)	515	94.6 [a]
5	Blue (210°~270°)	1,878	93.8 [a]	Blue (182°~250°)	4,110	93.9 [a]	Cyan (155°~210°)	2,370	93.8 [a]
6	Magenta (270°~330°)	166	91.5 [b]	Magenta (251°~321°)	143	90.2 [b]	Blue (210°~265°)	1,956	93.9 [a]
7							Magenta (266°~331°)	188	91.2 [b]

Note: Guest ratings for color groups with the "a" superscript are significantly greater than those with the "b" superscript within each column. The numbers in parentheses indicate the hue range measured in degrees for each color group.

For the second grouping method, the K-means clustering algorithm (MacQueen, 1967) was used. The clustering algorithm clusters accent colors that are close to each other in hue degree. Because of the unique and circular nature of hue data, one limitation of the algorithm in dealing with hue degrees is that the algorithm never classifies the hue of 0° and the hue of 360° into the same cluster, although they are exactly the same hue of red. Note that when using the regular partitioning method, the red color bin included hue degrees ranging from 330° to 360° and from 0° to 30°, while the clustering algorithm would assign two separate red clusters for each range, one ranging from 330° to 360° (red-magenta) and the other ranging from 0° to 30° (red-orange). To supplement this limitation, two separate K-means clustering analyses were performed, one dividing accent colors into six clusters and one dividing them into seven clusters (see the two "K-means" columns in Table 2 for details). The seven clusters looked to be more similar in terms of hue ranges to the six bins from the regular partitioning method than were the six clusters. Next, two separate ANOVA analyses were performed, one with the six clusters and the other with the seven clusters. The results of both analyses revealed a significant effect of accent colors ($F(5, 32{,}231)$s > 3.45, $ps < .0021$). Two separate post-hoc Tukey–Kramer tests for the six clusters and seven clusters confirmed that the magenta color had a detrimental impact on guest ratings at the 5% significance level, consistent with the results using the six bins from the regular portioning method.

Next, to examine the interaction effects of the six color bins (hues) from regular partitioning, saturation, and value, an ANOVA was performed (See Appendix for the full list of independent variables). The quadratic terms of saturation and those of value were included as independent variables because the relationship between saturation/value and guest ratings might be curvilinear (Guilford & Smith, 1959), implying that people's sensitivity to changes in saturation and/or value may differ before or after a certain threshold of saturation and/or value. The results demonstrated that the interaction between the quadratic term of saturation, the quadratic term of value, and the color bin was significant ($F(5, 32{,}231) = 2.90$, $p = .0128$; See Appendix for all the results). This indicates that the relationships between saturation/value and guest ratings are indeed quadratic and moreover the relationships depend on color type. Figure 1 illustrates the relationship between saturation, value, and guest ratings for each color bin. For example, for cyan, when the value was high, the more saturated the accent color was, the higher the guest ratings, whereas saturation did not influence guest ratings when the value was low. As to magenta, magenta was not always associated with low guest ratings, but rather a highly saturated magenta led to high guest ratings.

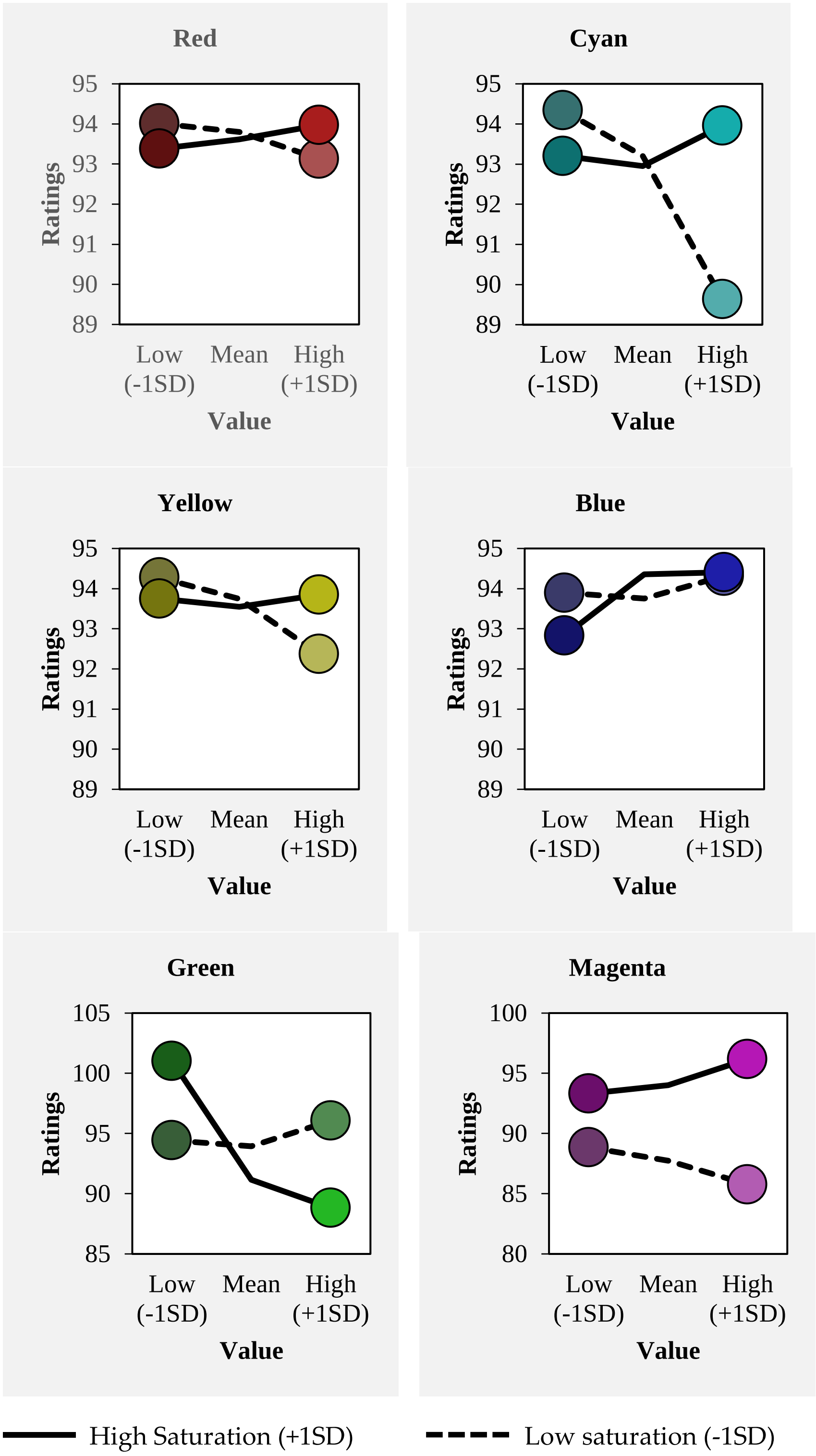

Figure 1. *The relationship of accent color bins, saturation, value to guest ratings*

DISCUSSION

The investigation of +30,000 Airbnb cover photos provided three findings. First, magenta as an accent color led to lower guest ratings in general. This reflects the finding that Americans associated purple with "inexpensive" (Jacobs et al., 1991). In contrast, in the same study, East Asians associated purple with "expensive." This may imply that color preferences on Airbnb properties differ by country. Since past research has demonstrated cultural differences in preference, meanings, and associations with colors (Aslam, 2006; Chebat & Morrin, 2007; Jacobs et al., 1991; Madden et al., 2000), future research needs to explore the effect of color on guest evaluations in other cities. Second, the influence of accent color on guest ratings depended on the extent of saturation and value, signifying the importance of selecting an optimal extent of saturation and value for each color type. More specifically, some colors such as red, yellow, and blue were relatively independent of the degree of saturation and value, whereas other colors such as cyan, green, and magenta were more dependent on the degree of saturation and value. This implies that hosts need to be more careful about saturation and value when selecting items that are cyan, green, or magenta. Third, black background and foreground colors led to lower guest ratings. Further investigation of Airbnb photos that were categorized as having a black background or foreground color revealed that those Airbnb properties typically had black bed sheets, sofas, rugs, chairs, televisions, or dressers. The atmosphere created by a greater number of black items might have led customers to be less satisfied while staying there or to have drawn other negative inferences. Future research can explore this topic.

The present research contributes to the literature on the influence of colors on guests in the hospitality industry (Countryman & Jang, 2006; Lee et al., 2018; Lin, 2009; Siamionava et al., 2018). Previous research has demonstrated the importance of colors, relying on responses of participants who were placed in hypothetical situations, mainly through surveys or experiments. The present research complements these previous findings by reporting the significant role of colors on actual guest ratings measured in real situations. These findings also provide a holistic view of the actual color composition of Airbnb properties. Warm colors (i.e., red, red-orange, yellow) were used more frequently than cool colors (i.e., blue, green, cyan) as accent colors although guest ratings did not differ for warm and cool colors. Also, background and foreground mostly consisted of achromatic colors (white, grey, and black) and brown, since walls and furniture are predominantly those colors. This indicates that the dominant color of rooms was rarely reddish or bluish, but rather rooms tend to have red or blue only as accent colors.

Most prior studies have compared cool colors to warm colors and found more a favorable effect from cool colors in terms of guest wellbeing (Lee et al., 2018) or greater enjoyment (Siamionava et al., 2018). In contrast, the current analyses did not find a significant difference between cool and warm colors. Several reasons may explain this lack of difference. First, differences in demographic characteristics between Airbnb guests and hotel guests might provide an explanation. Most Airbnb users are young people under 35 years old (Thompson, 2018). If Airbnb guests were younger than hotel guests and young people were more likely to prefer an ambience of high arousal (i.e., exciting) over low arousal (i.e., calming), rooms with warm colors would have received better evaluations in the Airbnb context than in the hotel context. As a result, there is no significant difference between warm and cool colors in the Airbnb context although cool colors were found to be preferred in the hotel context. Second, the regional characteristics of New York City might have caused the lack of any significant difference. Past studies did not specify the location of hotels in the scenarios, whereas in the present research, the location was specific and it was New York City. People who have visited New York City perceive the city to be highly arousing rather than relaxing (Phillips & Jang, 2010). The city is also known as one of the most exciting cities in the world (NBC New York, 2019). Tourists who choose the city as their travel destination tend to want to experience excitement rather than relaxation (Goossens, 2000), which might result in better evaluations for properties with warm colors. If this is the case, guest ratings for listings with warm colors should be lower in regions that tourists visit to experience relaxation. Third, differences in the salience of color could be the reason. In previous studies, the color factor may have been made more salient to participants. Participants in previous studies completed questions about dependent variables after responding to measures about the relationship between colors and emotions or after being shown stimuli that were quite different except as to color. This might have led participants to pay greater attention to or place greater weight on color in responding to dependent variables. Therefore, even if a difference between bluish and reddish colors existed in Airbnb listings, the magnitude of the difference captured by guest ratings might not be as large as in data from previous studies.

The present research has several limitations that can serve as valuable directions for future research. First, the region was limited to one city in the United States. Future research could expand the regional scope to multiple cities in the U.S. or to other countries and investigate similarities and differences between cities and countries in the influence of color on guest satisfaction. Second, the present research focused on the colors on the inside of rental properties (86.7% of all images collected from the postings), excluding from analysis the photos depicting some outdoor areas (13.3% of all images). Future research can address the influence on guest satisfaction of the color of the exterior of properties. Moreover, the influence of color on the inside may be different for different rooms. For example, red may have positive effects in kitchens, but negative effects in bathrooms. Future research can distinguish indoor areas more specifically and analyze them separately. Third, the present research analyzed guest ratings only at a certain point of time. However, the influence of a certain color may change over time as trendy colors in the fashion industry change. It is possible that a certain color that was viewed favorably in the past is now viewed as outdated. Therefore, it is also worth exploring the influence of color on guest satisfaction over a long-time horizon.

One of the key implications from the present research is that the influence of color is more complicated than the simple dichotomous red-blue relationship in prior research might have assumed. The current findings can serve as a starting point for future research on the different influences of various colors on guest satisfaction.

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APPENDIX

Annex 1. *The influence of color type, saturation, and value on guest ratings*

Variables	DF	Type III SS	Mean Square	F Value	Pr > F
Color type	5	1531.11	306.22	3.65	0.0027
Saturation	1	103.39	103.39	1.23	0.2672
Saturation × Color type	5	1139.66	227.93	2.71	0.0186
Value	1	265.65	265.65	3.16	0.0753
Value × Color type	5	361.97	72.39	0.86	0.5056
Saturation × Value	1	3.65	3.65	0.04	0.8348
Saturation × Value x Color type	5	448.31	89.66	1.07	0.3760
Saturation^2	1	21.41	21.41	0.25	0.6136
Saturation^2 × Color type	5	401.35	80.27	0.96	0.4434
Saturation^2 × Value	1	377.67	377.67	4.50	0.0339
Saturation^2 × Value x Color type	5	962.54	192.51	2.29	0.0430
Value^2	1	732.00	732.00	8.72	0.0032
Value^2 × Color type	5	942.49	188.50	2.24	0.0471
Saturation × Value^2	1	167.06	167.06	1.99	0.1584
Saturation × Value^2 × Color type	5	1252.60	250.52	2.98	0.0107
Saturation^2 × Value^2	1	411.55	411.55	4.90	0.0268
Saturation^2 × Value^2 × Color type	5	1216.53	243.31	2.90	0.0128

Note: Saturation and value were mean-centered.

Advances in Hospitality and Tourism Research (AHTR) 2021
An International Journal of Akdeniz University Tourism Faculty Vol. 9 (2)
ISSN: 2147-9100 (Print), 2148-7316 (Online)
Webpage: http://www.ahtrjournal.org/

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The editors of Advances in Hospitality and Tourism Research (AHTR) would like to thank the reviewers who have contributed to the success of the journal. We recognize the scholars who have completed reviews in 2021 and we appreciate their valuable time and effort to review the papers for AHTR.

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Reference to a book;
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